

**Proceedings of the 6<sup>th</sup> Annual South–  
East European Doctoral Student  
Conference**

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East European Doctoral Student  
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## Preface

The 6<sup>th</sup> Annual SEERC Doctoral Student Conference (DSC2011) took place on September 19<sup>th</sup> and 20<sup>th</sup> in Thessaloniki, Greece, and was organised by the South-East European Research Centre.

The aim of the conference was to initiate an exchange of knowledge between young researchers and to help establish a network of scholars currently undertaking research in South-East Europe. Having identified academic isolation as a problem that many doctoral students face today, SEERC aims to bring researchers together for establishing collaborative links between disciplines, for testing the ground for innovative ideas and for engaging the wider academic community.

Building on the success of the past five conferences, this year's conference attracted a large number of submissions resulting in 45 presentations of full papers and 3 presentations of extended abstracts. The audience of the conference expanded beyond the boundaries of South East Europe confirming the need for Doctoral Students to come together, discuss their experiences and gain external feedback to their work as well as listen to the progress and methodology of fellow PhD candidates.

The event commenced with welcome speeches from Prof. Panagiotis Ketikidis (Director of SEERC Doctoral Programme and Chair of DSC2011) and Mr Nikos Zaharis (SEERC Director). Key Notes speeches were presented by Prof. Richard Jenkins (Professor of Sociology, at The Department of Sociology at The University of Sheffield) on "Research Ethics" and Prof. Athanasios Tsaftaris (Professor at the Aristotle University of Thessaloniki and Director of C EARTH – Institute of Agrobiotechnology) on "Research Driven clusters as a way of enhancing cooperation between academia and industry". Special presentations and Workshops were presented by Dr Paul Knepper (Department of Sociological Studies-The University of Sheffield) on "Practical Uses of Theory in Social Science Research", by Dr Tom Stafford (Department of Psychology-The University of Sheffield) on "Communicating Research to the public", by Dr Cris Jones (Department of Psychology-The University of Sheffield) on "Online Attitude Assessment" and by Dr Ana Vivas (Department of Psychology, CITY College, The University of Sheffield) on "E-Prime". Prof. Tsaftaris

The scope of the conference was, again, multi-disciplinary spanning throughout the areas in which SEERC is doing active research and therefore it was divided into three parallel sessions:

- Enterprise and Regional Development
- Information and Communication Technologies
- Society and Human Development: Psychology, Politics, Sociology & Education

There were just over 115 submissions and of these 45 were accepted as full papers and 3 as extended abstracts. The full papers were divided as follows:

- 14 for the Enterprise and Regional Development track
- 8 for the Information and Communication Technologies track

- 23 for the Society and Human Development: Psychology, Politics, Sociology & Education track

One of the main objectives of the conference has been to provide an opportunity for PhD students to receive advice from experts in their chosen field of research. This would not have been accomplished without the participation of the invited discussants. The list of the discussants according to the research track is as follows:

### **Enterprise and Regional Development**

Dr Athina Vasilaki (Department of Business Administration & Economics, CITY College, The University of Sheffield, Thessaloniki, Greece)

Dr Konstantinos Priporas (Department of Business Administration and Marketing, University of Macedonia, Thessaloniki, Greece)

Prof. Dr.-Eng. Kostadin Kostadinov (VUZF University, Bulgaria)

Dr Athanasios Fassas (Department of Business Administration & Economics, CITY College, The University of Sheffield, Thessaloniki, Greece)

### **Information and Communication Technologies**

Dr Ilias Sakellariou (Department of Applied Informatics, University of Macedonia, Thessaloniki, Greece)

Dr Alexandros Chatzigeorgiou (Department of Applied Informatics, University of Macedonia, Thessaloniki, Greece)

### **Society and Human Development: Psychology, Politics, Sociology & Education**

Dr Filippos Proedrou (Department of Humanities & Social Sciences, CITY College, The University of Sheffield, Thessaloniki, Greece)

Dr Sara Hannam (Department of Humanities & Social Sciences, CITY College, The University of Sheffield, Thessaloniki, Greece)

Dr Paul Knepper (Department of Sociological Studies, The University of Sheffield, UK)

Dr Elvira Masoura (Department of Psychology, Aristotle University of Thessaloniki, Greece)

Dr Alexandra Pentaraki (Department of Psychology, CITY College, The University of Sheffield, Thessaloniki, Greece)

SEERC would like to thank all the above named discussants for accepting our invitation and providing their valuable feedback to the PhD students that made their presentations.

Finally, I would like to also thank the members of the Organising Committee, the authors of the papers, all the presenters and participants and our colleagues at SEERC that contributed in making DSC2011 a successful event. We are looking forward to the announcement of the 7<sup>th</sup> conference.

Panayiotis Ketikidis  
Director of SEERC Doctoral Programme and Chair of DSC 2011 Conference

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# **ENTERPRISE, INNOVATION AND DEVELOPMENT**

# Value Creation through Green Innovation in the Supply Chain: Evidence from Greek Manufacturers

*Andreas C.R. Baresel-Bofinger<sup>1</sup>, Panayiotis H. Ketikidis<sup>1</sup>, S.C. Lenny Koh<sup>2</sup>, John Cullen<sup>2</sup>*

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**Purpose:** The objective of this study is to examine how Greek manufacturing companies succeed in implementing practices to manage environmental aspects in all stages up and down their supply chain and what effect this process has on their environmental, economic, operational and social performance. In a globalized market with a growing awareness of an organization's ecological footprint an increasing number of companies worldwide understand the importance to implement green supply chain management (GSCM) practices. Nevertheless, environmental consciousness and environmental protection differ to a wide degree between countries. For the region of South East Europe there still exists a gap of theoretical and empirical research regarding GSCM. While Greece's business community is largely seen as having a low responsiveness to ecological challenges, this research takes a closer look into the pressures, motivators and impediments that Greek manufacturers experience regarding the implementation of GSCM and how far this can be regarded an opportunity for them to create additional value for their companies.

**Research Methodology/Approach:** Facing the relative novelty of the subject for Greece and the region of South East Europe and due to the scarcity of information, this research follows a qualitative exploratory research approach. On the base of a substantial literature review the research draws on a number of in-depth case studies across Greek manufacturing companies for the collection of relevant data. Semi-structured face-to-face interviews are conducted with several key personnel within the companies.

**Findings:** Findings of this research indicate that Greek manufacturers are aware of the general necessity to respond to the ecological challenge. Some major drivers are besides national and EU legislation also the personal values of management, the companies' customers and cost benefits. But implementation often lacks vigour. Major impediments are insufficient state infrastructure and lenient control of implementation as well as a lack of solidarity. While there is a rather vague approach to cost-benefit analysis and the use of relevant performance measures, the implementation of GSCM is seen as an opportunity for company growth and additional value.

**Originality/contribution:** This study enlarges the lean body of literature about GSCM implementation in South Eastern Europe. The findings illustrate to what degree and by which mechanisms Greek manufacturers attempt to incorporate an effective greening strategy into their overall business strategy. The practical motivators and impediments in this effort are exemplified. Progress, shortcomings and possible pitfalls are demonstrated.

**Practical implications:** This research aims to support companies in the region in their understanding of the link between implementation of innovative GSCM practices and their potential to increase company value.

**Limitation:** Restricted by the limited number of case studies, this research does not make a claim for generalisation of its results but rather provides an insight into a number of current problems that invite further empirical studies.

**Keywords: Green supply chain management, green innovation, environmental sustainability, manufacturing, South East Europe, Greece**

## **1. Introduction**

Industrial activities take their toll on the physical environment by exhausting natural resources and creating vast amounts of waste. Over the last decades society has become more sensitive regarding corporate responsibilities towards the environment and politics and businesses have taken actions. Companies attempt to respond to the need for greener practices by rebuilding their supply chains. Green supply chain management (GSCM) is a modern concept of management practices that encompasses the integration of environmental consciousness into all the aspects of the forward and reverse flow of goods and information in the supply chain (Zhu et al., 2005). European and national legislation, changing consumer demands and competitive pressure are some of the factors motivating companies to integrate environmental aspects in their corporate strategy. Nevertheless the pace of implementation of such actions varies to a large degree between countries worldwide (Grant Thornton IBR, 2011). Greece shows the characteristics of an economy with an emerging environmental sensitivity: a more relaxed implementation of environmental legislation and regulations, less advanced clean technologies and less sophisticated GSCM practices (Kassolis, 2007). At the bottom line a firm's decision to devote resources to environmental practices depends to a large extent on the balance between the costs involved and the added value achieved through such strategy (Bowen et al., 2001).

The objective of this research is to examine the adaptation process of green supply chain management (GSCM) practices in manufacturing companies in Greece and the potential of its effective implementation for adding company value. The study forms part of a larger PhD research about GSCM implementation in Greek manufacturing companies.

The following section provides some background information about GSCM concepts, drivers and barriers, performance and measurement tools. There is also a brief

summary of the Greek situation. Section 3 describes the methodology applied. Then the findings of case studies are presented in section 4. Section 5 discusses possible implications. Final section 6 concludes with suggestions for future research.

## **2. Research Context**

### ***2.1 Green supply chain management***

GSCM combines aspects of the two research fields of supply chain management and environment management. Certain aspects of GSCM, such as reverse logistics, reach back to the 1970s, while the main research interest began in the 1990s. An integral definition of GSCM is given by Hervani et al. (2005) who describe GSCM as a management approach to link environmental concerns with all stages of the supply chain comprising purchasing material, managing material, product and process design, inbound logistics, production, outbound logistics and reverse logistics. Other authors focus on specific aspects of the environmental supply chain, such as green purchasing (Preuss, 2005), green product design, green manufacturing or reverse logistics (Nunes et al., 2009).

### ***2.2 Drivers for implementation of GSCM***

There are a number of internal and external motives for enterprises to commit themselves to the implementation of green practices along their supply chain. Internal motivators entail personal values and commitment, backing up by management, cost reduction through minimization of material input and effort as well as avoiding liabilities for environmental damages (Handfield et al., 1997). Investors can play a motivating role as can the company's concerns about its reputation. Also a firm's size, available resources and existing technology can have a positive impact on its willingness to engage in green management practices along its supply chain.

External drivers are market forces such as competitors' environmental technological progress (Sarkis, 2003), international, European and national environmental legislation and regulations (Walker et al., 2008), pressure from various stakeholders, such as the community, as well as the degree of a company's environmental visibility (Bowen, 2000), and the way a company is successful in integrating its suppliers.

### ***2.3 Barriers for implementation of GSCM***

Min and Galle (2001) state the companies' concern related to increased costs for implementation of green measures as one of the main internal impediments for its realization. Studer et al. (2006) find that lack of the necessary resources, technology and environmental knowledge can be a major barrier. A lack of commitment through management as well as low priority of environmental concerns in the corporate strategy may hinder the successful integration of GSCM measures.

An immature market not appreciating environmental characteristic in products can be a major hindrance (Studer et al., 2006). A lack of environmental regulation and their enforcement as well as missing state incentives may prevent companies from successfully integrating environmental concerns in their supply chain (Porter and Van de Linde, 1995). Also the government's neglect to provide the necessary infrastructure, such as recycling and waste facilities, may deter companies from implementation of green measures. Another impediment can be the unwillingness of supply chain members to cooperate in between them due to the notion that this would cause breach of confidential information (Klassen and Vachon, 2003).

### ***2.4 Green measures and company performance***

A much regarded topic in research is the link between the adoption of green practices and its impact on company performance (Rao and Holt, 2005). Company performance relates to various levels, such as environmental, economic, operational performance, social aspects as well as value creation through management of intellectual knowledge (Chen, 2008). The financial and non-financial factors on these levels in regard to green practices can add to a company's value. Important is the implementation of the

appropriate measurement tools and the determination of the specific measurement targets (Zhu et al., 2005).

As examples for analytical and procedural environmental performance measurement tools Giama and Papadopoulos (2007) name, among others, life cycle analysis, environmental input and output analysis, and environmental risk assessment as examples for analytical tools, and environmental performance evaluation, environmental impact assessment, and environmental labeling as examples of procedural tools. Environmental performance indicators can either measure the degree of negative impact of a company's activities, such as energy consumption or CO<sub>2</sub> emission per production unit, or the environmental benefits resulting from a company's green activities, such as decrease of cost for materials purchasing or decrease of consumption of hazardous materials (Nunes and Bennett, 2007).

Regarding financial performance the traditional view suggests that there is always a trade-off between better environmental performance with poorer economic performance (Walley and Whitehead, 1994), whereas other researchers find a positive effect of greening the supply chain on a firm's economic performance (Alvarez et al., 2001). Thus, GSCM can cut the cost of materials purchasing and energy consumption, reduce the cost of waste treatment and discharge, and avoid a fine in the case of environmental accidents (Zhu and Sarkis, 2004).

Following environmental principles may increase a company's operational costs but as a positive effect it may also minimise scrap rate and inventory and can increase a company's product line or improve capacity utilisation (Zhu et al., 2005).

The successful implementation of green measures along the supply chain can also have benefits in regard to social aspects. These may be seen in an improvement of employees' health and safety and less turnover of the workforce. An efficient company policy of environmental reporting can make the company appear more transparent towards the community and strengthen trust and good relationships.

According to Chen (2008) green intellectual capital is the "total stocks of all kinds of intangible assets, knowledge, capabilities, and relationships, etc. about environmental protection or green innovation in the individual level and the organisation level within a company" (p.277). This green intellectual capital is needed by a company in order to

achieve a more environment friendly strategy and can be exploited in order to generate wealth.

## ***2.5 Greek environmental policy***

Greece is usually seen as a latecomer on the environmental scene, where compliance with environmental regulations is rather on a voluntary and incentive- based level than on a mandatory one (Kassolis, 2007). Husted (2005) argues that a country's social and institutional capacity for environmental sustainability includes, besides a nation's capacities for scientific research, production of environmental information, debate, environmental regulation and enforcement, also the private sector's responsiveness to environmental problems. According to research from the Grant Thornton International Business Report Greece is characterized as one of the economies with low perceptions of environmental friendliness within the business community (IBR, 2009). Kassolis (2007) explains the shortcomings in implementing environmental management practices in Greece by the existence of strategic, structural and procedural impediments.

## **3. Research methodology**

This study forms part of a larger PhD research investigating the circumstances under which GSCM practices are currently adopted in manufacturing companies in Greece and how they impact organisational performance. As the subject of GSCM is relatively new for Greece and sources are rather scarce, this research follows a qualitative exploratory research approach. The manufacturing industry has been chosen for its distinctive position in the context of environmental sustainable development. Supply chain management plays an eminent strategic role in that industry sector (Preuss, 2005).

This exploratory research applies a multiple case study approach. Mixed purposeful sampling was selected for in-depth study (Patton, 1990). Case selection was driven by the need to ensure a certain degree of variety of cases but still sharing some common

criterion. From the bigger sample for the underlying empirical study two case studies are included in this present paper. Company A is a manufacturer of building chemicals and pre-mixed mortars with 250 employees. Both companies have their own R&D department, have trading subsidiaries in the neighbouring Balkan countries and have international suppliers and clients. Company B is a producer of kitchen fittings and appliances as well as bathroom washbasins with 300 employees in Greece and another 150 in the subsidiaries abroad.

Data was collected from semi-structured interviews on a face-to-face basis. Based on a substantial literature review a semi-structured interview guide was developed. Based on a substantial literature review a semi-structured interview guide was developed giving the respondent and the interviewer opportunity enough to extend on various topics of interest. For finalization this guide underwent a test phase through discussions with academics and business people. The same interview guide was used for persons in various positions in the organisation. During four company visits a total number of eight interviews were conducted with seven interviewees from different levels of management. In all the cases the whole conversation was audio taped in order to improve validation of data. The interviews were transcribed verbatim and supplemented by further sources of evidence, such as in-house documentation, media coverage and direct observation through visits to the facilities.

In the analysis of data themes from clusters of meaning relevant to the GSCM issues raised in the research questions, and the identification of general and unique themes from the interviews were determined. Cross-case patterns were examined.

#### **4. Case study results**

As mentioned above, the purpose of this research is to examine to what extent manufacturing companies in Greece are adopting GSCM practices and how they expect them to add value to company performance.

#### ***4.1 Major driving forces and impediments for GSCM implementation***

In both companies under investigation we identified a number of internal and external drivers that are listed in table 1. In both companies EU environmental legislation plays a crucial role. Even though, adaptation of EU environmental law into Greek national law may come with a delay of one and a half years, as in the case of REACH, once in force it puts great pressure on the companies.

Drivers	
Company A	Company B
EU environmental legislation/national environmental legislation	
market research	
customer demands	
management values	
export country environmental legislation	
cost savings	
suppliers' suggestions	environmental audit by big customer
	production facility located in environmental sensitive area
to attract new international clients	

(the drivers are not ranked)

**Table 1 Major drivers for implementation of GSCM**

The companies that are preparing themselves in a proactive way on time for the coming regulations find it then easier to adapt themselves to the new legal situation, as

did company A, when they insisted on their suppliers' conformity with REACH even before it became national law. An important factor for both companies is also the environmental legislation in the countries to which they export. Both companies also conduct market research where occasionally green issues are examined in the context of competitors' activities and customer interest. If market research shows demand for a green product or new green technologies pushed forward by competitors the company's management together with R&D and other departments examine the option to follow that new course. On several occasions all three companies also face direct requirements by their customers, usually the bigger ones, to discuss implementation of environment friendly elements into their products and processes. The more important the client is the more willing the company is to respond to the request. This way company B, for example, reacted to the demand of one of its biggest customers to introduce pallets made out of recycled paper instead of wood. In both companies the values of the owners and top level management play a vital role.

Although in none of the interviewed companies the expressed values are directly focused on green measures they support their implementation in the wider context. The management of company A take it as a personal value to "do things right", as the technical support manager puts it. If this means that a product can be made less harmful towards the environment, then they try to take this factor into consideration. Company B also holds up ethical values of conducting business in a way that takes into account environmental concerns where possible. Based on these values the company decided for example, to install a system to check on fresh water leakage to minimize the use of the natural resource in spite of the fact that it does not pay fees for its water consumption. Companies A and B name also cost saving effects as an important driver for implementation of GSCM. Company A saves money by reusing the raw material that was wasted during the production process. Through the acquisition of new more efficient machinery company B can reduce the quantity of machine oil and lubricants used in the production process, thus cutting expenses on raw material and for waste removal. Company B takes the environmental audit done by their big customers as an obligation and to react to the criticism expressed and as an incentive to think about implementation of related steps along their supply chain. If such environmental audits are not satisfactory the companies can lose the order to competitors. Company A's dialogue with suppliers leads to new ideas for green actions if they seem to conform with other factors such as cost control and market demand. Company B's exposed location in an environmentally sensitive area urges them to be particularly careful with

the management of their waste water. Company A sees the implementation of GSCM also as a chance to attract new international clients with a heightened environmental consciousness.

#### **4.2 Major impediments for GSCM implementation**

There are a number of impediments that prevent the companies from the implementation of green management measures along their supply chain, which are listed in table 2. As one the major barriers both companies mention the existing insensitivity of the Greek market to environmental issues and the resulting unwillingness to pay for greener but higher priced products. Another factor that companies A and B mention is the low level of enforcement of environmental regulation through state authorities, which also leads to an unfair competition with many competitors not making the necessary expenses for the green measures required by law.

Impediments	
Company A	Company B
market insensitive for green issues/ high product price	
low level of state control of implementation of law	
	low green awareness in business community and public opinion
many competitors do not comply with law	
no green reporting	economic crisis
	high bureaucracy
	local authorities not very cooperative
	big suppliers' monopoly

(the impediments are not ranked)

**Table 2 Major impediments for adoption of GSCM**

As the head of production from company A puts it: *“Many of our competitors tend to circumvent environmental regulations and do get through with this behaviour due to lack of enforcement.”* Company B states that in some cases of green product design the monopoly-like position of suppliers prevents progress. Company B also hints to the difficult situation caused by the international financial crisis that hinders prioritizing green measures in a company’s business strategy. Company A does not publish green reports which would be an incentive to pay more attention to GSCM. Company B points out the general tendency of government agencies to restrict themselves to mere control instead of cooperation to receive better green results. Company B gives the argument that implementing GSCM measures requires a lot of bureaucracy in regard to the demands of the authorities.

#### ***4.3 Environmental management within organisation***

Both companies undertake a number of green supply chain management actions. Table 3 gives an overview of the GSCM actions that are realized within the companies. Both of them practice selective waste collection to give for recycling, such as plastic, paper, copper, steel and other materials. Company B cares for the disposal of toxic waste through specialized third parties. While company B has already received ISO 14001:2004 certification, company A is planning to do so within the next five years. Company B has also an EMS system in place. Company A is planning to set up own water treatment installation within the next five years but until now the cost-benefit analysis with regard to the amount of waste water to be treated favours the solution of collection through a third party for disposal at the public water treatment plant. Company B has installed a system to check on fresh water leakage in order to reduce waste of fresh water. Both companies collect used machinery oil and lubricants to give to recycling. Company A is giving office equipment, such as computers, monitors and telephones, which is replaced by new models, for further usage to second-hand users. Company B has replaced a machine for lubricating product parts that had a very inefficient use of lubricants with a more efficient machine that reduced the quantity of material used and of waste material to a large extent. Company B plans to replace Styrofoam packaging material by more environmental friendly cardboard packaging material. Company A has an on-site recycling programme that minimizes the waste rate of raw material used in the production process. Companies A and B use air filters and collect dust generated in the production process. Both companies also collect waste

water and biologically purify it. Company A also found a way to further improve the efficiency of its collection of waste water by diluting the waste water enriched with chemical substances with the less aggressive sewage water from regular office usage. Company B reduces the conductivity of waste water to a degree much below the level required by state regulations. Company B established good interdepartmental cooperation regarding green issues.

Green measures within organisation	
Company A	Company B
selective waste collection	
toxic/dangerous waste disposal	installed system to check on water leaks
plan to get ISO 14001 certification within the next five years	ISO 14001 certification
plan to install a biological cleaning treatment plant in the next five years	implemented EMAS
collection of machinery oil to give to recycling	collection of machinery oil and lubricants to give to recycling
payment of third party to collect recycle material (paper, steel, plastic, office equipment)	payment of third party to collect recycle material (paper, steel)
giving out-dated material to further user	replacement of inefficient lubricating oil engine
usage of air filters	dust collection
on site recycling programme	planned use of cardboard instead of styrofoam
waste water collection and biological purification	
improvement of efficiency of waste water collection	reduce conductivity of waste water
use of battery driven forklift vehicles within warehouse	good interdepartmental cooperation regarding green issues

changes in product and material specifications	
installation of more energy efficient production line machinery	
firm staff training and awareness campaign	
efficient usage of equipment to avoid unnecessary toxic waste	
efficient usage of detergents for cleaning machines	
modernisation of equipment to minimize scrap	
modern energy efficient office building construction	
search for package material with lesser environmental impact	

**Table 3 Green measures within organisation**

Company A recently installed a new production line which instead of assembly belts uses the force of gravity to forward material used in the production process. This measure reduces the required input of energy during production. The new set of machinery also helps to minimise the scrap rate. Utilisation of machinery is made more efficient. Large product orders are manufactured with a usage relation of old to new equipment of twenty percent to eighty percent. On the other hand, earlier considerations by company A regarding the replacement of conventional sources of energy through installation of solar cells have not been followed through due to negative cost-benefit analysis. For in-house transportation of material and goods company A uses battery-powered forklifts reducing air pollution and improving work conditions on the production and warehouse premises. In the production process company A makes an effort to reduce the amount of chemicals used for cleaning the machinery. Similar goods and goods of similar colours are produced in close time proximity in the production line. Hence, machinery has to be cleaned in lower frequency. Also the amount of chemicals used for cleaning machinery is reduced by applying an efficient water and pressure dosage. For the construction of company A's

administration building energy efficiency principles were applied, such as adjustment of sun impact to reduce energy consumption for heating and cooling. The latest effort of company A is the search for environment friendly package material for frequent transport of material and goods inside Greece.

#### ***4.4 Environmental management beyond company boundaries***

In order to improve environmental performance for all parties involved in the supply chain companies might use strong informational relationships (Cheng et al., 2008). A close relationship means that supply chain members share risks and rewards, can fully rely on each other, and are willing to maintain the relationship over a long time (Guimaraes et al., 2002). Min and Galle (2001) name as an initiative to enhance green awareness along the supply chain the screening of suppliers for environmental performance as well as strategies for source reduction promoting recycling of waste.

In that sense the GSCM measures that the three companies undertake do not end at the organisations' boundaries but go beyond reaching to suppliers, customers and community, as shown in table 4. Company A has achieved through the close cooperation of its R&D department with smaller suppliers environmental friendly changes in product design by eliminating hazardous material. The company also takes information from its suppliers regarding technological innovations regarding green product design. But on the other hand the company does not have the market power to tell their main suppliers to introduce green changes.

Green measures beyond organisation's boundaries	
Company A	Company B
cooperation with suppliers	supplier control only to the extent that they need to have the correct product certificates
attempt to influence smaller size suppliers for increase of environmental measures	check on second tier suppliers only in the case of requirement by big customers
combining environment friendly actions with social actions in community	preferred to have national suppliers because of good cost-benefit ratio, but must meet standars

**Table 4 Green measures beyond organisation's boundaries**

Company B checks its suppliers only in regard to them having the specific product certifications required by law, for example chemical products to prove specifications according to REACH. But they are not interested if their suppliers have implemented EMAS. Company B would also check on second-tier suppliers only in the case that a customer would specifically ask for that information. Company B preferably chooses national suppliers because of a good cost-benefit ratio.

## 5. Discussion

The results of the research show so far that the companies in the study are generally aware of environmental concerns but have not put them as a top priority in their general business strategy. A number of GSCM actions are implemented but, except when directly responding to environmental legislation and regulations, they are often rather embedded in a framework or executed with an intention not primarily named 'green'. Other objectives, such as saving costs, increasing efficiency or pushing innovation, stand in the foreground. A primary guideline for most green implementations in both companies appears to be the economic accountability. As one production manager puts it: *"First of all I think as a business man. If it does not save or make money, I hesitate to do it."* Nevertheless, personal values of management translated into the company's philosophy also allow for actions to go beyond the only required measure. On the other hand, 'green-washing', which is often witnessed in the market as an expression of companies' only superficial engaging in environmental issues without serious intentions other than marketing, does not seem to be one of the motivations for implementation of GSCM in the cases in this research. Companies rather neglect to adequately translate their green actions for marketing purpose. As the head of marketing of company A explains: *"I am cautious to promote our company as an environmental friendly one while we still have a number of environmental issues that would need improvement. We do not want to give an impression that we cannot uphold."* The question may be asked to what extent besides the honest intentions of management also the far-spread indifference of the national market regarding environmental concerns might play a role in that. Surely, this partial insensitivity of the

market towards green issues is a general hindrance for the development of GSCM implementation. So is the general lack of support from authorities or competitors.

The influence of international customers and suppliers appears to be the most important driver for the examined companies to engage in green measures along their supply chain next to legislation. While suppliers usually are not considered a motivation factor by themselves, their successful integration into a firm's supply chain management can result in the company's improved environmental performance, as argued by Vachon and Klassen (2006). Company A's good cooperation with its suppliers leads to green product design by eliminating hazardous material. This exemplifies the argument by Cheng et al. (2008) that a trustful relationship is necessary for green knowledge sharing. Nevertheless, in the case of company A the limitation could be made that a firm's market power has to be adequately big to make big suppliers participate in the process.

The various GSCM practices implemented by the companies under study have an impact on the companies' economic, operational and environmental performance and can increase their value. Efficiency of energy consumption has increased, quantity of raw material used has been reduced, the scrap rate has been diminished, and the use of recycled material has been augmented. To a certain extent products and processes have become more environment friendly. Claver et al. (2007) find that green measures that control environmental impact but do not remove it create costs for the companies but do not generate value. On the other hand, also these measures can help generate business as in the example of company A attracting a major foreign client due to the fulfillment of the environmental audit. Company A realizes cost savings through GSCM measures that reduce energy consumption. Operational performance of company A is increased through the minimization of scrap rate and the improved utilisation of machinery. Company B realizes cost savings by reduction of quantity of raw material used through acquisition of a more efficient lubricating machine. Company B would be able to improve its operational performance by realising the planned substitution of Styrofoam packaging with cardboard packaging as material handling is made lighter and easier and more storage space is freed for alternative usage. Both companies can increase clients' satisfaction by responding to their environmental demands.

According to Bowen (2000) the degree of a company's environmental visibility can be seen as often positively related to the amount of pressure they face to adopt green practices. Besides legislation, such pressure could be put on by a firm's competitors, as Zhu et al. (2005) argue, customers according to Green et al. (1998), or other stakeholders. In the present case studies the pressure from competitors and the public appears to be still rather weak. The presence of an environmental mission statement, a written environmental strategy and green reporting would strengthen the companies' focus on environmental measures. In all three companies improvements in the definition and implementation of measure items and targets as well as appropriate measurement tools for GSCM could be enforced in order to better administrate specified green knowledge and to enable a performance measurement regarding the impact of green practices along the supply chain. This would allow the companies to do a comparative cost-benefit analysis for implemented and future GSCM actions.

## **6. Conclusions and further research direction**

The research examined the adoption process of green supply chain management practices in Greek manufacturing companies. In the presented two case studies the drivers and impediments for implementation of GSCM were examined. Besides environmental legislation and regulations it is the management values that in particular further the implementation of green measures. Customer demands and cooperation with suppliers are also important enablers. One of the companies have ISO 14001 certification and has set up a control system to measure environment relevant data. Impediments are, among others, the rather environment insensitive national market, slow support by government agencies for green initiatives and weak state control of law implementation. There is also no clear priority for a green approach within the companies' overall business strategy. The companies under examination have introduced a number of GSCM practices within their companies, such as waste collection, recycling, reduction of raw material use, and beyond company boundaries, such as cooperative knowledge sharing with suppliers and customers for green product design. Generally, the green actions are done within a framework with a different focus, such as improving cost effectiveness or pushing innovation. The positive ecological effect seems to be rather a welcome side effect than a primary goal. Only when responding to environmental legislation, green measures are a direct focus.

Nevertheless, on occasion the companies go beyond the mere requirements with a beneficial effect on the community. Through GSCM practices and collaboration with other partners in the supply chain the companies increase specified knowledge regarding green issues. Green-washing does not appear to be a problem in the companies presented.

The implemented green measures have a positive impact on the environmental, organizational and economic performance of the companies. The definition and implementation of concrete measure items and targets seem indispensable for the improvement of more effective implementation of GSCM practices. In the absence of such measures, the impact on organisational performance as a company's value can be hard to determine and an important driver for implementation of green measures is missing.

This research is limited by the small number of case studies. Hence, its results cannot be generalized. Further research which incorporates a broader industry survey, also across different sectors, would be useful for practice. The aspect of cultural factors influencing GSCM implementation could be studied in greater detail in a comparative study across different countries.

## References

1. Bowen, F. (2000) 'Environmental visibility: a trigger for organizational response?', *Business Strategy and the Environment*, Vol. 9, pp.92–107.
2. Bowen F. E., Cousins P. D., Lamming R. C. and Faruk A. C. (2001) 'The role of supply management capabilities in green supply', *Production and Operations Management*, Vol. 10, No. 2, pp.174-89.
3. Chen, Y.-S. (2008) 'The Positive Effect of Green Intellectual Capital on Competitive Advantages of Firms.' *Journal of Business Ethics*, Vol.77, No. 3, pp. 271-286.

4. Cheng, J-H., Yeh, C-H. and Tu, C-W. (2008) 'Trust and knowledge sharing in green supply chains', *Supply Chain Management: An International Journal*, Vol. 13, No. 4, pp.283-295.
5. Giama,E. and Papadopoulos, A.M. (2007) 'Environmental performance evaluation of thermal insulation materials and its impact on the building' *Building and Environment*. Vol. 42, No. 5, pp. 2178-2187.
6. Grant Thornton International Business Report - IBR (2009) 'Global Overview 2009', available at: <http://www.internationalbusinessreport.com>.
7. Grant Thornton International Business Report - IBR (2011), 'Public Opinion Driving CSR activity' press release of 5 June 2011, available at: <http://www.internationalbusinessreport.com/Press-room/2011/CSR.asp>
8. Green, K., Morton, B. and New, S. (1998) 'Green purchasing and supply policies: do they improve companies' environmental performance', *Supply Chain Management*, Vol. 3, No. 2, pp.89-95.
9. Guimaraes, T, Cook, D., and Natarajan, N. (2002) 'Exploring the importance of business clockspeed as a moderator for determinants of supplier network performance', *Decision Sciences*, Vol.33, No.4, pp.629-644.
10. Handfield, R., Walton, S.V., Seegers, L.K. and Melnyk, S.A. (1997) 'Green value chain practices in the furniture industry', *Journal of Operations Management*, Vol.15, No. 4, pp. 293-315.
11. Hervani, A.A., Helms, M.M. and Sarkis, J. (2005) 'Performance measurement for green supply chain management', *Benchmarking: An International Journal*, Vol. 12, No. 4, pp.330-353.
12. Husted, B.W. (2005) 'Culture and ecology: a cross-national study of the determinants of environmental sustainability', *Management International Review*, Vol. 45, No. 3, pp.349-371.
13. Kassolis, M.G. (2007) 'The diffusion of environmental management in Greece through rationalist approaches: driver or product of globalisation?', *Journal of Cleaner Production*, Vol. 15, pp.1886-1893.

14. Klassen, R. D. and McLaughlin, C. P. (1996) 'The impact of environmental management of firm performance', *Management Science*, Vol. 42, No. 8, pp.1199-1215.
15. Klassen, R.D., Vachon, S. (2003) 'Collaboration and evaluation in the supply chain: the impact on plant-level environmental investment', *Production & Operations Management*, Vol.12, No.3, pp. 336–352.
16. Min, H. and Galle, W. P. (2001) 'Green purchasing practices of US firms', *International Journal of Operations & Production Management*, Vol. 21, No.9, pp.1222 -1238.
17. Nunes, B. and Bennett, D. J. (2007) 'How Green is Green? A Framework for Environmental Performance Assessment in Operations', in Gupta, S. and Coelho, J. (Eds.) *Proceedings of the 18th Annual Conference of the Production and Operations Management Society*, POMS/FIU, Miami, FL.
18. Nunes, K.R.A., Mahler, C.F. and Valle, R.A. (2009) 'Reverse logistics in the Brazilian construction industry.' *Journal of Environmental Management*. Vol. 90, No.12, pp.3717–3720.
19. Patton, M.Q. (1990). *Qualitative evaluation and research methods*, 2nd ed., Sage, Newbury Park, CA.
20. Pettigrew, A. (1990) 'Longitudinal field research on change: Theory and practice', *Organization Science*, Vol. 1, No. 3, pp.267-292.
21. Porter, M.E. (1985) *Competitive Advantage: Creating and Sustaining Superior Performance*, Free Press, New York.
22. Porter, M.E. and Van der Linde, C. (1995) 'Toward a new conception of the environment-competitiveness relationship', *Journal of Economic Perspectives*, Vol. 9, No. 4, pp.97-118.
23. Preuss, L. (2005) *The Green Multiplier: A Study of Environmental Protection and the Supply Chain*, Palgrave Macmillan, New York.
24. Rao, P. and Holt, D. (2005) 'Do green supply chains lead to competitiveness and economic performance?', *International Journal of Operations & Production Management*, Vol. 25, No. 9, pp.898-916.
25. Studer,S., Welford,R. and Hills,P. (2006) 'Engaging Hong Kong Businesses in environmental change: Drivers and Barriers',*Business*

*Strategy and the Environment*, Vol. 15, No.6, pp.416-431.

26. Vachon, S., und Klassen, R. (2006) 'Extending green practices across the supply chain: the impact of upstream and downstream integration', *International Journal of Operations & Production Management*, Vol. 26, No. 7, pp.795-821.
27. Walker, H., Di Sisto, L. and McBain, D. (2008) 'Drivers and barriers to environmental supply chain management practices: Lessons from the public and private sectors', *Journal of Purchasing & Supply Management*, Vol. 14, pp. 69-85.
28. Walley, N. and Whitehead, B. (1994) 'It's not easy being green', *Harvard Business Review*, Vol. 72, No. 3, pp.2-7.
29. Zhu, Q., and Sarkis, J. (2004) 'Relationships between operational practices and performance among early Adopters of green supply chain management practices in Chinese manufacturing enterprises', *Journal of Operations Management*, Vol. 22, No. 3, pp.265-289.
30. Zhu, Q., Sarkis, J. and Geng, Y. (2005) 'Green supply chain management in China: pressures, practices and performance', *International Journal of Operations & Production Management*, Vol. 25, No. 5, pp. 449-468.

# **Access to production factors and supporting institutions in SME clusters in selected countries in South Eastern Europe (SEE): the case of Bulgaria, Republic of Macedonia (FYROM) and Serbia**

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**Purpose:** In the literature a lot of discussions have been held about the benefits that clusters produce for their members, especially with regard to cost reduction as a result of better access to production factors and supporting institutions. As a rule, the

geographic concentration of companies organized in clusters produce benefits, mostly cost advantages, which are not available for companies outside of the clusters. The cost advantages can be based on better access to various factors, such as: access to financial resources, skilled labor, raw materials, information, technology, supporting institutions, business partners and geographically concentrated demand. This research paper explores the differences between the cluster members and non members, regarding their access to main production factors and supporting institutions. The research has been conducted in three countries in SEE (Bulgaria, Republic of Macedonia (FYROM) and Serbia.

**Research methodology/Approach:** For collecting primary data questionnaires were collected from 300 companies, 100 in each of the three countries – 50 cluster members and 50 non members.

**Findings:** In general cluster members believe they receive some benefits regarding access to main production factors as a result of being cluster members. Main benefit that they receive from cluster is access to information. There are also differences in how SMEs from different countries are assessing the same issues.

**Originality:** This paper is part of a bigger research about the use of cluster approach in increasing the competitiveness of SMEs in transition countries in SEE. No research on this topic with participation of SMEs from the selected countries has been done before. Findings of this paper could assist policy makers in the selected countries to design more efficient cluster policies and adapt them to their specific economic realities.

**Keywords: Clusters, SMEs, production factors**

## **1. Introduction**

According to the most prominent authority in the field of cluster approach, Michael Porter (1990) national industrial clusters are formed by firms and institutions linked

through vertical (buyer/ supplier) or horizontal (common customers, technology etc.) relationships, with the main players located in a single nation. The cluster approach focuses on the linkages and interdependence between actors in the network of production when producing products and services, which are supposed to contribute towards increasing the competitiveness of the cluster members.

The literature provides numerous examples that small and medium enterprises (SMEs) receive benefits as a result of participating in clusters. As a rule, the geographic concentration of SMEs organized in clusters produce mostly cost advantages, which are not available for other companies outside of cluster boundaries. The cost advantages can be based on better access to various factors as a result of geographical concentration, such as: access to financial resources, skilled labor, raw materials, information, technology, supporting institutions, business partners and geographically concentrated demand.

After providing a short overview from the literature review about the influence of access to production factors to the cost reduction in clusters, this research paper aims to explore if there is a difference between cluster members and non-members to the different production factors in three countries in South East Europe (Bulgaria, Republic of Macedonia (FYROM) and Serbia).

## **2. Access to production factors as a factor for cost reduction in clusters**

Although there are discussions whether clusters and clustering are primarily functional or a spatial phenomenon (Malmberg and Power, 2003), it has been recognized for a long time that related firms and industries tend to locate in certain geographical proximity. According to Wolter (2003) firms will concentrate in a location only if that agglomeration brings benefits to them, which are greater than the costs of locating in the area. He also distinguished between geographical benefits from agglomeration economies, and found that geographical benefits are related to a certain geographical location (e.g. specialized labour, infrastructure etc.), whereas agglomeration economies (benefits) describe how these and other factors are created by increasing the number of firms.

Geographical proximity creates competitive advantages to both SMEs, which closely cooperate and compete. Pouder and St. John (1996) concluded that competitors within the *cluster* will benefit from agglomeration effects in a way where they will gain cost advantages and have access to resources that are not available to competitors not located in the cluster.

The geographic concentration of clusters contributes to developing additional financial benefits (Krugman, 1991) and technological externalities (Belleflamme et al, 2000). According to Krugman (1991), in the presence of imperfect competition and increasing returns, one firm's actions affect the demand for the product of another firm. Technological externalities are defined as those consequences of activity which influence the production function not directly through the market (Martin and Sunley, 1996). As a result of participating in the cluster, communication between cluster members is strengthened and the exchange of knowledge is intensified. Besides the codified knowledge, which can be easily transferred through different communication media, the informal, or so-called tacit knowledge (Bergman and Feser 1999), is exchanged rather accidentally because the senders and the receivers are not aware of its relevance before they are involved in the communication process. Preissl and Silimene (2003) commented that the random information is transformed into a meaningful context through such tacit knowledge. Since it constitutes part of the assets of cluster companies, tacit knowledge is bound to geographic area where cluster members are located. The exchange of tacit knowledge, which is assumed to be essential for innovations, require spatial proximity because, of easy articulation, which is best shared through face-to-face contacts (Veterings, 2004). The second reason according to same author is that two companies and individuals located in the same region are more likely to have a background of similar behaviour, customs and traditions which eases the exchange of tacit knowledge. This tacit knowledge and social capital can sometimes play a negative role, since it creates an entry barrier for companies outside the cluster- for example if crucial business information is available only for existing companies inside the cluster (Portes and Landolt, 1996). Tacit knowledge enhances trust between cluster members and together with trust represents the intangible assets of the cluster. Unlike financial and physical ones, according to Kaplan and Norton (2004), intangible assets are hard for competitors to imitate, which makes them a powerful source of sustainable competitive advantage. When knowledge is considered, however, Giuliani (2005) argued that firm specific characteristics are very important in

the process of learning and innovation in the clusters. According to her when a cluster consists of firms with particularly weak knowledge bases, there are big chances that inter cluster relations will not be able compensate the lack of capacities to both transfer and absorb knowledge.

Due to geographical proximity clusters decrease the transaction costs (for example the costs of delivery) in that all stakeholders in a value chain and other related institutions are close to each other. The transportation costs are reduced due to the shorter distances, which by definition reduces the risks and therefore the insurance costs (Preissl and Solimene, 2003). They also found that costs for obtaining information could be significantly reduced due to easy access to information about cluster members and their specific competencies and reliability.

The concentration of more firms in an area initially decreases local costs because their presence leads to a greater emergence of providers of infrastructure, business services and so on. Wolter (2003) argued, however, that in some cases congestion costs might occur since infrastructure and other local factors cannot grow without limits. Clusters could emerge in the locations where there is specific infrastructure, enabling the participants to benefit from it. These can be specialised training institutions, communal infrastructure, telecommunications etc. At the same time, the developed infrastructure contributes to attracting new cluster members, willing to benefit from it. In many cases, the existence of a cluster also stimulates the formation of local support from institutions oriented to the specific needs of the cluster participants and they also stimulate and create specific infrastructure. Therefore, clusters often also include strategic alliances with universities, research institutes, suppliers of corporate services (brokers, consultants) and customers. Porter (1998) took account of this aspect with the determinant forms of specialization and networking. According to Wolter (2003), clusters help to establish co-operative linkages between companies through enhancing mutual learning and knowledge creation and knowledge can “spill over” between local firms due to the easier (informal) contact between them. Exchange of information between the firms allows exploiting knowledge externalities (Bagella et al, 1998).

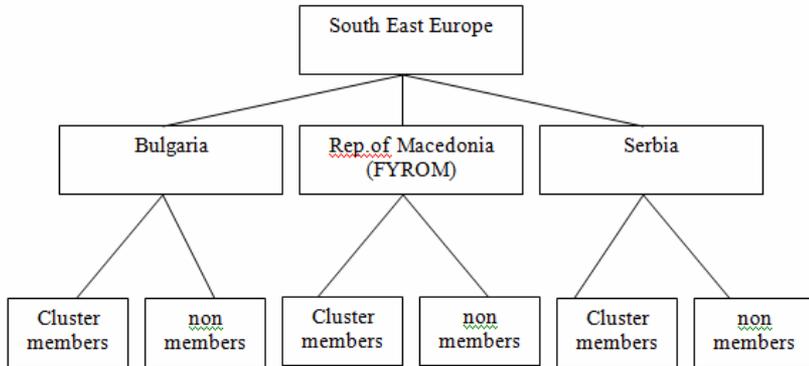
The rapid advances in information and communication technologies tend to develop virtual links between SMEs, thus overcoming geographical borders prompting Preissl and Solimene (2003) to suggest that clusters do not necessarily have to be locally defined entities. In contrast, Zaheer and Manrakhan (2001) suggested that the

introduction of a *Business-to-Business* (B2B) trading network increases the global market participation of firms from peripheral countries, but does not appear to reduce the importance of locational *clusters*; however, Preissl and Solimene (2003) admitted that, although in the age of Internet based technologies geographical proximity loses importance because of the easier access to information, still some valuable non-codified, but tacit, knowledge can be exclusively obtained within a cluster. Data that are codified, but tacit, elements convey only half the story and this is partly why Information and Communication Technologies (ICT) does not decrease the importance of geographically concentrated clusters (Andersson et al, 2004). Geographical proximity and informal communication and face-to-face contacts still matters (Storper and Venables 2002) and create competitive advantages, even though transportation and communication costs decline. Porter (1998) argued that this is the reason why the odds of finding, for example, a world-class mutual fund company in Boston, or textile-related companies in North Carolina, or high – performance auto companies in southern Germany are much higher than in most any other place.

### **3. Research methodology**

For collecting primary data questionnaires were used from both, cluster members and companies which do not belong to any cluster. In addition, semi-structured personal interviews were used. According to Saunders et al. (2003) the decision regarding whether the questionnaires should be used, among other things depends on number of the selected respondents the size of the sample, and type and number of the questions to be answered.

The questionnaires were self-administered and distributed electronically and by post to a sample size of 1000 companies, both cluster and non-cluster members, located in three countries. Figure 1 graphically presents the distribution of the questionnaires. Questionnaires were filled by 300 companies, 100 in each of the three countries – 50 cluster members and 50 non members.



**Figure 1: Distribution of the questionnaires**

Information about cluster members was obtained mainly from international donor organizations, which have initiated and supported clusters in each of the selected countries. Cluster members were considered only companies which participate in a formalized cluster. Members of business associations, consortiums, or any other type of networks or alliances were not considered as cluster members, but the questionnaire provides base for comparing their performance with cluster members. Non-cluster members were identified through databases of chambers of commerce, business associations, business support organizations and governmental institutions. At the beginning of the questionnaire the respondents were asked to state if they are belonging to a formalized cluster or to describe in what other kinds of cooperation networks they are involved in. This was especially important for those cases where it was not possible to differentiate cluster from non-cluster members in advance.

Due to the limitations of quantitative methods in researching behavior in social sciences, the quantitative research was complemented by a qualitative one, realized through semi-structured interviews. Before distributing the questionnaires, a pilot test was conducted with 15 companies in order to ensure its internal validity (Saunders et al, 2003). In addition, a telephone interview was conducted with cluster supporting institutions, both government agencies and international donor organizations on the one side, and SMEs which are, or are planning to become, cluster members at the other side. The institutions were asked three questions: a) what are the benefits that you expect companies to receive after becoming a cluster member, b) how do you measure competitiveness of the cluster members? and c) what are the criteria for making a good cluster. The companies were asked similar questions, but from their perspective.

The answers were used for giving alternatives in the designing of the questionnaire, which was distributed after the telephone interviews. The rest of the alternatives about preconditions and barriers for setting up a cluster were given based on the findings from the literature. In spite of all difficulties of conducting a qualitative interview by telephone, such as lack of reliability of received data or lack of control of non-verbal behaviour (Saunders et al., 2003) this method was chosen because only three questions were asked and the researcher has already established credibility with most of the interviewed institutions. In the process of identifying preconditions and barriers for cluster formation, the Act Frequency Approach was used as well. The act frequency approach is an approach that attempts to measure dispositions, or the tendency to behave in a certain way (Buss and Craik, 1983). The moment when the alternative answers are exhausted, further examination is not necessary.

“Semi-structured and in-depth, or non-standardized, interviews are used in qualitative research in order to conduct discussions not only to reveal and understand the “what” and the “how” but also to place more emphasis on exploring the “why” (Saunders et al.,2003, p.248). For analysing quantitative data from the questionnaires SPSS software package was used for statistical analyses.

For analysis of the questions in addition to Cronbach Alpha which was used for checking the internal validity of questions, factor analysis was used for grouping the questions. One way ANOVA served for comparing the mean scores between the cluster members and non-members and when there was a significant difference across

the variables between the countries post hoc analysis was used. In order to predict if a company is cluster member or not regression analysis was conducted.

The whole questionnaire consists of 35 questions, divided in four sections, but for the purpose of this paper, for assessing the access to main production factors, the following question was used:

- 1) As a cluster member, to what extent do you agree or disagree that your company has better access to: *(please rate from 1 = strongly disagree, 2 = disagree, 3 = neither disagree nor agree, 4 = agree to 5 = strongly agree )*

Statement	1	2	3	4	5
financial resources					
skilled labor					
raw materials					
supporting institutions					
business partners					
information					
technology					
customers					
other (please specify)					

After receiving the filled questionnaires, semi-structured interviews were carried out again with some of the respondents of the questionnaire survey to confirm the findings from the questionnaire and eventually to obtain additional, qualitative data for

investigating how different factors influence cluster performance. Personal interviews were conducted with a cluster sample of the selected companies, both cluster members and non-members.

## **4. Findings**

The Cronbach Alpha of 0.912 (above 0,5) proves the internal validity, indicating that there is a consistency between the answers and what is aimed to be measured is measured. In all of the analysed countries the value of Cronbach alpha is above 0,5 as well (Bulgaria - 0.907, FYROM - 0.904 and Serbia - 0.928).

### ***4.1 General perception of analysed SMEs (regardless if they are cluster members or not)***

Companies in all three countries (both cluster members and non-members) in general tend to disagree with a fact that being a cluster member or not influence their access to finance, skilled labour, raw materials, technology and customers. However, they think that being a part of cluster gives them opportunity for better access to information and supporting institutions.

The fact that clusters positively affects the access to business partners, information and business supporting institutions is confirmed by the position of surveyed non members, which feel that as a result of being outside of clusters they have more difficult access to information and business support institutions.

### ***4.2 Cluster members vs. non-members***

#### ***a) Cluster members vs. non-members in all three countries***

The results from the survey have been presented in a summarised table (table 1), where the average mean scores between the cluster members and non-members in all three countries have been compared.

	Total Mean			
	Overall	Cluster	Non-Cluster	Anova Cl vs. Nc
As (not) cluster member, to what extent do you agree that your comp. has better access to				
financial resources	2.94	3.11	2.76	0.007
skilled labor	2.70	2.95	2.45	0.000
raw materials	2.71	2.87	2.55	0.013
supporting institutions	3.33	3.51	3.16	0.002
business partners	3.26	3.55	2.98	0.000
information	3.60	4.03	3.16	0.000
technology	3.07	3.29	2.87	0.001
customers	2.98	3.22	2.75	0.000
Cronback Alpha		0.912		

**Table 1: Mean scores of cluster vs. non clusters in all three countries**

In general cluster members have higher mean scores than the non-members. However that doesn't mean that they are satisfied with the benefits they receive, because still average mean scores are not high.

According to the highest average mean score (4,03) the cluster members agree that they have better access to information.

Cluster members also believe that they have better access to business partners and business supporting organisations as a result of being involved in cluster activities.

However, it is evident that cluster members do not think that they have better access to raw materials and skilled labour, which are one of the most important benefits that clusters produce according to the literature and experience from industrialized countries.

The non members mostly disagree with the statements that they have difficulties to access the financial resources, skilled labour, raw materials, supporting institutions, business partners, technology and customers as a result of being outside of clusters.

Partly it could be result of not being aware of the cluster benefits, but according to the not very high mean scores of cluster members, most probably the non members might be right when they feel that they are not loosing anything with the fact that they are not participating in clusters.

The factor analysis indicates that according to the Component Matrix (Table 2.) the answers cannot be grouped in smaller groups.

	Component
	1
Access to - financial resorces	.716
Access to - skilled labor	.789
Access to - raw materials	.724
Access to - supporting institutions	.734
Access to - business partners	.849
Access to - information	.796
Access to - technology	.827
Access to - customers	.854

**Table 2: Factor analysis - Component Matrix<sup>a</sup>**

According to the regression analysis that has been conducted, the adjusted R Square for all three countries is .166 (Table 3), which means that based on the processed data we can predict if a company is cluster members or not.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.436 <sup>a</sup>	.190	.166	.458

**Table 3: Regression analysis**

*b) Cluster members vs. non-members in each of the selected countries*

When analysing by country there is the same conclusion that in each of the countries without exception cluster members have higher mean scores compared to non members regarding all of the variables (Table 4.).

It is also evident that cluster members in RM compared to cluster members in other analysed countries, are least satisfied with the extra benefits they receive as a result of being cluster members.

In Bulgaria cluster members have better access to information (4.26), business support institutions, business partners and financial institutions, compared to non members. In Republic of Macedonia (FYROM) it is the information where being a cluster member or not makes a difference, while in Serbia cluster members think that they have better access to information, business partners and supporting institutions.

When there was a significant difference across the variables between the countries post hock analysis was used (Table 6.).

	Bulgaria Mean				Macedonia Mean				Serbia Mean			
	Both	Cluster	Non-Cluster	Anova Bg	Both	Cluster	Non-Cluster	Anova RM	Both	Cluster	Non-Cluster	Anova Serbia
As (not) cluster member, to what extent do you agree that your comp. has better access to												
financial resources	3.30	3.58	3.02	0.016	2.60	2.69	2.52	0.401	2.91	3.04	2.77	0.190
skilled labour	2.66	2.86	2.47	0.074	2.58	2.85	2.33	0.008	2.86	3.15	2.57	0.007
raw materials	2.69	2.82	2.57	0.280	2.69	2.88	2.52	0.079	2.74	2.91	2.57	0.141
supporting institutions	3.45	3.76	3.14	0.002	3.13	3.25	3.02	0.252	3.42	3.53	3.32	0.259
business partners	3.28	3.67	2.88	0.001	3.22	3.33	3.12	0.274	3.29	3.64	2.94	0.002
information	3.72	4.26	3.15	0.000	3.49	3.85	3.16	0.000	3.57	3.96	3.17	0.000
technology	3.09	3.31	2.87	0.062	3.02	3.17	2.88	0.162	3.11	3.38	2.84	0.013
customers	3.02	3.26	2.76	0.025	2.81	2.88	2.75	0.509	3.13	3.53	2.74	0.001
Cronback alpha	0.907				0.904				0.928			

**Table 4: Mean scores of cluster vs. non clusters by countries**

## 4. Conclusions

In general cluster members believe they receive benefits as a result of being cluster members. However that doesn't mean that they are satisfied with the benefits they receive, because still average mean scores are not high.

Cluster members believe that they have better access to business partners and business supporting organisations as a result of being involved in cluster activities, but main benefit that cluster members receive from cluster is access to information.

	Anova Country (all)	Post hock analysis			Anov a Country (cluster members)	Post hock analysis			Anova Country (non members)	Post hock analysis		
		BG vs RM	BG vs. Serbia	Serbia vs. RM		BG vs RM	BG vs. Serbia	Serbia vs. RM		BG vs RM	BG vs. Serbia	Serbia vs. RM
As (not) clust. mem., to what extent do you agree that your comp. has better access to												
financial resources	0.000	0.000	0.026		0.001	0.000	0.051		0.037	0.028		
skilled labor	0.166				0.347				0.420			
raw materials	0.934				0.926				0.951			
supporting institutions	0.041	0.058		0.096	0.063	0.050			0.224			
business partners	0.902				0.260				0.476			
information	0.319				0.073	0.072			0.993			
technology	0.822				0.689				0.978			
customers	0.111				0.014			0.010	0.995			

**Table 6: Post hock analysis**

This shows that still clusters in the selected countries in SEE do not produce same benefits as in the industrialized countries, which might be a result of several factors, such as inappropriate environment for clusters, inadequate cluster support policy or insufficient capacities of cluster management. This can be a subject of further research.

This paper is part of a bigger research about the “Use of cluster approach in increasing the competitiveness of SMEs in transition countries in SEE”. No research on this topic with participation of SMEs from the selected countries has been done before. Findings of this paper could assist policy makers in the selected countries to design more efficient cluster policies and adapt them to their specific economic realities. In the phase of the further research the types of results that cluster-oriented assistance strategies bring in the transition countries in SEE will be examined.

## References

1. Andersson, T., Serger, S. S., Soervik, J. and Hansson, W.E. (2004) *The Cluster Policies Whitebook*. IKED, Malme, Sweden.
2. Bagella, M., Becchetti, L. and Sacchi, S. (1998) *The positive link between geographical agglomeration and export intensity: the engine of Italian endogenous growth?* Economic Notes, Italy, p.1-34.
3. Belleflamme, P. et al. (2000) An economic theory of regional clusters. *Journal of Urban Economics*; 48,No.1:158-84.
4. Bergman, E.M. and Feser, E.J.(1999) *Industry clusters: A Methodology and Framework for Regional Development Policy in the United States*, OECD (1999) *Boosting Innovation: the Cluster Approach*, Paris, OECD Publications.
5. Buss, D. M., and Craik, K. H. (1983). The act frequency approach to personality. *Psychological Review*, 90, 105-126.
6. Giuliani, E. (2005) The Uneven and Selective Nature of Cluster Knowledge Networks: Evidence From the Wine Industry, p.1-52 Web Site [online] Available from: <http://fp.tn.tue.nl/ecis/Seminars/Giuliani.%20Elisa.%2028%20June%202006.%20paper.pdf> Accessed [7<sup>th</sup> July 2006]
7. Kaplan, R.S. and Norton, D.P. (2004) Measuring the Strategic Readiness of Intangible Assets. *Harvard Business Review*, 82(2), p.31-43.
8. Krugman, P (1991) Increasing Returns and Economic Geography *Journal of Political Economy*, Vol. 99, No. 3 (Jun., 1991), p. 483-499
9. Malmberg, A and Power, D (2003) *(How) do (firms in) clusters create knowledge ?* DRUID Summer Conference 2003 Creating, Sharing and Transferring Knowledge. The Role of Geography, Institutions and Organizations, Copenhagen, p.15
10. Martin, R. and Sunley, P. (1996) Paul Krugman's Geographical Economics and Its Implications for Regional Development Theory: A Critical Assessment. *Economic Geography*, 72(3), p.259-292.

11. Porter, M. (1990) *The Competitive Advantage of Nations*. Free press, New York
12. Porter, M. (1998) Clusters and the New Economy of Competition. *Harvard Business Review*, 76(6), p.77-91.
13. Porter, M. (1998a) Clusters and the New Economics of Competition. *Harvard Business Review*, November/December 1998
14. Portes, A. and Landolt, P. (1996) The *downside of social capital*. American prospect, May-June, p.18-21.
15. Pouder, R. and St. John, C. H. (1996) Hot spots and blind spots: Geographical clusters of firms and innovations. *Academy of Management Review*, Oct. 96, Vol.21 Issue 4, p1192-1226.
16. Preissl, B. and Solimene, L. (2003) *Innovation clusters: Virtual links and globalisation*. Modena, Conference on Clusters, Industrial Districts and Firms: The Challenge of Globalisation held at University of Modena and Reggio Emilia.
17. Saunders, M. Lewis, P. and Thornhill, A. (2003) *Research Methods for Business Students*. 3<sup>rd</sup> edition. Prentice Hall – Financial Times an imprint of Pearson Education Limited.
18. Storper M. and Venables, J.A (2004) Buzz: face-to-face contact and the urban economy, *Journal of Economic Geography*, Oxford University Press, vol. 4(4), p. 351-370.
19. Weterings, A (2004) *The effect of spatial proximity on the innovativeness of software firms in the Netherlands: an empirical study on the firm level*, Economic geography, Utrecht University, the Netherlands 2004
20. Wolter, K. (2003) *A life cycle for clusters? The Dynamics Governing Regional Agglomerations*. Proceedings of the Conference on Clusters, Industrial Districts and Firms: The Challenge of Globalization held at University of Modena and Reggio Emilia. Modena, University of Modena and Reggio Emilia, p.1-46
21. Zaheer, S. and Manrakhian, S. (2001) Concentration and Dispersion in Global Industries: Remote Electronic Access and the Location of Economic Activities. *Journal of International Business Studies*, 32(4), p.667-687.

# Corporate Social Responsibility In The Developing Countries: An Effort To Create Index For CSR

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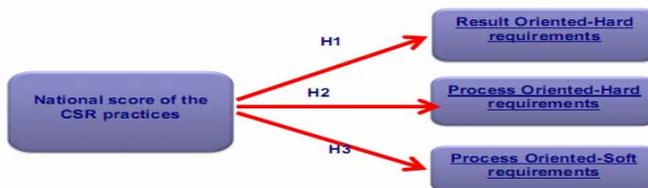
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**Purpose:** The aim of this paper is to develop an index for CSR in developing countries. Researches on the effect of national cultures on the CSR have focused exclusively on organizations operating in Western Countries and developed countries. There is inadequate knowledge about measuring of CSR activities in developing countries. The purpose of this paper is to contribute towards closing this gap in measuring of CSR in developing countries. Many of researchers suggest that CSR is applied distinctive across different social, economic, cultural, legal and political contexts (Moon and Matten, 2004; Habisch, Janker and Wegner, 2005; Blowfield, 2005; Midttun, Gautesen and Gjolberg, 2006). However, there are few efforts model to systematically measure and analyse the effect of nationality on CSR (Gjolberg, 2009). There are a few comparative studies about CSR and national culture, especially in emerging markets (Albaredo, Tencati, Lasono, et al. 2006; Brommer, Pavelin, 2005; Maignan, Ralston et al. 2002). Those studies cover a few countries and developed countries. One cannot generalize the findings from western developed economies to emerging economies without further research (Rettab et al. 2009). In this paper; we try to provide an empirical investigation into the CSR practices in an emerging market with different historical and cultural antecedents of

the CSR. Given that in emerging economies are embedded in different business systems from those of western firms (Aguilera et al., 2007; Campbell, 2006). Given the increased interest in corporate governance matters at the international level, the CSR play a central and fundamentally important role in the corporate governances of the MNEs due to the globalization forces. Therefore, the effect of the national culture on CSR is an important research question for specifically emerging markets (Ibrahim and Angelidis, 1995; Waddock and Graves, 1997; Ghazali, 2007; Luoma and Goodstein, 1999; Coffey and Wong, 1998; Johnson and Greening, 1999). However, the existing studies on the CSR of the international have largely focused on companies operating in developed countries. Institutional differences influence CSR practices of the companies (Doh and Guay, 2006). Doh and Guay (2006) stated that despite some evidence of governance, institutional differences among regions over the relevance and legitimacy of various stakeholders will continue to influence the CSR policies.

**Research Methodology/Approach:** The index construction is based on a formative measurement model, global CSR initiatives and rankings, relatively to the size of their national economies. The methodology was established within the framework of Gjolberg's (2009) study. The index is based on a mix of data sources. The universe in the present analysis was set to advanced on 31 developing countries in the Globe Model (House et al. 2004).

Research Model



***Findings:*** The present study has revealed a number of interesting findings that have implications for scholars and managers investigating CSR issues in emerging markets from the point of view of international management. Increasing national score of CSR practices, dimension of CSR initiatives are changing and moving towards from soft to harder.

***Originality/contribution:*** The contribution of this paper is to develop an index which compares national CSR practices in developing countries.

***Limitation:*** Despite the substantial and theoretical contributions, this study has some limitations that should be considered while interpreting its results. First of all, the study is limited with a relatively small sample size. The second limitation is that one dimension of CSR initiatives cannot be reached.

**Keywords:** CSR, national culture, developing countries

# Healthcare performance evaluation and inter-organizational learning: what might China learn from Tuscany?

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Inter-organizational learning is a key factor to improve healthcare system performance. Among international experiences, the Tuscany region in Italy is a good example in this aspect and China is yet to facilitate and promote inter-organizational learning in its municipal hospital systems. This paper introduces the Tuscan health information system, regional healthcare performance evaluation system, the payment rewarding system and how they provide a platform to enable inter-organizational learning. Integrated with China's practical situation, we try to explore how to conduct inter-organizational learning in the Chinese municipal hospital systems of experimental cities by referring to the Tuscan experience.

**Keywords** Healthcare performance; evaluation system; payment rewarding system; inter-organizational learning

## 1 Introduction

Performance evaluation system (PES) has been widely used worldwide in strategic management. Kaplan & Norton (2000, 2001) holds that the Balanced Scorecard (BSC) can also be applied into non-profit organizations after some dimensions have been modified. BSC and multi-dimensional reporting have become two typical theories embedded into the PES. A typical PES design considers financial and non-financial aspects to include various parts of an organization's performance and further evolves into multi-dimensions, transforming macro organizational strategies into micro performance indicators. Further, besides a strategic management tool, the PES can also be applied for organizational learning (Coghlan, 1997; Chenhall, 2005; et al.). Organizational learning is the bridge to learning organization (Senge et al,1994).

Argyris (1977a) classifies organizational learning as single loop learning and double loop learning. Sing loop learning is used to identify and correct errors in the tasks and actions, which is more related with adaptive learning. In contrast, in double loop learning, underlying assumptions, norms, and objectives would be open to confrontation. However, underlying assumptions and governing variables cannot be effectively questioned without another set against which to measure them. Further, Argyris (1977b) further examined the seven recommendations to make the implementation of MIS more effective in the light of a theory of organizational learning. To extend Argyris theory, we argue that inter-organizational learning can be considered as a special form of organizational learning, which can be built by constructing a learning network of organizations based on an adequate information platform. Generally speaking, PES can facilitate inter-organizational learning and has been widely applied for single loop learning. However, during the single loop learning, inter-organizational members may identify the problems existed in the evaluation system and come up with solutions to improve the system, making the learning process extended to double loop learning.

There are some studies in the building of learning organizations in a single hospital (Li and Guo, 2004; Rong, 2006; Zhang & Luo, 2008; Liu et al, 2010). However, the research in inter-organizational learning among hospitals in China is still at its early stage. In the previous market-oriented hospital system, public hospitals are competitors

and it is difficult for them to deeply learn from each other. However, in the new round healthcare reform, new hospital managing institutions have been established in many experimental cities to manage the municipal public hospitals that had been previously administered by the Bureau of Health, such as Shanghai, Jiangsu, Weifang, etc. Also, performance evaluation is being introduced into the hospital system, which has paved the way for the managing institution to conduct inter-organizational learning among its hospital directors. The core essence of inter-organizational learning is to make the hospital directors as the main learning subjects. Senge et al (1994) points out that, learning organization can provide a management idea. By reinforcing the driving forces of organizational learning, the whole innovation atmosphere can be built as well as forming good organizational attitudes. The external learning network of hospitals can further facilitate the construction of the internal learning hospital and finally improve the overall performance of the whole hospital system. However, there is very limited research in China about this.

The Tuscany region in Italy is a good example in inter-organizational learning in healthcare. The Tuscan healthcare services are mainly provided by 12 local health authorities (HAs) and 5 teaching hospitals (THs). The HAs are non-profit companies transformed from previous local health units. They are responsible for providing preventative services, primary services and hospital services. THs are managed mutually by the universities and the regional government, providing hospital and diagnostic services. The formulation of the Tuscan organizational learning in healthcare is originated from its special historic conditions. In 2003 the regional government decided to authorize Scuola Superiore Sant'Anna, a public university in Pisa, to develop a PES to evaluate the performance of the local HAs and THs in Tuscany, as well as developing a payment rewarding system (PRS) to connect the performance of the provider to the CEO's variable wage. After the PES has been fully implemented among all the HAs and THs since 2006, the healthcare performance of Tuscany is one of the best ones among other Italian regions. Moreover, its regional PES has been adopted by other 9 regions by 2010. The regional government uses its health information system (HIS), PES and PRS as the platform, on which the HAs and THs can do benchmarking together for their performance and the CEOs can learn from the best practice healthcare institution. Empirical evidences from Tuscany shows that, the PES can help to identify where to reallocate health resources at regional level based on performance evaluation (Nuti et al, 2010), and higher performance has produced lower cost (Nuti et al, 2011). All these are closely related with both organizational and

inter-organizational learning. China has been suffering from both high cost of providing healthcare services and the low efficiency and imbalance of health resource configuration, the Tuscan experience can be preferential for China's purpose on how to deal with its problems by constructing a regional PES, which can become sustainable by further constructing a network of inter-organizational learning in the hospital system.

In this paper we look at Tuscany as the research subject and try to explore how China might learn from Tuscany in inter-organizational learning based on the information platform.

## **2 The Tuscan information platform for organizational learning**

### ***1.1 The performance evaluation system***

In 2001, the Italian Ministry of Health started to encourage the regional governments to develop their own HIS to monitor the effectiveness and equity of healthcare services delivered by the public healthcare institutions. The Tuscan HIS can collect the data and information reported by each healthcare provider. However, most of the data and information gathered by the system were not processed properly and taken good advantage of. Data were not presented in a simple way and information was not adequate for decision-making, which were not good for the management of healthcare providers. The regional government decided to design and implement a PES that could emphasize the outcome produced by healthcare providers. In order to assure the usefulness, appropriateness and transparency of the system, the regional government decided to select a public university to develop and manage it. Among all the universities in Tuscany, Scuola Superiore Sant'Anna won the bid for its multidiscipline research background, professional health management knowledge and no business relationship with healthcare providers, while the University of Pisa, the University of Florence and the University of Siena have their affiliated teaching hospitals. Therefore, in 2004 MeS Laboratory was established by Scuola Superiore Sant'Anna, in

collaboration with the regional government, with the responsibility of developing and implementing a regional healthcare performance evaluation information system, to monitor the operations of the healthcare institutions and to make sure that the planned regional goals could be achieved (DRGT n.3065, 2003).

Originated from the balance score card theory, MeS Laboratory developed a multi-dimensional reporting system to measure the performance of the healthcare providers. The 6 dimensions are:

- A: Population health status, selecting five indicators such as infant mortality, population mortality, etc
- B: Regional policy targets, so that regional strategic objectives can be achieved in the way stated
- C: Clinical quality of care, including quality, appropriateness, efficiency, clinical risk management, balancing supply and demand, etc
- D  Patient satisfaction, mainly consisting of patient's experience and satisfaction of healthcare services they receive
- E  Staff assessment, mainly consisting of employee satisfaction with working conditions, training, and their managers
- F  Efficiency and financial performance, using financial indicators to precisely measure the annual performance of healthcare institutions

MeS laboratory further split these 6 dimensions into 50 index indicators and 130 sub-indicators. The laboratory designed a target diagram to represent all these dimensions, index indicators and sub-indicators, with 5 different coloured assessment bands representing different levels of performance (Fig 1). The classification of the 5 coloured bands is in reference of international standards and regional standards. The performance of every indicator will be transformed into a specific value fallen into a range from 1 to 5. The dark green (1<sup>st</sup> band) is nearest to the target centre, representing excellent performance, with performance value between 4 and 5. The light green (2<sup>nd</sup> band) is next to the dark green, representing good performance, with performance value between 3 and 4. The yellow (3<sup>rd</sup> band) is in the middle, representing ordinary performance, with performance value between 2 and 3. Indicators falling into this area have large space to improve their performance. The orange (4<sup>th</sup> band) is next to the yellow, representing poor performance, with performance value between 1 and 2. Although not possibly negative, performance of indicators falling into this area should be improved. The red (6<sup>th</sup> band) is at the edge of the diagram, representing very poor



All the performance results are open to all citizens through the web-based PES in an fixed long-term effective website. Detailed annual report is yearly published. By this means the citizens get involved into the process regarding how to allocate public resources to deliver values to the patients and healthcare users. The visibility and transparency of the system amplified the constraining effects of reputation and moral binding over the healthcare institutions, enabling them to conduct performance benchmark in a visual and convenient way (Brown et al, 2011).

## ***2.2 The payment rewarding system***

In order to further assure the successful implementation and operations of the PES, MeS Laboratory designed a PRS, which is connected to the PES to decide the major part of a CEO's variable wage. In 2006 the PRS was firstly linked to the PES, which contains the performance obtained by each HA/TH. Besides the PES, the financial results and conducted regional projects have also been considered as the constructs of the PRS. The PRS determines a CEO's variable part of his wage, which accounts for 20% of his total wage.

At the beginning of each year, the Regional Government identifies indicators, sets specific targets and determines the corresponding weights. If all targets are met, the sum of weights is 100% and the CEO obtains the total of his variable wage. Targets are differentiated for each HA/TH depending on their starting points. During the year MeS Laboratory provides a quarterly monitoring of the targets to be verified timely and systematically, supporting the periodic meeting between the Regional Councilor and each CEO. At the end of the year, the performance obtained on the indicators is evaluated according to the targets to be achieved, which will be further reflected in PRS. When a HA/TH reaches the determined level of performance on a specific indicator it will get the weight assigned to that indicator.

Table 1 is about the measurements and weights of the Tuscan PRS in recent years. We can see that, with the development of the PES year after year, the proportion of financial results to the variable part of a CEO's wage has decreased greatly from 50% in 2006 to zero in 2009; the proportion of regional projects conducted by the healthcare institutions has been increased significantly from 7.5% in 2006 to 31% in 2009 to determine a CEO's variable wage.

		2006	2007	2008	2009
Measurements and weights of the Tuscan PRS linked to a CEO's variable wage	Financial Results	50	28.6	20	0
	Regional projects	7.5	10.7	10	31
	The PES	42.5	60.7	70	69
		100	100	100	100
The PES Indicators and weights linked to a CEO's variable wage	Timeliness of information and data flows	2.5	-	-	-
	Overall performance	-	6	10	30
	Clinical Indicators	15	21.4	22	-
	Regional strategies	15	25	22	13
	Patient satisfaction	7.5	8.3	16	11
	Employee satisfaction	2.5	-	-	-
	Equity	-	-	-	5
	Improvement in critical indicators	-	-	-	10
	Total	42.5	60.7	70	69

**Table 1 The measurements and weights of the PRS linked to the variable part of a CEO's wage from 2006 to 2009**

Also from Table 1 we can see that, in 2006 some PES indicators were included in the PRS for a total weight of 42.5%. In order to assure the timeliness of data flows, the indicator "the timeliness of information and data flow" was created in the PES and

connected to the PRS, accounting 2.5% of the CEO's variable wage. Then in 2007 the indicator "overall HA performance" was created, to which a weight of 6% was given to this indicator as a percentage to decide the CEO's variable wage. In 2007, some of the PES indicators make up 60% of the CEO's variable wage. Later in 2008, the strategy was to increase the weight of the overall performance indicator up to 10% and further to 30% in 2009.

In 2006, CEOs gained among 49% and 73% of their variable wage, while in previous years they have all gained 99%. This indicated that the PES is an effective tool to link the performance of the CEOs and their variable wages. In 2007, the PRS was adjusted in terms of its rules of achieving targets: as long as the performance concerning a specific indicator is above the regional average, it will get 50% weight assigned to that indicator. For the remaining 50%, the weight is calculated in terms of proportion of the target reached. In any case, the best practice performer gets 100% weight for the specific indicator. In 2007, CEOs gained among 61% and 91% of their variable wage. In 2008, CEOs gained among 65% and 85% of their variable wage.

### **3 Inter-organizational learning in the Tuscan healthcare system**

#### ***3.1 Learning from collaborative development of the PES***

During the development process of the PES, the CEOs of the pilot HAs have participated in benchmarking and the following improvement activities. MeS Laboratory encourages these CEOs to learn from their output performance, which is helpful to better understand what the best practice is, contributing to the finding of key performance contributors. Besides, the PES was designed and developed under close cooperation of all sides. All of the participators (clinicians, CEOs, regional administrators etc) have shared their opinions during the development of evaluation indicators. This multilateral collaboration is important to the establishment of the mutual vision required by a learning organization, as well as reducing implementation resistances of the PES. During this process, all the involved parts have learned from the mutual development of the PES. When the PES is ready to be implemented, the

directors will then further pass the knowledge onto his subordinate staff, making the inter-organizational learning extended to organizational learning.

### ***3.2 Learning from regular meetings***

Meeting is common way of learning in the Tuscan healthcare system. Every three months the regional councillor discusses with each CEO independently about the performance they achieve. In order to make learning interactive, regular meetings have been held quarterly, where all the CEOs shall present and knowledge is exchanged among meeting members. Indicators will be reviewed and discussed and big improvements will be concerned. Here the CEOs of best practices will be asked to introduce how they have achieved their good results and will be questioned by peer CEOs. This process of confrontation is helpful to reduce performance gaming and to identify the real improvements, which can be possibly shared and recognized by other peer CEOs (Nuti, Vainieri and Bonini, 2008). These meetings become forums for the knowledge to develop and disseminate. Moreover, through regular meetings more trust has been cultivated for the CEOs to conduct more in-depth cooperation.

### ***3.3 Learning from benchmarking***

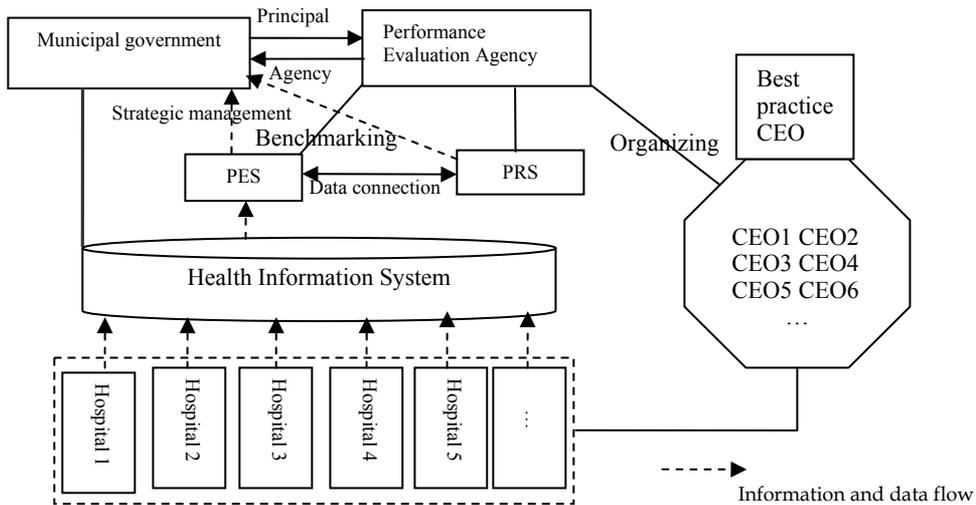
Benchmarking has been widely used for inter-organizational learning in the Tuscan healthcare PES. It helps the HA/THs to learn from each other, so that the defects of simple self-comparison can be overcome. Also the performance values resulting from the PES makes it possible to conduct more effective and more structural comparison between HA/THs. It is possible to find out potential problems that all the HA/THs or a single of them may have. If all of them have a poor performance value of a specific indicator, this may be caused by a general problem and thus should be given special attention to from the regional level. If there is big difference in performance value of a specific indicator between institutions, this reveals that some institution may study from other institutions for better experience. By sharing best practices, problems relevant to poor performance of a specific indicator may be found out. Thus the way how the performance is assured is closely related with the healthcare institution CEO.

### ***3.4 Learning from training***

In 2004, the regional government released regional decree No.713, which stipulates that top managers of HAs and THs should regularly accept training provided by MeS laboratory, making their knowledge structure and management skills adapted to the implementation and operation of the PES. These training activities directly facilitate the development, spreading, understanding and perfection of the PES, through which the relationship and trust among the members can be consolidated. This laid the foundation for their cooperation to learn from each other. In the meanwhile, MeS Laboratory actively participates in scientific research activities. Reputable scholars and practitioners in healthcare management worldwide are invited to present in workshops and seminars to exchange their experiences. CEOs of HAs and THs are required to participate, making their knowledge structure keep pace with the newest findings and practices. Besides, the laboratory despatches its researchers to the other developed countries such as United States, UK, Canada, Denmark etc to participate in academic activities, so that the experiences of other countries can be studied and considered for potential application integrated with Tuscany's own characteristics. These researchers will also pass the knowledge onto the top managers of HAs and THs when it is necessary.

## **4 Discussion**

The inter-organizational learning in the Tuscan healthcare system has overcome the problems previously existed in HIM by adopting the PES and PRS. It has extended the inter-organizational learning from single loop to double loop, making the learning process more effective. In return, this process makes the HIM, the PES and the PRS more adaptable to the requirements of all sides. In China's experimental cities, many municipal public hospitals are managed by a single hospital managing institution. Moreover, many hospitals are conducting performance evaluation and the PES as a strategic management tool is getting more and more attention. These contexts provide hospitals with some basis to conduct inter-organizational learning. In parallel, we propose the following conceptual model based on HIM, PES and PRS by considering the Tuscan experience:



**Figure 2: Inter-organizational learning based on HIM, PES and PRS**

#### ***4.1 Platform construction for inter-organizational learning***

According to Li & Jiang (2010), information systems applied in China's public hospitals have long been isolated from each other, which hampers knowledge sharing and learning. Many Scholars have called for connection between these information systems however a commonly accepted solution is yet to be identified. Referring to the Tuscan experience, the Chinese hospital managing institution can establish a hospital information system of its own and connect it to the information systems of its affiliated

hospitals. However, this accomplishment is just equivalent to the earlier level of Tuscany before they adopt the PES. Therefore, the hospital managing institution can further authorize a third party agency to develop a PES, which connects data directly from the information system of the hospital managing institution. In this way the resistance of data collection can be much smaller compared with collecting data from the information systems of the hospitals. As regard to data connection of those non-statistical indicators, the performance evaluation agency can conduct surveys and interviews. With the gradual perfection of the PES, data-sharing will be consolidated, and inter-organizational learning will be much more intensive and effective.

#### ***4.2 Mutual development of the PES***

Following the Tuscan experience, indicator selection is a key aspect in PES development. The selection of indicators can be acquired by broad literature review and reference to practice experiences home and abroad. Another ways is to make a group of professional experts as a panel to discuss and establish the indicators. As regard to the measurement of sub-indicators, to what extent they can reflect their index indicators has some debates. Besides, how to designate weights to the indicators is a question of multi-objective planning (Mao, 1991). How to make the planning more reasonable and fare is also a debate. In order to reduce all these debates, a consensus of opinions among the hospital managing institution, the performance evaluation agency and external experts, and hospital directors is necessary. Hospital directors can have in-depth understanding of the PES by participating in the mutual development, which can also help to reduce the resistance to change. When the PES is finished, the directors are less likely not to implement it.

#### ***4.3 Learning from regular meetings***

In the regular meetings the director of performance evaluation agency makes a summary of performance evaluation results in the given time period. These meetings can be held quarterly and presided by the director of the evaluation agency, where the directors of “the best practice” healthcare institutions present their experiences. According to Argyris (1977a), double loop learning always requires an opposition of ideas for comparison. Therefore, in the meeting, all the directors can discuss and

analyze together to figure out factors leading to poor performance to form corresponding solutions. The Tuscan experience shows that, the application of PES has resulted in the CEO's tendency of performance gaming, while inter-organizational learning (in the form of regular CEO meetings can help to constrain their tendency of conducting gaming. The Chinese managing institution shall consider this and minimize these gaming behaviours also by regular meetings matched with reputation management. If hospital directors are identified to have conducted performance gaming, they will suffer from both reputation damage and some variable wage loss as punishment. The regular meeting then also becomes a forum like Tuscany, in which the best practice hospital director has to explain how his teams achieved the excellent results and will be open to confrontation. The other peer directors have driving forces to question the best practice director. If they accept the higher performance with possible gaming, they may suffer from the evaluation agency's tendency of raising the performance criteria in the next period. If the performance made by the director is the real performance as it is, he may get some useful suggestions from peer directors and the latter can also learn good experience from the former. In this way, the inter-organizational learning is accomplished.

#### ***4.4 Learning from benchmarking***

Benchmarking has been widely used by Tuscany. In contrast, it has been mostly used by Chinese public hospitals to conduct self comparison. Although self comparison can help to find some problems existed in the hospitals, the scope is narrow and the bottleneck may not able to be overcome without studying from peer hospitals. Best practice experiences are difficult to be identified and innovative improvements are difficult to be achieved. Moreover, hospitals' behaviour of choosing another leading hospital spontaneously to do benchmarking is also difficult to go to deeper: hospitals are competitors and are unwilling to deeply share experiences between each other. In order to overcome these defects, the hospital managing institution can make the performance evaluation agency to do benchmarking across its affiliated hospitals. This can also help the sharing of best practice experience even in the context of competition. It should be noted that, an adequate motivation mechanisms should be in place to make the directors have incentives to do benchmarking and make real improvements after learning from the best practice. The PRS plays an important role to these aspects. Therefore, the PRS shall represent the core elements impacting the directors

behaviours towards making positive improvement efforts.

#### ***4.5 Learning from training***

Training as theoretical learning enables hospital managers to have the knowledge and skills required by the implementation of performance evaluation. The managing institution can authorize the performance evaluation agency to train hospital managers in accordance with their training demands. Before an improvement activity is launched by the hospital, the evaluation agency can train relevant personnel to make sure that the improvements can be carried out smoothly. Further, according to Argyris (1977a), the use of workshops and seminars could be a good way to alter the previous learning system that inhibits error detection and correction. The evaluation agency can regularly organize workshops and seminars to train its staff members to make them keep pace with newest research results worldwide. Workshops and Seminars can be diversified in their contents. It can be discussions either on performance evaluation experience of hospital directors, or on the latest research relevant to performance evaluation and healthcare management. Lecturers can be researchers from relevant healthcare associations and other scholars and practitioners home and abroad. These workshops and seminars can serve as forums in which the participators can learn from the lecturers. Questions can be asked about the problems that the participators have ever met during their work so as to mutually find a good feasible solution.

## **5 Conclusion**

This paper is a case study of inter-organizational learning of the Tuscan healthcare institutions based on its information platform. The Tuscany region emphasizes cooperation among healthcare institutions, while hospitals in China are market-oriented and have to survive by making revenues and profits. Competition is getting the better of cooperation. However, unfair competition has resulted in the imbalance of healthcare resource configuration, as well as low efficiency of providing healthcare services. Good experiences of excellent performance hospitals are difficult to be deeply shared and disseminated to other hospitals, and poor performance hospitals are not able to learn from others. The Tuscan experiences in inter-organizational learning

have provided China with a good example on how the government can commission a third party agency to build a network of learning organizations based on its HIM, PES and PRS as the information platform.

### References

1. Argyris, C. (1977a) 'Double loop learning in organizations', *Harvard Business Review*. Vol.55, No.5, pp.115-126.
2. Argyris, C. (1977b) 'Organizational learning and management information systems', *Accounting, Organizations and Society*. Vol. 2, No. 2, pp.113-123.
3. Brown, P. Vainieri, M. Bonini, A. Nuti, S. Calnan, M. 'What might the English NHS learn about quality from Tuscany? Moving from financial and bureaucratic incentives towards social drivers'. *Social & Public Policy Review*.
4. Chenhall R.H. (2005) 'Integrative strategic performance measurement systems, strategic alignment of manufacturing, learning and strategic outcomes: an exploratory study'. *Accounting, Organizations and Society*; Vol. 30, No.5, pp.395-422.
5. Coghlan, D. (1997). *Organizational learning as a dynamic inter-level process*. *Current Topics in Management*, 22, pp.27-44.
6. Decreto Regione Toscana n.3065. (2003) 'Approvazione dello schema di contratto fra la Regione Toscana e la Scuola Superiore di Studi universitari e di Perfezionamento Sant'Anna di Pisa per la progettazione di un sistema di monitoraggio del servizio sanitario regionale'.
7. Decreto Regione Toscana n. 713. (2004) 'Formazione manageriale per le funzioni direzionali del S.S.N. - Collaborazione con la Scuola Superiore Sant'Anna di Pisa'.
8. Kaplan, R.S. and Norton, D.P. (2000) 'The Strategy-Focused Organization', *Harvard Business School Press*, Cambridge, MA.
9. Kaplan, R.S. and Norton D.P. (2001) "Transforming the balanced scorecard from performance measurement to strategic management", *Accounting Horizons*, March, pp.87-104.

10. Li, B. and Guo, Y. (2004) 'The discussion of building learning hospitals in the health system reform'. *Chinese Hospital Management*, Vol. 24, No.8, pp.56-57. (in Chinese)
11. Li, L. Jiang, Y. (2010) 'Some problems regarding public hospital reform in China'. <http://finance.ifeng.com/opinion/fhzi/20100919/2636480.shtml>. (in Chinese)
12. Liu, W.W. Wang, Y.Y. Liu, C.J. (2010) 'The practical study of establishing research-oriented organizations in hospitals based on Senge model. *Chinese Hospital Management*, Vol.30, No.3, pp.41-43. (in Chinese)
13. Mao, BH. (1991) 'Analysis to evaluation Index with the determination of their weights'. *Systems Engineering*. Vol.9, No.4: pp.37-42. (in Chinese)
14. Nuti, S.Vainieri, M. Bonini, A. (2008) 'Managing gaming phenomena in the Tuscan performance evaluation system', Working paper n.01, Laboratorio Management e Sanità
15. Nuti, S. Bonini A. Murante A.M. Vainieri M. (2009) 'Performance assessment in the maternity pathway in Tuscany region'. *Health Services Management Research* (22), pp.115–121.
16. Nuti, S. Vainieri, M, Bonini, A. (2010) 'Disinvestment for re-allocation: A process to identify priorities in healthcare'. *Health Policy*, 95: pp.137-143.
17. Nuti, S. Daraio, C. Speroni, C. Vainieri M. (2011) 'Relationships between technical efficiency and the quality and costs of health care in Italy', *International Journal for Quality in Health Care*, Advance Access published March 31, 2011.
18. Rong, X.Q. (2006) 'The discussion and research on the common problems during the course of building learning hospitals'. *Chinese Health Economics*, Vol. 25, No.05, pp.76-77. (in Chinese)
19. Senge, P.M. Kleiner,A. Roberts, C. et. al. (1994) 'The fifth discipline fieldbook: strategies and tools for building a learning organization', Crown Business Press (1st edition)
20. Zhang, F. and Luo, Y.J. (2008) 'A brief discussion of building a leaning hospital and hospital culture'. *Modern Hospital Management*, No.3, pp.50-53. (in Chinese)

# Innovation Performance driven by relationships amongst networked organizations: Theoretical Framework Building

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**Purpose:** This paper provides a theoretical framework surrounding phenomenon of influence of relationships amongst organizations, type and strength of such relationship to innovation performance. Furthermore, the paper attempts to layout the path for further research on the subject based on the integrated theoretical framework devised. Understanding and researching factors affecting innovation performance in organizations is one of the essential components driving sustained competitiveness and economic performance of companies in today's global economic environment (Evangelista and Vezzani 2010; Yu-Shan *et al.*, 2009). Theoretical framework provided in this paper will be of a particular interest to scholars researching subjects of corporate performance, business strategy and innovation management.

**Research Methodology/Approach:** Theoretical framework was built through research of the existing body of academic literature on the topic of innovation management, in particular synthesizing several theoretical concepts into a single theoretical framework.

Through building the framework the focus was to observe innovation through a prism of corporate performance in reference to addressing relevant theoretical views of relationships amongst companies and other entities affecting innovation performance.

**Findings:** Performance of innovation and its impact on novelty depend on collaboration of an organization with other companies and entities, position of the company within such ecosystem; however type and strength of those relationships also influence the performance and novelty of innovations – typically classified in three categories - innovation novel for a company only, innovation novel for the industry or region and globally novel innovation. Performance of innovation can be evaluated through assessment of corporate performance in relationships with organization's innovation value chain, however also through assessment of innovation value chain of a group of organizations innovating jointly - i.e. networked innovation. Observing innovation performance, type and strength of relationships between organizations through the theoretical framework synthesized presents further research opportunities.

**Originality/value:** This paper provides academic value to scholars interested in researching the topics of corporate performance, business strategy and innovation management. Theoretical framework presented offers a unique synthesis of the existing body of academic knowledge in the context of corporate performance driven by innovation performance that is based on relationships amongst companies and other entities, hence providing an original view at the topic of innovation management.

**Keywords:** Innovation, management, performance, relationships, strategy

## 1. Introduction to the Subject

One of the major catalysts of the modern global economy is innovation. In order to adapt to continuously and rapidly changing global environment and customer

preferences, organizations have to continuously and systematically innovate (Evangelista and Vezzani 2010; Yu-Shan *et al.*, 2009). Innovation can radically disrupt and transform markets introducing new customer behaviours and provide a significant competitive advantage to organizations (Flynn, 2008; Mrinalini and Nath, 2008). Companies who innovate have a larger market share and are more profitable than compared to non-innovators (Leiponen, 2000; Fallah and Lechler, 2008).

Innovation management represents a consciences design and implementation of innovation system and its management in organizations with the main components of such design attributed to factors fostering the innovation environment – such are innovation culture, idea generation, development and commercial exploitation of innovations. The final outcome from implementing and managing such innovation system in organizations translates to new business opportunities, increased competitive advantage and improvement of organizational performance (Fallah and Lechler, 2008; Mrinalini and Nath, 2008; Goyal and Pitt, 2007; Stalk, 2006)

Innovation is defined as a practical and commercial implementation of a discovery (Letenyei, 2001) in the form of a successful introduction of a new process in organizations or a product into the marketplace (Ozgen and Olcer, 2007), bringing a positive, measurable business value to an organization (Narvekar and Jain, 2006; Goswami and Mathew, 2005). Novelty of innovation is differentiated between being novel only to an organization, novel to the industry or region, and innovation novel at the global level (Rivas and Gobeli, 2005). Innovation can be classified as incremental innovation - a process that introduces frequent smaller changes (an “evolution”) or as radical innovation – a process where radical discoveries (a “revolution”) are introduced at typically longer intervals (Flynn, 2008; Laukkanen *et al.*, 2008).

### ***1.1 Components of Innovation System***

Basic components of an innovation system influencing organization’s capacity to innovate, according to a number of researchers (Dervitsioti, 2010; Hansen and Birkinshaw, 2007; O’Connor and DeMartino, 2006) is viewed through the innovation value chain consisting of the following links:

- 1) Idea generation
- 2) Conversion of idea into projects (screening)
- 3) Project development and
- 4) Diffusion of innovation in the marketplace.



**Figure 1: Adopted from Dervitsiotti (2010), Hansen and Birkinshaw (2007)**

These links represent innovation value chain of how innovation value is created and transformed in each of the links throughout the innovation system – hence representing organizational capacity to innovate.

### ***1.2 Networked Innovation***

Some of the most successful global innovations are produced through a collaboration of a group of companies innovating collectively by combining their corporate resources, knowledge and experience, and also sharing risks and rewards of their innovation endeavours – concept known as networked innovation. Such combined resources typically translate to an increased capacity to innovate when compared with innovation capacity of a single organization (Andersen and Drejer, 2008; Pisano and Verganti, 2008). Similarly, networked collaborative innovation can produce larger financial returns to a company than compared to a company innovating by itself (Radiou, 2005).

It is important to note that concepts of innovation system applicable to a single company can also be applied to a group of networked companies as well if observing the group of companies as a larger distributed organization (Andersen and Drejer, 2008; Pisano and Verganti, 2008).

### ***1.3 Innovation Performance Measurement***

Measuring innovation performance is essential in properly managing the economic corporate performance (Dervitsiotis, 2010; Kianto, 2008; Paulson *et al.*, 2007). Innovation performance can be measured both internally - within an organization (Adams *et al.*, 2006) - and externally - when viewed as set of inputs received vs. set of innovation outputs produced by an organization (Dervitsiotis, 2010).

Observing innovation performance externally, Dervitsiotis (2010) suggests that innovation performance metrics should measure input resources required (e.g. human resources, investments, knowledge and others) and output – the number of new products, number of patents, revenue achieved and knowledge gained. Understanding ratios of inputs vs. outputs, the researcher argues it is hence possible to evaluate the innovation performance in terms of tangible inputs (i.e. investments, resources) and intangible inputs (i.e. knowledge) vs. the output of the innovation - tangible output (i.e. new products, patents, revenue) and intangible outputs (i.e. knowledge and experience) as a direct result of the innovation process. This is in line with the earlier definition of innovation arguing that innovation has to contribute a positive, measurable business value to an organization (Narvekar and Jain, 2006; Goswami and Mathew, 2005).

On the other hand, observing the innovation performance internally is focused on measuring a number of factors that contribute to innovation performance within the organization, and these according to Adams *et al.* (2006) are:

- inputs management
- knowledge management
- strategy and leadership
- corporate culture and structure
- portfolio management
- project management and
- commercialization.

It is interesting to note that this study was based on six previous innovation management research studies (1995-2002). Observing the innovation performance internally based on influence of these factors is in relationship to these factors

influencing the innovation value chain (Dervitsioti, 2010; Hansen and Birkinshaw, 2007; O'Connor and DeMartino, 2006).

It can be argued that one of the two approaches in measuring the innovation performance (internally and / or externally) is more suitable than the other; however Yu-Shan *et al.* (2009) argue that both are equally important in determining the corporate innovation performance. Measuring innovation performance internally within the organization is helpful in understanding and improving the organization's innovation capacity, whereas measuring innovation performance externally is helpful in understanding and improving the financial performance of innovation activities.

## **2. Relationships and Links in a Collaborative Network to Innovation Performance**

Relationships amongst the companies within the collaborative network in terms of the network size, strength of relationships amongst companies, and also density of the networks (number of peer organizations within the networks) influences the speed and effectiveness of organizational venturing (Oviatt and McDougall, 2005). Researchers argue that as the network size and strength of ties (links) amongst the companies is stronger, the organizational has a stronger performance.

### ***2.1 Types of Links amongst Networked Companies***

In terms of the type of the links amongst the companies engaged in a collaborative innovation network, also taking into consideration that innovation management concepts applicable to a single organization can be applied to a group of networked organizations when observed as a larger distributed organization (Andersen and Drejer, 2008; Pisano and Verganti, 2008), it is therefore plausible to believe that influence to innovation performance as per Adams *et al.* (2006) in the collaboration network can be related to the following types of factors / links amongst organizations:

Types of links amongst companies in collaborative network	
Links amongst companies to measure	Measurement factors
1. <b>Inputs transfer</b> amongst companies	Transfer People, physical and financial resources, tools
2. <b>Knowledge transfer and management</b> amongst companies	Idea generation, knowledge repository, information flows
3. Innovation <b>strategy and leadership transfer and alignment</b> amongst companies	Strategic orientation, strategic leadership
4. <b>Corporate culture transfer</b> amongst the companies and <b>structure of the network</b> of companies	Culture, structure
5. <b>Portfolio management</b> of the network of companies	Risk vs. return balance, optimization tools
6. <b>Project management</b> within the network of companies	Project efficiency, tools, communication, collaboration
7. <b>Commercialization</b> of innovative projects within the network of companies	Market research, market testing, marketing and sales

**Figure 2: adopted from Adams *et al.* (2006)**

The above types of links amongst companies within the collaboration network are supported with the following academic literature:

- 1) **Financial and Human Resources:** Muldowney and Sievers (2007) argue that allocation of financial resources plays one of the most critical roles in fostering innovation. Authors however argue that managers face difficulty in making decisions on allocation of financial resources for projects that do not provide clear measurements of innovation performance and for open-ended projects. Researchers (Miller, 2009; Shelton, 2009; Cheese, 2008; Hyton and Kelly, 2006) stress out the importance of human capital in the innovation

process arguing that talented employees increase the idea generation pool; they affect innovation performance and finally company's profitability. Miller (2009) and Hyton and Kelly (2006) argue that in order to create innovation environment, companies should start with the employee hiring process and evaluate new hires based on measurable skills contributing to fostering of innovative environment (such as talent, creativity, entrepreneurship) – hence populating company with human resources having an appropriate innovation capacity within, arguing that such employees are more likely to foster the corporate innovation culture.

- 2) **Knowledge Management:** Researchers (Hidalgo and Albors, 2008; Soosay and Hyland, 2008; Murray and O'Mahony, 2007; Shu-hsien *et al.*, 2007) agree that knowledge management is one of the most crucial elements in fostering innovation. Researchers (Soosay and Hyland, 2008; Murray and O'Mahony, 2007) believe that reusing the existing knowledge and recombining it creates new knowledge. Jon-Chao (2003) believes that new knowledge is predominantly created through knowledge sharing amongst entities. However, several researchers (Soosay and Hyland, 2008; Shu-hsien *et al.*, 2007) agrees that a limiting factor in knowledge accumulation and company's innovation capacity is company's capacity to absorb the knowledge – which, according to the researchers, can be increased in time through knowledge sharing. In addition Quinn (2000) argues that innovation requires a complex knowledge that can only be offered through a larger collaboration network of companies, hence supporting the notion that knowledge transfer amongst networked companies is essential in increasing innovation performance.
- 3) **Innovation Strategy and Leadership:** Researchers (Fortuin and Omta, 2007; Manley and McFallan, 2006) believe that innovation starts and is driven by business strategy – managerial decisions to pursue innovative activities – however they also believe that innovation activities must be aligned with the business strategy as one of the crucial components in company's performance. Innovation efforts amongst networked companies therefore need to be aligned with a common business strategy. Researchers (Scase, 2009; Ailin and Lindgren, 2008; Sarros, 2007; Ming-Huie, 2007; Yadav, M. *et al.*, 2007) have found a link between leadership and innovation

performance. Furthermore, researchers believe that innovation capacity is increased when managers are encouraging creativity amongst the team members. Researchers (Scase, 2009; Yadav, M. *et al.*, 2007) in their studies have found that top management attention and support to innovation activities is one of the most critical drivers of innovation in companies.

- 4) **Corporate culture:** Researchers (Sarros, 2007; Voelpel *et al.*, 2005) suggests that corporate culture (environment) fostering innovation is one of the most critical components stimulating the innovation process in organizations. Voelpel *et al.* (2005) and Moore (1993) believe that exchange of corporate innovation culture through development, passing and accumulation of cultural information within an organization and amongst the network links (partners, supply chain, stakeholders) fosters networked innovation.
- 5) **Portfolio Management:** Paladino (2007) stresses out the importance of financial performance to innovation success. Researcher believes that for a long lasting company performance, companies should focus on enhancing their innovation capacities. Flynn (2008) argues that the most common barriers to innovation in organizations are attributed to over reliance on market research in terms of risk mitigation. Researcher argues that evaluation of project with financial tools might eliminate good projects as new innovation projects are risky by their nature.
- 6) **Project management:** Researchers (Sirkin, 2007; Stalk 2006) argue that innovation is not only about ideas and creativity -- rather innovation management is a process that can be managed. Authors argue that innovation management process should be rigorously managed as any other process in an organization in order to produce innovative products and services. Stalk (2006) goes a step further in analyzing the innovation management process and argues that a very close attention should be put on development of innovation processes in organizations. In particular, he warns that companies often choose to develop fast and effective processes rather than slow and bulky ones. Author explains that companies driven by pressures of the global marketplace believe that fast and effective procedures will help them produce fast-to-market new products and services. However, researcher

argues while this might be true in a short run, companies do not realize that continuous innovation of fast-to-market new products and services is a systematic process requiring a number of different activities to work in coordination in a company – hence arguing that in a long term more complex processes are better suited in support of systematic innovation.

- 7) **Commercialization:** Researchers (Nylund, 2008; Selden and MacMillan, 2006; Voss, G. *et al.*, 2006) find a close connection between market research, innovation and company's performance (profitability) arguing that companies should research what kind of products and services markets require, including consumer preferences and consumer behaviours. Selden and MacMillan (2006) believe that many companies waste resources in various R&D projects by not taking market research into consideration – and once the product or service is developed, it is not well received in the marketplace. In order to alleviate such issues, researchers propose a closer connection of innovation activities with continuous understanding and improvement of the target customer segment and their preferences. In addition, researchers argue that such approach is also beneficial in properly communicating as well as improving the value proposition to customers.

## ***2.2 Strength of Links amongst Networked Companies***

The links found between organizations collaborating in a network typically vary in strength (Harryson, 2008). The researcher argues that weaker links amongst organization typically relate to exploration in creativity networks, whereas stronger links typically relate to exploitation in process networks. In this respect, the process network is closed and links are tightly coupled whereas in the creativity networks the links are more open and loosely formed – hence influencing the type and performance of innovation activities.

## ***2.3 Position of a Company within the Network***

In order to innovate within a network of organizations it is important for an organization to have the best possible peers within the ecosystem as according to

Moore (1993) the competition in the marketplace is truly between ecosystems, rather than individual companies. As such innovation performance is also dependent on an ecosystem and position of the company within such ecosystem. Researcher also notes that the most successful companies create new ecosystems - spin offs of new innovation - from the existing system.

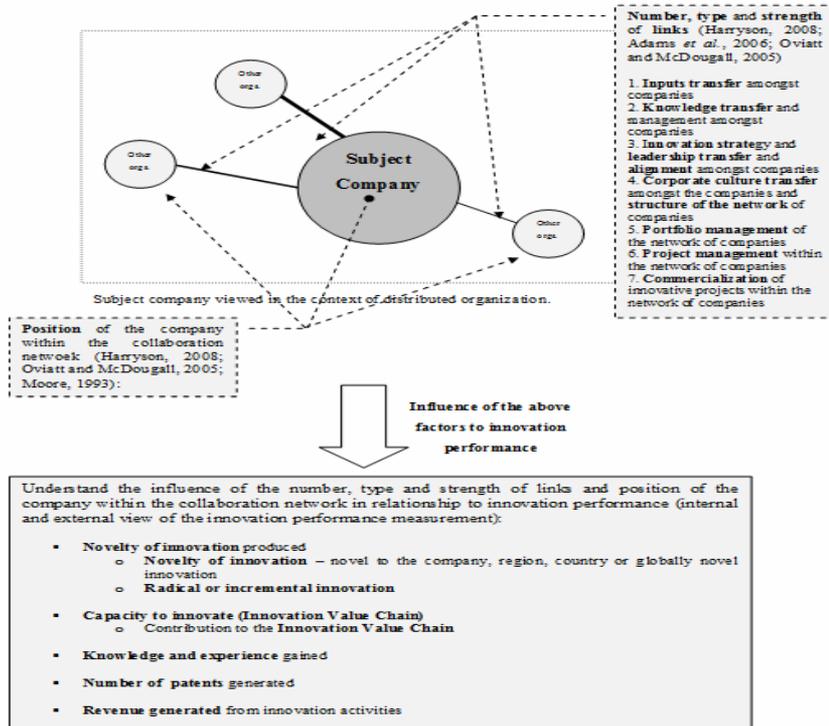
### **3. Integrated Theoretical Framework**

In order to observe innovation performance in the context of relationships amongst networked organizations the researcher has attempted to integrate the reviewed theoretical concepts into an integrated networked innovation theoretical framework by synthesizing the reviewed literature concepts into a single theoretical model.

The proposed framework aims to link factors influencing innovation performance in terms of the type and strength of links amongst networked companies, position of a company within the network and how do these factors affect innovation performance measured internally as well as externally to the company. With such approach the aim was to synthesise a theoretical framework that could be tested in practice and determine if the corporate innovation performance (and hence its attribution to the overall corporate performance) in terms of corporate innovation value chain, novelty of innovation produced, number of patents registered and revenue generated from innovation related activities can be linked to the type and strength of a number links observed within the innovation network of a company. If proved successful, such theoretical framework could be useful in better managing innovation activities in organizations and relationships with the environment it operates in. The model could provide valuable information to researchers as well practitioners in understanding the strongest and weakest factors that influence innovation performance in organizations, hence providing a framework to better understand as well as manage innovation activities in organizations.

The integrated networked innovation theoretical framework was built based on the theories supporting several types of links amongst organizations that contribute to

innovation performance on one side, and measurement of corporate innovation performance (internal and external view) on the other side.



**Figure 3: integrated networked innovation theoretical framework (synthesized by the researcher)**

The framework proposes to measure the number and strength of the links (in terms of the activity amongst the organizations) of the following types for each organization target sample:

1. **Inputs transfer** amongst companies – understand the transfer of people (Miller, 2009; Shelton, 2009; Cheese, 2008; Hyton and Kelly, 2006), physical and financial resources and tools (Muldowney and Sievers, 2007) amongst the sample organization and its network peers.
2. **Knowledge transfer** and management amongst companies – understand information flows amongst the companies, exchange of ideas and knowledge between the sample organization and its network peers (Hidalgo and Albors, 2008; Soosay and Hyland, 2008; Murray and O’Mahony, 2007; Shu-hsien et al., 2007).
3. **Innovation strategy** and leadership transfer and alignment amongst companies – understand strategic orientation, leadership and alignment of these factors amongst the sample organization and its network peers (Hidalgo and Albors, 2008; Soosay and Hyland, 2008; Murray and O’Mahony, 2007; Shu-hsien et al., 2007).
4. **Corporate culture transfer** amongst the companies and structure of the network of companies – understand the innovation corporate culture in the network and structure of the network viewed from the prism of the sample organization and its network peers Researchers (Sarros, 2007; Voelpel *et al.*, 2005; Moore, 1993).
5. **Portfolio management** of the network of companies – understand how risk vs. returns is being managed in relationship between the sample organization and its network peers (Flynn, 2008; Paladino, 2007).
6. **Project management** within the network of companies – understand how collaborative work is managed and procedurally executed amongst the sample organization and its network peers (Sirkin, 2007; Stalk 2006).

7. **Commercialization** of innovative projects within the network of companies – understand how market research and selection of innovative products is performed, including sales amongst the sample organization and its network peers (Nylund, 2008; Selden and MacMillan, 2006; Voss, G. *et al.*, 2006).

For each organization from the target sample the aim would also be to understand the innovation performance based on the internal and external innovation performance views, in relationship to the above outlined types of links and their strengths (in terms of the activity):

- **Novelty of innovation** produced
  - **Novelty of innovation** – how do links and relationships in the network attribute to novelty of innovation produced (novel to the company, region, country or globally novel innovations as per Rivas and Gobeli, 2005)
  - **Radical or incremental innovation** – how do links and relationships in the network attribute to type of innovation produced (radical or incremental as per Flynn, 2008; Laukkanen *et al.*, 2008)
- **Capacity to innovate (Innovation Value Chain)**
  - Contribution to the **Innovation Value Chain** – how do links and relationships in the network attribute value to the Innovation Value Chain (Dervitsioti, 2010; Hansen and Birkinshaw, 2007; O'Connor and DeMartino, 2006)
- **Knowledge and experience** gained - how do links and relationships in the network attribute to knowledge and experience gained through networked collaboration (Dervitsiotis, 2010)
- **Number of patents** generated - how do links and relationships in the network attribute to number of patents produced as a result of networked collaboration (Dervitsiotis, 2010; Adams *et al.*, 2006)

- **Revenue generated** from innovation activities - how do links and relationships in the network attribute to revenue generated from the collaborative innovation activities (Dervitsiotis, 2010)

#### **4. Methodology**

The research undertaken in constructing the integrated framework was desk based research on the existing body of academic literature (academic articles – primary sources) on topics of innovation management, networked innovation, innovation performance, knowledge management, corporate performance and similar related topics. The aim of the desk research was to understand the scope and findings of studies previously undertaken on innovation management, networked innovation and innovation performance - major factors influencing innovation in reference to innovation performance. Findings of the desk research were synthesized into the integrated framework presented in this paper. Online academic databases Athens, EBSCO and First Search were primarily used in the desk research, including some library research as well.

#### **5. Conclusion and Further Research Opportunities**

Importance of understanding and managing innovation in a highly dynamic environment of networked organizations whose property is described through the number of nodes, their density, strengths and relationships amongst the nodes is an important research topic that can significantly contribute to competitive advantage and corporate business strategy. Through the study of the existing academic literature it was identified that research in this area is relatively new and unexplored representing unique research opportunities.

Based on the proposed integrated framework, observing factors (links and relationships) influencing innovation performance in the setting of a networked (distributed) company, future research can perhaps be devised to construct a statistical prediction model on the corporate innovation performance (and hence its attribution to

the corporate economic performance) through researching the type and strength of links within the innovation network, understanding the position of the company within the network, understanding the density of the network in relationship to the innovation performance – namely novelty of innovation, number of patents and ultimately revenue generated from innovation related activities.

## References

1. Adams, R. *et al.* (2006) Innovation management measurement: A review. *International Journal of Management Reviews*, 8(1), p.21-47
2. Ailin, M. and Lindgren, P. (2008) Conceptualizing Strategic Innovation Leadership for Competitive Survival and Excellence. *Journal of Knowledge Globalization*, 1(2), p.87-107
3. Andersen, P. and Drejer, I. (2008) Systemic innovation in a distributed network: the case of Danish wind turbines, 1972-2007. *Strategic Organization*, 6(1), p.13-46
4. Cheese, P. (2008) Talent: a critical issue facing managers today. *Manager: British Journal of Administrative Management*, 62(1), p. 18-19
5. Dervitsiotis, N. K. (2010) Developing full-spectrum innovation capability for survival and success in the global economy. *Total Quality Management*, 21(2), p.159-170
6. Evangelista, R. and Vezzani, A. (2010) The Economic Impact of Technological and Organizational Innovations: A Firm-Level Analysis. *Research Policy*, 39(10), p.1253-1316
7. Fallah, M. and Lechler, T. (2008) Global innovation performance: Strategic challenges for multinational corporations. *Journal of Engineering & Technology Management*, 25(1), p.58-74
8. Flynn, S. (2008) Managing the Process of Innovation. *Research Starters Business*, 8(1), p.1-13

9. Fortuin, F. and Omta, S. (2007) Aligning R&D to Business — A Longitudinal Study of BU Customer Value in R&D. *International Journal of Innovation & Technology Management*, 4(4), p.393-413
10. Goswami, S. and Mathew, M. (2005) Definition of Innovation Revisited: An Empirical Study on Indian Information Technology Industry. *International Journal of Innovation Management*, 9(3), p.371-383
11. Goyal, S. and Pitt, M. (2007) Determining the role of innovation management in facilities management. *Facilities*, 25(10), p.48-60
12. Hansen, M. and Birkinshaw, J. (2007) The Innovation Value Chain. *Harvard Business Review*, 85(6), p.121-130
13. Harryson, S. (2008) Entrepreneurship through relationships – navigating from creativity to commercialisation. *R&D Management*, 38(3), p.290-310
14. Hidalgo, A. and Albors, J. (2008) Innovation management techniques and tools: a review from theory and practice. *R&D Management*, 38(2), p.113-127
15. Jon-Chao, H. *et al.* (2003) Chi and Organizational Creativity: A Case Study of Three Taiwanese Computer Firms. *Creativity & Innovation Management*, 12(4), p.202-210
16. Kianto, A. (2008) Development and validation of a survey instrument for measuring organisational renewal capability. *International Journal of Technology Management*, 42(1), p.69-88
17. Laukkanen, H. *et al.* (2008) Appropriability regime for radical and incremental innovations. *R&D Management*, 38(3), p.278-289
18. Leiponen, A. (2000) Competencies, Innovation and Profitability of Firms. *Economics of Innovation and New Technology*, 9(1), p.1-24
19. Letenyei, L. (2001) Rural innovation chains. *Review of Sociology*, 7(1), p.85-100

20. Manley, K. and McFallan, S. (2006) Exploring the drivers of firm-level innovation in the construction industry. *Construction Management & Economics*, 24(9), p.911-920
21. McDougall, P. and Oviatt, B. (1996) New Venture Internationalization, Strategic Change, and Performance: a Follow-up Study. *Journal of Business Venturing*, 11(1), p.23-42
22. Miller, D. (2009) High Performance in a Down Economy. *Chief Learning Officer - Human Capital Insights*, 9(2), p.2-3
23. Moore, J. (1993) Predators and prey: A new ecology of competition. *Harvard Business Review*, 71(3), p.75-86
24. Mrinalini, N. and Nath, P. (2008) Knowledge Management in Research and Technology Organizations in a Globalized Era. *Perspectives on Global Development & Technology*, 7(1), p.37-54
25. Muldowney, P. and Sievers, D. (2007) Finance's Key Role in New Product Development. *Financial Executive*, 23(8), p.42-47
26. Murray, F. and O'Mahony, S. (2007) Exploring the Foundations of Cumulative Innovation: Implications for Organization Science. *Organization Science*, 18(6), p.1006-1021
27. Narvekar, R. and Jain, K. (2006) A New Framework to Understand the Technological Innovation Process. *Journal of Intellectual Capital*, 7(2), p.174-186
28. Nylund, L. (2008) Market research becoming the answer for profits. *Caribbean Business*, 36(50), p.41
29. O'Connor, G. and DeMartino, R. (2006) Organizing for Radical Innovation: An Exploratory Study of the Structural Aspects of RI Management Systems in Large Established Firms. *Journal of Product Innovation Management*, 23(6), p.475-497
30. Oviatt, B. and McDougall, P. (2005) Defining International Entrepreneurship and Modeling the Speed of Internationalization. *Entrepreneurship: Theory & Practice*, 29(5), p.537-553
31. Ozgen, H. and Olcer, F. (2007) An Evaluative Study of Innovation Management Practices in Turkish Firms. *International Journal of*

- Business Research*, 7(2), p.53-63
32. Paladino, A. (2007) Investigating the Drivers of Innovation and New Product Success: A Comparison of Strategic Orientations. *Journal of Product Innovation Management*, 24(6), p.534-553
  33. Paulson, A. *et al.* (2007) Evaluating Radical Innovation Portfolios. *Research Technology Management*, 50(5), p.17-29
  34. Pisano, G. and Verganti, R. (2008) Which Kind of Collaboration Is Right for You?. *Harvard Business Review*, 86(12), p.78-86
  35. Quinn, J. B. (2000) Outsourcing innovation: the new engine of growth. *Sloan Management Review*, 41(4), p.13–28
  36. Radiou, N. (2005) Networked Innovation Drives Profits. *Industrial Management*, 47(1), p14-21
  37. Rivas, R. and Gobeli, D. (2005) Accelerating Innovation at Hewlett-Packard. *Research Technology Management*, 48(1), p.32-39
  38. Sarros, J. (2007) Building a Climate for Innovation through Transformational Leadership and Organizational Culture. *Journal of Leadership & Organizational Studies*, 15(2), p.145-158
  39. Scase, R. (2009) Herding cats: managing creativity. *Market Leader*, 44(1), p.58-61
  40. Selden, L. and MacMillan, I. (2006) Manage Customer-Centric Innovation –Systematically. *Harvard Business Review*, 84(4), p.108-116
  41. Shelton, K. (2009) Epic Leadership. *Leadership Excellence*, 26(4), p.2
  42. Shu-hsien, L. (2007) Knowledge sharing, absorptive capacity, and innovation capability: an empirical study of Taiwan's knowledge-intensive industries. *Journal of Information Science*, 33(3), p.340-359
  43. Sirkin, H. (2007) Innovation Process. *Industrial Engineer*, 39(7), p.17
  44. Soosay, C. and Hyland, P. (2008) Exploration and exploitation: the interplay between knowledge and continuous innovation. *International Journal of Technology Management*, 42(1), p.20-35
  45. Stalk, G. (2006) Hardball Innovation. *Research Technology Management*, 49(2), p.20-28
  46. Voelpel, S. *et al.* (2005) The innovation meme: Managing innovation replicators for organizational fitness. *Journal of Change Management*, 5(1), p.57-69

47. Voss, G. *et al.* (2006) Aligning Innovation with Market Characteristics in the Nonprofit Professional Theater Industry. *Journal of Marketing Research*, 43(2), p.296-302
48. Yadav, M. *et al.* (2007) Managing the Future: CEO Attention and Innovation Outcomes. *Journal of Marketing*, 71(4), p.84-101
49. Yu-Shan, S. *et al.* (2009) How do internal capabilities and external partnerships affect. *Asia Pacific Journal of Management*, 26(2), p.309-331

# Virtual Technology Team Management

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The development of all forms of entrepreneurship, as expressed in the context of globalization has brought radical changes in the modern business world, forcing business organizations into a continuing effort to increase their profitability and correspondingly improve those qualitative and quantitative criteria which will ensure for them a desired competitive advantage in the international markets where they are active. On the other hand, the evolution of the recent economic crisis applies considerable pressure globally over the business world in order to reach profitable solutions, while at the same time the use of available technology and Internet applications are of a major importance. Sustainability issues have become a necessity for the business world, dictating somehow their gradual independence related to working place and time. Achieving such a goal can be feasible through the development of small independent working groups, which could successfully promote innovation in a cost-reduction oriented way. A Virtual Organisation is a temporary or permanent network of independent and geographically dispersed organizations or working groups of individuals sharing partial or full common tasks and cooperation based on loose hierarchy but still quite strong operational relationships; linked together electronically so that they can commonly enhance the production process, by the means of sharing experience, incoming information; goods and services produced by a Virtual Organization are usually based on innovation issues and meet the individual requirements of both clients and projects alike. The Virtual Organization is practically

an expansion of the theory on the governance trends prevailing in the 90s, promoting the idea of the "learning organization» (Peter Senge).

The purpose of the particular research study refers to the investigation of the substantial needs of the business world, aiming at the development as well as promotion of the profile of virtual working groups in order to effectively implement short and long-term projects within the required time and space. It specifically refers to the knowledge-intense professional sector, which is characterized by the existing international development and operational standards within the realm of Management Consulting. The Knowledge management of virtual working teams is an issue highly projected recently at research level, placing increasing emphasis on the operation of such groups within the sense of entrepreneurial globalization.

Within the framework of the particular research study, an extensive questionnaire has been developed, which will be distributed to enterprises active in Management Consulting at international level; a sufficient number of responses is expected for collection and further processing with the view to extracting relevant conclusions, which will support the development of a virtual organization model, based on the principles of Dynamic Systems. The questionnaire is to identify those properties which should internally characterize a business organisation in order to promote itself into a safe transition to a virtual professional body. The yielded questionnaire responses are expected to support an important industry for the development of Europe (1% of GDP) and in particular those business sectors employing personnel of high academic qualifications.

**Keywords: Virtual, Knowledge Management, Management Consulting**

## **1. Introduction**

The subject of the above titled research study deals with the profound investigation of the real needs within the business world, aiming mainly at the development and promotion of virtual working groups concept in connection with the effective implementation of short and long term projects within the requested time and space.

The term Virtual refers to a specific domain, that of knowledge-intensive work production, which usually follows and is characterized by the standards of Management Consulting at the level of international operations and development.

The efficient management of the inherent knowledge within virtual working teams is an issue that recently has grown into a research topic, since the continuous development in technology has resulted into the evolution of methods and functions, giving an even more important meaning to the development of such groups into modern globalized businesses.

### ***1.1 Core Research Study Queries***

Upon completion, the survey is expected to provide plausible answers in a multi-level set of questions with the view to providing realistic proposals to interested parts of the modern business world.

The questions upon which, the field study has been developed, refer to the following:

- Which is the prevailing state-of-the-art international practice in virtual working,
- What the recent trends and developments in the Management of Virtual Team Work are within the service sector environment,
- What progress there has been so far in the field of Knowledge Management industry,
- What main technological tools exist in the industry/region,
- What characteristics of management, organisational behaviour and culture seriously influence the development and further operation of the virtual teams,
- What peculiarities better depict the Management of Virtual Working Teams in the service industry over individual areas of expertise,
- In what ways business Risk Management could be minimized within the Virtual Organization environment,
- What organisational behaviours or practices of different origins within the virtual working groups environment have been developed,

- What differences and similarities characterize the international practices surveyed,
- What conclusions and proposals could be drawn of use to the business world, nowadays, including among others:
  - a)** companies operating in the region,
  - b)** educational/academic institutions at an international level,
  - c)** international organizations and governments that finance growth in the region.

As far as the depth of the research within the particular domain is concerned, there is, unfortunately, little or next to no results over particular geographical areas, according to the FEACO<sup>1</sup> surveys, with the most recent one conducted over the past two successive years 2007 and 2008.

The development of all forms of entrepreneurship, as expressed in the context of globalization has brought radical changes in the modern business world, forcing business organizations into an ever-lasting effort to increase their profitability and correspondingly improve those qualitative and quantitative criteria, which will ensure for them a desired competitive advantage at the level of international markets where they are active.

On the other hand, the evolution of the recent economic crisis applies considerable pressure globally over the business world in order to reach profitable solutions, while at the same time the use of available technology and Internet applications are of a major importance. Moreover, sustainability issues have become a necessity for the business world, dictating somehow their gradual independence related to working place and time.

Nowadays, the continuous search for competitive advantages is not simply a must, but a realistic need for business sustainability, thus indicating the growing trend for gradual detachment from both working place and time or even physical appearance.

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<sup>1</sup> Fédération Européenne des Associations de Conseils en Organisation/European Federation of Management Consultancies Associations

Achieving such a goal can be feasible through the development of small independent working groups, which could successfully promote innovation in a cost-reduction oriented way.

## 2. The Virtual Organization

A **Virtual Organisation** is a temporary or permanent network of independent and geographically dispersed organizations or working groups consisting of individuals sharing partial or full common tasks and cooperation based on loose hierarchy but still quite strong operational relationships, linked electronically together so that they can commonly enhance the production process, by the means of sharing experience, incoming information.

All goods and services produced and rendered by a Virtual Organization are usually based on innovation issues and meet the individual requirements of both clients and projects alike.

The Virtual Organization is practically an expansion of the theory on the governance trends prevailing in the 90s, promoting Peter Senge's<sup>1</sup> idea of the Learning Organization.

The term itself usually means being virtual or invisible and refers to a temporary or permanent cooperation among geographically dispersed people, working teams and organizational units - which can belong or not to the same agency - or whole bodies which are linked together electronically in order to bear the jointly capacity and property of meeting a production process, sharing their experiences, incoming information, products as well as services.

The Virtual Organisation aims primarily at and focuses on the following:

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<sup>1</sup> Senge, Peter Michael (1947), American scientist and director of the Centre for Organizational Learning at the [MIT Sloan School of Management](#)

- the emergence of a business entity with which the customer has the ability to transact and connect more flexibly, quickly and efficiently, regardless of physical location of the headquarters,
- Sharing operational costs, making wise use of the available skills and knowledge that can be produced at lower costs in different geographic areas,
- Considerable decrease in knowledge investment, research and development projects, by the means of deploying to the full the existing resources in different regions,
- concentration of inherent skills for effective customer service,
- Simultaneous access to many niche markets.

Some of the elements that characterize such an organization are the following:

- i) Lack of physical structure,
- ii) Confidence in knowledge,
- iii) Use of communication technologies,
- iv) Flexible space to pursue the professional activity which has been favoured by the expansion of even more opportunities for working mobility supported by the use of new technologies,
- v) Uniqueness and multinationality

The virtual organization comprises a new organizational model of particular importance to those companies that build their strategic development on the use of knowledge rather than material goods, emphasizing the ability of businesses to conserve natural capital (e.g. several square meters for housing, etc.) respectively, while enjoying the benefits arising from participation in a reliable communication networks.

At this point it would sound reasonable to ask oneself why, although a virtual organization is one of the most dynamic organizational types, few companies have already adopted the model.

Perhaps among the reasons that negatively impact the adoption of such a working model, the following issues could be addressed as well:

- elements of business culture,
- traditional organizational models/standards,

- inadequate training of the available human resources,
- resistance to the upcoming organizational changes,
- business introversion ,
- ignorance in the management and provision of operational risks addressed to certain businesses, etc

The virtual organization model has recently become more acceptable, acknowledged and even well-come and adopted by some companies as a unique solution to crisis demands, for two (2) reasons:

- 1) It offers opportunities for decentralization and efficiency increase, while it can reduce the operational costs of a business entity and,
- 2) Secondly, because of the strong dependence on the technology of IT systems, Virtual Organizations are characterized by inherent advantages of knowledge management issues.

In post-industrial economy, whatsoever, knowledge is considered to be not only a powerful business capital but a significant diversification advantage. The capacity of a business entity for continuous learning can actually contribute to the business itself as “the only sustainable competitive advantage”, as De Geus<sup>1</sup> has strongly supported in his lectures.

The advantages that yield out of a well structured organisation into virtual working teams may be summarized as follows:

- increase of corporate productivity
- decrease of direct and indirect costs of the working personnel,
- decrease of capital costs,
- improvement of customer satisfaction due to the final production and provision of better quality products and services,
- attraction of highly talented collaborators from different locations,
- increase of the availability of technical facilities and offices,
- decrease of the completion of the cycle - time and project delivery,
- increase of the reliability in the delivery of products or services,

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<sup>1</sup> Arie de Geus ([Rotterdam](#), 1930), former manager of Royal Dutch [Shell Oil Company](#)'s Strategic Planning Group, public speaker.

- decrease of the cycle time for the development of new products,
- enhancement of greater capacity to help workers concentrate on their work and at the same time increase their loyalty and job satisfaction, within the scope of their work,
- better quality work enhancement,
- autonomy development and absenteeism and cost decrease,
- development of the employment schemes for people with disabilities.

### 3. Main Virtual Organization Categories

According to studies conducted by Nick Lethbridge<sup>1</sup>, virtual organization models can fall into the i-Based classification, which necessarily determines the categories according to the flow of information between the association of member organizations to determine.

Three broad categories of information flow can be distinguished:

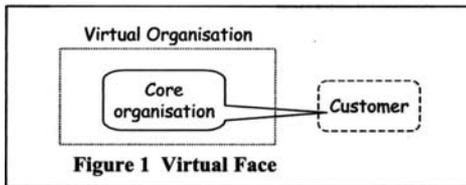
1. Planning: the information is used in order to determine the distribution objectives for a well-organized structure, scope and activity orientation of the entire operation of the Virtual Organisation.
2. Operational: the information used for the daily activity of each member-organization.
3. Coordinating: the flow of information mainly ensures the effectiveness of all operational activities and supports the distribution of goals set by the Virtual Organization

This flow of information based on the business mission each flow supports. The i-based classification mentioned above defines the basic but substantial structures for a Virtual Organisation, thus forming the following Virtual Organisation models:

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<sup>1</sup> Professor at the School of Management Information Systems, Edith Cowan University, Australia

- **Virtual Face:** the form corresponds to the integration of a non-virtual organization into cyberspace. Internet, for example, is used to provide services equivalent to or additional to those offered in a physical workplace. The Virtual Face displays all or a portion of the physical body.

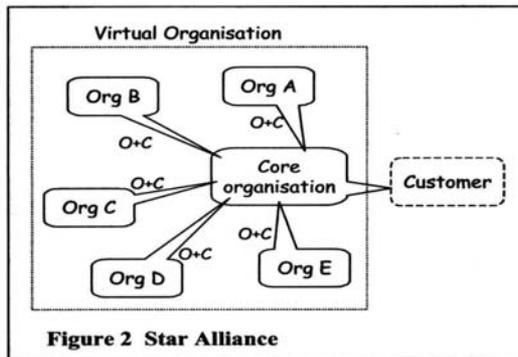


This model is the simplest structure of a Virtual Organisation. It represents the basic B2C (business-to-customer) e-commerce or online business. The typical Physical Presence organization offers an online workplace for its customers. It is important to mention that even though it comprises a simple structure, it experiences its own management effects, namely referring to the following:

- The e-business unit can be separated from the naturally operating unit. In this case, a new structure is selected for the Virtual Organisation.
- Only the core member of the Virtual Organisation is irreplaceable. It is entirely responsible for the planning, operation, coordination and contacts with the organisation's customers.
- Being a single member there is no information flow among other members. There is an exchange, though, of operational information exchange with the customer, for example, processing orders and delivery notes. However, this does not apply to a Virtual Organisation category classification.

If, for example, a university would like to offer online courses through the Internet, the particular institute could make use of a virtual presence type of Virtual Organisation structure, treating students as customers. The whole approach of the students at registration, lecture and seminar attendance, assignment submission and result reporting would be on-line. The students themselves would not need to visit a real campus within the concept and nature of a physical entity.

- **Star Alliance:** it refers to a grouping of independent bodies, with a main body to be in charge of the administration of the whole entity. The core organisation may have been favoured with the key-knowledge as well as various other resources, approaching its customers as the virtual personnel within a virtual organization.



A company which may have transferred some of its operations elsewhere can actually serve as Star Alliance. The Star Alliance structure can also be used to coordinate projects with the core organisation to be in charge of relationships development with customers and at the same time the overall coordination of the project. The Star Alliance can be developed for the needs of a single project and then upon completion to bring itself back to its initial condition. In addition, the core organisation can develop several Star Alliances with various members-organisms, retaining the ability to use the same supportive administrative structure for any future separate alliance.

In the case of the Star Alliance type of Virtual Organisation, the following characteristics are discernable:

- The core organisation plays an essential role and it cannot be replaced. However, other Satellite-like Virtual Organizations would have logically chosen to perform a specific operation within the Virtual Organisation. Each satellite can be replaced by a new one which could competently perform the same operation.

- Planning has been performed by the core organisation, whenever the demand arises, while the satellite members are required to build their own internal plans, so that they match the overall performance of the core Virtual Organisation.
- All contact activities with customers is enhanced through the core organisation.
- Only the operational and coordinating flow of information is enhanced among the existing members; there is no flow of software information. The core organisation guides the members through the flow of operational information and ensures that the main purpose of the Virtual Organisation has been satisfied.
- The managing authority should apply to each member individually, while the core organisation may dictate a good number of the prevailing rules within the environmental of the coordinating Virtual Organisation.

In case a Virtual University were released from the creation of on-line lectures, once a contract was signed with a webmaster, the institute could readily allow them to be hosted in an external Internet Service Provider. The Web site is named after the institute while the registered students communicate only via the controlled by university Web site. In this case, the University is the core organisation of a Star Alliance type of Virtual Organisation. Both teachers and ISP<sup>1</sup> are satellite members-organisations.

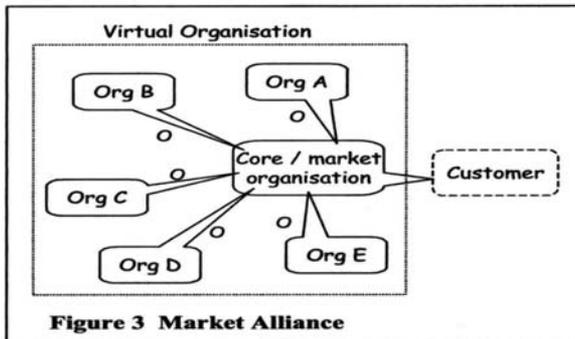
- **Market Alliance:** the core organisation is in charge of managing all contacts related to sales on behalf of all other member-organizations. In contrast to the Star Alliance type of VO<sup>2</sup>, bearing the entire responsibility for the administration of the VO, the core organisation of the Market Alliance is responsible only for the sales and marketing operations.

The market may have been created for its own purposes. The sales people offer goods for sale and pay a fee for the use of the market. Another case could be a group of manufacturers who create their own market, enrolling members, paying a fixed subscription fee and a commission on the sales ratio.

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<sup>1</sup> Internet Service Provider

<sup>2</sup> Virtual Organisation



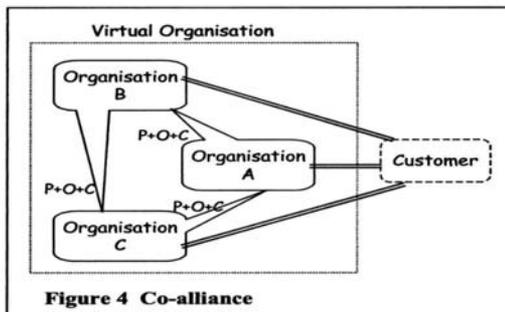
**Figure 3 Market Alliance**

The main features of this type of VO are the following:

- There is a core organisation, but it does not administer the Virtual partnership. The market develops itself committed to specific administration rules. A satellite organisation bears the capacity to opt whether to join the Virtual cooperation and accept all rules, or not to join it at all.
- The core organisation is essential for the Virtual cooperation. All other members are replaceable. All satellite shall have a similar feature to produce goods or services for sale. So there is a core and a good number of satellites organisations.
- All planning related to the Virtual Organisation has been established even well before it was set up. It may, however, become the core body, or from all satellite organizations that have decided to create the centre of the dispersed market. In any case no planning or coordination is included in the structure of the VO.
- The only flow of information among the members of the Market Alliance is functional, which practically means that the reference is made to identify the variety of goods or services on demand as well as what is finally sold. In case a mistake has been made to the original plans, there is no correction approach available within the Virtual Organisation.

If, for example, the core organisation changes the way it operates, the satellite organizations have little or no choice at all left with, except for either accepting the changes or leaving the alliance.

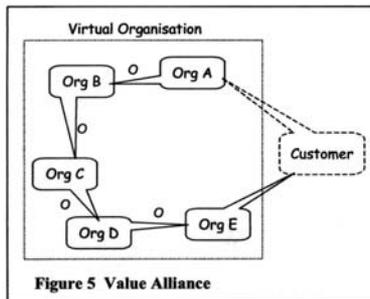
- All contacts with clients are enhanced by the means of the core organisation as the primary and principal purpose of the Market Alliance type of VO
  - The administration of the VO should apply to each member of the alliance. If a satellite member is not satisfied, they can make use of different sales market outside the alliance. It may be that certain members could promote their own goods and services through various other virtual organizations characterized also as Market Alliance members.
- **Co-Alliance** addresses to a group of independent organisations, each with equal commitment to the alliance. The alliance may exist permanently or respond to membership changes in order to meet the individual project needs.



The Co-Alliance formation bears the following main characteristics:

- Absence of a core organisation or strong leadership,
- Participation of each individual member by the means of a specific function within the VO,
- All members are involved in planning and they all bear the same degree of responsibility for a project coordination,
- Difficulty in replacing members, particularly within the life of a single project,

- There is information flow among all members,
  - Strong degree of member independence while it is possible for members to change between projects.
- **Value Alliance:** each member-organization adds value to the work of the previous organization's chain or supply value



A Value Alliance member is based on the operations of the value or supply chain. Each member of the organization adds value to the work of the previous chain organization. The client addresses a request to the member - organisation at the top of the value chain while the product is delivered by the member - organisation at the end of chain.

Each member - organisation receives a work in progress, which may be an unfinished product or service. The contribution of each member is to add some value to promote the product closer to its completion and then to transfer the work in progress to the next member in the chain.

The characteristics of a VO, which falls under the category Alliance Value include among others:

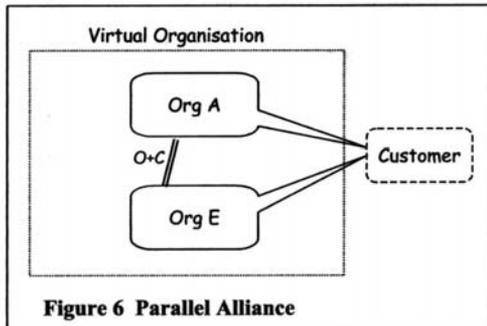
- Absence of a core organization,

- The Virtual members are replaceable, only, however, by an organization that bears the capacity to add exactly the same value throughout the goods or service produced by the alliance
- The only flow of information is the operational, which is the work in progress, actually passed over to the next member-organisation in the chain. Once part of the work in progress reaches the member, they will add their own value enhancing to the predefined targets and consequently passing the commitment to the next member in the value chain.
- Once a Virtual Organisation featured as a Value Alliance member is created, there is no integrated planning and coordination; it is assumed that all processes will function properly coordinated. However, if any problems arise, it is then very difficult to proceed to any amendments.
- The customer contact is limited to the first and the last members in the Value Chain alliance. There is the probability, both the first and the last members to be the same; this is the case when the Value Chain follows circular procedures. The client, however, addressing the order could not necessarily be the same as the final recipient of the goods or services produced by the alliance. For example, a customer can order flowers to be delivered to another person.
- There is no centralized management applied by a single virtual organization within the Value Chain Alliance. Each member must be able to accept work in progress and pass value-added work over to another member within the Virtual Alliance

The main aim of the development and promotion of this modern type of organisation can be briefly depicted below:

- ✓ delegation of well defined commitments applied by the managing personnel, workers and resources alike,
  - ✓ orientation of both the managers' commitments as well as policy and decision makers to the needs of enhancing economy features in favour of the VO.
  - ✓ shifting the core activities from the traditional consumerism to marketing relationships and Customer Relationship Management.
- **Parallel Alliance:** The Parallel Alliance represents a chain or supply value, where an added value organisation needs to be active close to another. The member-organisations within the Parallel Alliance environment are

responsible for objectives mutually dependent. This requires strong and effective coordination among all member-organizations.



The above Virtual Organization structure addresses to re-engineering issues and follows one of the principles developed and supported by Hammer<sup>1</sup>: parallel activities linked together instead of a gradual mixture of their produced.

Within the VO environment, parallel organizations are independent of one another, without affecting one another's operations; they only have to be connected right at the end of their activity.

The features of this type of VO are as follows:

- There is no core organisation,
- Member organisations of the VO formation may be replaceable, only, however, by an organization that is able to add exactly the same value throughout the goods or services produced,
- There is information exchange concerning both the organisation's operation as well as the entire coordination. Coordination comprises a very important issue

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<sup>1</sup> Hammer, [Michael](#), a former professor of computer science at the [Massachusetts Institute of Technology](#) (MIT)

in this type of VO, which negatively affects the replacement procedure within the Parallel Alliance, rather than the Value Alliance scheme.

- Once the Parallel Alliance type of Virtual Organization has been created there is no embedded programming. If any problems arise, then the flow of information related to Coordination allow for corrections to be made, but only within limits set in the initial planning.
- The customer contact is made by both or all members of the Virtual Organization while information on each member's role and contribution has been acknowledged and exchanged.

In the case of a Parallel Alliance, a student may be communicating with several teachers in a virtual university. On the other hand, each tutor has been assigned with the task to act as a member organisation within the Virtual Organization, delivering a good number of courses independently of one another. The timing and the proportion of the entire set of courses delivered should be coordinated by a regular exchange of information related to strong coordination issues, among all participating members.

#### **4. Developed Theories**

The business survey, implemented within the research problem context, follows the specifications of business research at the level of its external environment, seeking ways to link the particular study with the more general concerns of the cognitive field, which it falls in.

One major region, which has been characterized as bearing highly complex socio-economic, cultural and business traces in progress and rapid development, is the South-Eastern Europe, which has a strong interest in both the EU and Greece, as far as entrepreneurial development is concerned. This is the geographical range to which the survey will be conducted. The particularity of the region is characterized by very similar and yet different cultural elements, the main difference being both in the written and spoken language as well as significant differences in the business philosophy and workforce culture, due to completely different starting points of the existing social-economic systems per area.

The conduct of the study is supported by the following theories:

- Theory of the Growth of the Firm, and
- The Agile Manufacturing

#### ***4.1 Theory of the Growth of the Firm***

According to the theory of the Growth of the Firm by E. Penrose (1959), the development of a company should be deriving from its internal structure and not by mergers or acquisition. A good number of businesses usually fail in their development project due to anti-operational guidelines, poor management skills, inefficient in their ability to increase their financial resources, low capacity criticism leading to costly mistakes, including poor adaptability or even change management issues.

According to the theory of business development, since the concept of virtual business refers to the structure of a very complex organization with serious extensions into a variety of financial and social activities within the region where it grows or it is involved in diverse and contradictory situations but at the same time it is also influenced by unpredictable human behaviours, there should be an analysis of the organisational structure in sociological, organizational, technological and economic terms.

Moreover, the view that the limited degree of effectiveness in individuals negatively affects the development of a business, there is a strong belief that corporate unity can be greatly achieved by applying the appropriate organizational model unanimously supported by the majority if not the whole of the personnel who share common traditions, common familiarity with the business operations, giving this way, the characteristics to the business itself of an entity sufficiently consistent and widely efficient.

#### ***4.2. The Agile Manufacturing***

The term Agile Manufacturing or Flexible Production refers to any business strategy aimed at enhancing business competitiveness. The basic theory of flexible production process is based on the one hand on the evolution of E. Penrose's theory, but also that of Lean Manufacturing/Production Process aimed primarily at

reducing costs, the main point of contrast between the two theories– focusing on the corporate ability to operate and compete the market through a dynamic and almost continuously unpredictable change (Sarkis, 2001)<sup>1</sup>.

On the other hand, it comprises a successive and progressive form of the Drucker<sup>2</sup> theory, according to which, the expression of Entrepreneurship is the constant quest for change, as a form of responding to it and exploiting it as an opportunity.

The implementation of theory into practice requires:

- synergy development between customers and competitors,
- alertness for change management or even control of the uncertain and the complex issues to arise,
- human resource as well as information deployment

The theory of Agile manufacturing introduces innovative approaches in order to address the recent and growing entrepreneurial challenges:

- Production of high quality goods and services,
- Low cost production,
- Products & services that meet the ever growing and diversified customer needs.

Amidst the research survey and for reasons of better understanding the underlying problem, there was developed a preliminary draft questionnaire distributed to 80 members from 15 companies of which 60% said they only participate in working groups interacting face to face daily, while the remaining 40% said they participate in groups whose main characteristic is that of the virtual interaction.

Giving some general characteristics of the sample there should be mentioned that most virtual teams have been identified in the service sector and operate almost over a year. The virtual members who comprise the majority groups are more

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<sup>1</sup> Sarkis, J. (1963), Leading Management Guru, Professor of Operations Management, Graduate School of Management, Clark University

<sup>2</sup> Drucker, Peter Ferdinand (1909) was a writer, management consultant, and self-described “social ecologist”

than eight (8) and they are mainly characterized by the high level of knowledge they have acquired. Out of the participants, 56% belong to the age group of 30-40 years, while 60% of the sample consists of men.

That first questionnaire consisted of three sections:

- i. The first section yielded evidence on how virtual teams are usually planned for further development and a brief description of their processes,
- ii. The second part gave information on the data systems used by certain companies in order to support their virtual teams,
- iii. The third section, gave evidence related to the members of groups, their performance and their level of satisfaction.

The responses yielded the following conclusions:

- only 48% admitted a careful look at the objectives set during the planning stage,
- nearly 50% of the members participated in the initial formation of their group,
- nearly 60% stated receiving information on their actual role within their group,
- 41% stated initial discussion in relation to improvement issues,
- there is moderate confidence, cooperation and understanding among the team members,
- 52% have not received adequate training by the company,
- almost 36% have received special training seminars to enhance effective communication between local members,
- 48% were satisfied with the training provided by their company,
- the majority (approximately 72%) of the participants appeared to be positive indicating that their leader has created a vision for the team, promoting often enough new ideas to optimize the work of the team members, being at the same time friendly and encouraging towards them,
- the same proportion (72%) seemed to be satisfied with the tools provided by the company as well as with the permission of initiatives to develop within their group; they agreed that dissemination activities is a usual practice among the members of the group, but disagreed as far as the same reward to all members is concerned, especially after a particular target achievement by the team,
- the tools and approaches mostly preferred for communication purposes by the members of virtual teams relate to e-mail, to face communication, voice messages, fax transmissions, the use of private transportation services and less or no use of video conferences.

Within the framework of the particular research study, a second and more extensive questionnaire has been developed, which has taken into consideration certain critical factors important for the successful and effective operation of virtual teams, such as:

- ✓ efficient communication,
- ✓ diversified civilization and culture,
- ✓ technology,
- ✓ mutual trust among team members,
- ✓ learning capacity of the organisation,
- ✓ individual satisfaction and reward.

The second and most recent questionnaire has already been distributed to enterprises active in Management Consulting at international level; a sufficient number of responses – distributed to almost thirty (30) companies - is expected for collection and further processing with the view to extracting relevant conclusions, which will support the development of a virtual organization model, based on the principles of Dynamic Systems.

The questionnaire is to identify those properties which should internally characterize a business organisation in order to promote itself into a safe transition to a virtual professional body.

The yielded questionnaire responses are expected to support an important industry sector for the development of Europe (1% of GDP<sup>1</sup>) and in particular those business sectors employing personnel of high academic qualifications and expertise.

The core of the questionnaire addresses to issues such as:

- Globalisation,
- Communication,
- Data Information provision,
- Use of Technology,
- Team-work spirit,
- Organisational Behaviour,
- Business Management,
- Transnationality,

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<sup>1</sup> Gross Domestic Product

- Basic principles & Properties of Virtual Working Teams,
- Evaluation of the organizational approach deployed for virtual teams strategic development
- Convergence of Technical and Qualitative Goals,
- Strategic Development &
- Corporate Culture and Philosophy.

The participating samples within the framework of the survey will comprise line managers and executives, while the age target group ranges between twenty (20) and fifty plus (50+) years.

The expected number of contacted and participating companies by the means of yielding successfully filled questionnaires will reach 30 internationally acknowledged brands.

## References:

1. Banks, Stephen P. (1995) *Multicultural Public Relations, A Social – Interpretive Approach*, USA, Sage Publications
2. Chorafas, Dimitris N. and Steinmann, Heinrich (1995) *Virtual Reality: Practical Applications in Business and Industry*. Upper Saddle River, New Jersey, Prentice Hall PTR
3. Christopher, M. and Towill, D. (2001) An Integrated Model of the Design of Agile Supply Chains. *Journal of Distribution and Logistic Management*, 31 (4), 235-246
4. Davis, Donald D.(2004) The TAO of Leadership in Virtual Teams. *Organisational Dynamics*, 33 (1), 47-62
5. De Geus, A. P. (1988) Planning as learning, *Harvard Business Review*, 66 (2), 71
6. FEACO (2008) *Survey of the European Management Consultancy Market 2007/2008 (2008)*. Belgium, FEACO

7. Gibson, Cristina and Cohen, Susan K. (2003) *Virtual Teams that Work: Creating Conditions for Virtual Team Effectiveness*. 1<sup>st</sup> edition. San Francisco, Wiley
8. Goldman, S.L. and Nagel, R.N. (1993) Management, Technology and Agility: The Emergence of a New Era in Manufacturing, *International Journal of Technology Management*, 8 (1-2), 18-38
9. Hammer, M (1990) Reengineering Work: Don't Automate, Obliterate, [\*Harvard Business Review\*](#), 7, 104–112.
10. Hammer, M. and Stanton, S. (1995) *The Reengineering Revolution*. London, Harper Collins
11. Lethbridge, Nick (2001) An I-Based Taxonomy of Virtual Organisations and the Implications for Effective Management, *Informing Science*, 4 (1), 17-23
12. Lipnack, Jessica and Stamps, Jeffrey, (2000) *Virtual Teams: People Working Across Boundaries with Technology*. 2<sup>nd</sup> edition. New York, John Wiley and Sons
13. Pauleen, David J. and Yoong, Park (2001) Relationship Building and the Use of ICT in Boundary – Crossing Virtual Teams: A Facilitator's Perspective, *Journal of Information Technology*, 16, 205-220
14. Penrose, E. (1959) *The Theory of the Growth of the Firm*. New York, John Wiley and Sons
15. Sarkis, Joseph (2001) Benchmarking for Quality Management & Technology. *An International Journal*, 8(2), 88 - 107.

# Social Media Engagement of Retail Banking Organizations in SEE: Analysis of Online Presence and Web 2.0 Initiatives

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**Purpose:** Web 2.0 era of online communications is in its prime, and rapidly establishes novel standards in online interactions. The adoption of Web 2.0 tools and engagement in social media channels developed at phenomenal speed for users, giving rise on its way to the so-called “confessional society” that transformed online them from audience into active content creators, opinion leaders and trend setters (Beer, 2008).

It is argued that by giving visitors user-friendly tools for content development, posting, sharing and networking, Web 2.0 opened new venue for the voice of consumer to be raised and be heard. Marketers argue that social media opened the gates to phenomenally rich consumer data and powerful intelligence that can be used for segmentation, targeting and perhaps more personal approach to marketing (Casteleyn *et al*, 2009; Comley, 2008; Hardey, 2008; Pannunzio, 2008).

While use of Web 2.0 tools and channels in marketing quickly evolved from a revolutionary idea into a norm, questions emerge to what would be the next level of corporate engagement in the online setting. Marketers theorize on the potential to use social media for supporting and developing bonds with customers by leveraging the power of Web 2.0 in networking and interactive exchanges. The premise is that while past forms of online presence proved to be ineffective in supporting true and meaningful relationships between consumers and companies due to robustness of Web 1.0, the socially-enticing characteristics of Web 2.0 would be more suitable for establishing rapport with consumers in the virtual setting (N'Goala, 2010, Pannunzio, 2008, Stone, 2009).

However, the potential for using Web 2.0 in the domain of relationship marketing (RM) is still to be explored (Stone, 2009). The question rests on how this assumption will manifest in the corporate reality. Companies and brands in fast moving consumer goods and entertainment already pioneered creative social-media campaigns that not only promote products/offers, but also actively engage users in content creation and dissemination of marketing messages (Constantinides and Fountain, 2008; Cooke, 2008; Kozinets, 2009). However, evidence of enhancement of customer relationships through social media engagement is still tentative.

The question becomes even more complex for organizations offering highly intangible services, such as retail banking institutions, who struggle to incorporate RM approach in highly fragmented retail markets (Gummeson, 2002; Kapoulas *et al*, 2002; Proenca *et al*, 2010)..How can Web 2.0 tools and social media channels be used in this instance to support and develop relations between clients and their financial service providers? And more importantly, is there a scope for Web 2.0-based relationships in retail banking?

The purpose of this research is to explore these questions and offer insights on the scope for using Web 2.0 communications to support RM approaches in retail banking. Research focuses on the particularities of retail banking in the South East European

(SEE) region, as area overlooked by past RM studies. Research recognizes that the reality shaping this issue is multifaceted and is constructed in: (1) practices of retail banks in terms of RM approach implementation and online marketing strategies, (2) perspectives of consumers on the appeal of Web 2.0-based interactions with their financial service providers, and (3) dialogue in the social media channels addressing issues of customer relationships in retail banking. At the current stage, there is a lack of comprehensive knowledge on the scope of online presence and marketing of retail banking organizations in the SEE to begin with. The purpose of this paper, therefore, is to explore forms of online presence and online marketing of retail banks in SEE countries and to investigate possible forms of Web 2.0 and social media presence by retail banks in the region.

**Research Methodology/Approach:** Research is conducted by performing content analysis of online forms of presence of retail banks operating in SEE countries. Content analysis includes qualitative assessment of the online content in official websites and social media pages by retail banking organizations. It accounts for the breadth of content (volume, variety, frequency of update etc), thematic analysis of content (e.g. online promotional marketing material, content addressing customer management issues etc), and the extent of interactive communication offered to audiences online. In the latter case, analysis concerns channels/options provided to visitors/customers to engage in interactive discussion with the bank (other than e-banking facilities) and to provide their feedback on banking services and products/offers. It also examines the nature of communication taking place on banks' social media sites (in corporate blogs, pages in online social networks, micro-blogs etc) in terms of real-time interaction with online visitors/customers and the depth and scope of exchanges taking place (e.g. whether visitors/customer can leave comments on banks' blogs/social networking sites, whether the comments are filtered by content, whether the bank offers interactive responses to these comments, whether active online visitors/contributors are acknowledged/rewarded by the bank in any form etc.).

**Findings:** Research is currently in the process of conduct and findings are in the process of generation. Preliminary findings suggest very diverse approaches to online presence and marketing by banks in SEE, ranging from Web 1.0-style robust corporate websites to interactive Facebook pages that educate customers about credit scores and financial products through entertaining content. Variety of online presence approaches is accounted on case-to-case basis, and patterns in the forms of online engagement are emerging.

**Originality/contribution:** Paper aims to provide original insights illustrating the breadth and scope of online presence of retail banks in the SEE region, in terms of interactivity of content and communications with visitors/customers. It also aims to identify forms of social media engagement retail banks in SEE. These insights will provide first detailed account on how online presence is used by retail banks in SEE to communicate with exiting and potential clients and to promote financial products/offers. The contribution of this paper will be detailed overview on the forms of online engagement by retail banks in SEE (other than e-banking), which will offer insights on the scope of interaction taking place on the Internet between banks in SEE and their visitors/clients (other than online transactions). Emerging patters will help understand how various retail banks in SEE countries use online communications and how are these forms of online presence reflective of their marketing approaches and strategies.

**Limitations:** The analysis of online presence is conducted on case-to-case basis (each case illustrating practices of a single bank in various SEE countries), and thus does not account for generalizations to the overall level and scope of online/Web 2.0 presence of the whole retail banking sector in the SEE region. The aim is rather to understand how differentiation in the market is achieved through online presence by various banks, and how could this be linked to innovative online marketing approaches and customer management in retail banking.

**Keywords: Web 2.0, social media, relationship marketing, retail banking, SEE region**

**References:**

1. Beer, D (2008) Researching a Confessional Society. *International Journal of Market Research*, 50 (5), p. 619 – 629.
2. Casteleyn, J., Mottart, A., and Rutten, K. (2009) How to Use Facebook in Your Market Research. *International Journal of Market Research*, 51 (4), p. 439-447.
3. Comley, P. (2008) Online Research Communities: A User Guide. *International Journal of Market Research*, 50 (5), p. 679-694.
4. Constantinides, E. and Fountain, S.J. (2008) Web 2.0: Conceptual Foundations and Marketing Issues. *Journal of Direct, Data and Digital Marketing Practice*, 9 (3), p. 231-244.
5. Cooke, M. (2008) The New World of Web 2.0 Research. *International Journal of Market Research*, 50 (5), p. 569-572.
6. Gummesson, E. (2002) *Total Relationship Marketing*. Butterworth-Heinemann.
7. Hardey, M (2009) The Social Context of Online Market Research: An Introduction to the Sociability of Social Media. *International Journal of Market Research*, 51 (4), p. 562-564
8. Kapoulas, A, Murphy, W, and Ellis, N (2002) Say Hello, Wave Goodbye: Missed Opportunities for Electronic Relationship Marketing with the Financial Services Sector. *International Journal of Bank Marketing*, 20 (7), p. 302-313
9. Kozinets, R. (2009) *Netnography: Doing Ethnographic Research Online*. Thousand Oaks, Sage Publications Ltd.
10. N'Goala , G. (2010) Discovering the Dark Side of Service Relationships or Why Long-Lasting and Exclusive Relationships Are Self-Destructing. *Recherche et Applications en Marketing*, 25 (1), p. 3-30.
11. Pannunzio, C (2008) Leverage the Power of Social Media. *Journal of Financial Planning*, 8 (6), p. 6-8

12. Proenca, J., Silva, M.M. and Fernandes, T. (2010) The Impact of the Internet upon Bank Marketing. *Journal of Financial Services Marketing*, 15 (2), p. 160-175.
13. Stone, M. (2009) Staying Customer-focused and Trusted: Web 2.0 and Customer 2.0 in Financial Services. *Journal of Database Marketing & Customer Strategy Management*, 16 (2), p. 101-131.

# Hedge funds – a myth about power of diversification

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Last two decades are characterized by large amounts of debt of institutional investors, globalization, financial crisis and consequently, with considerable volatility of investment returns which all have led to the need of redirecting huge amounts of funds into alternative and less known parts of the financial markets. These events resulted in huge rise in asset under management of alternative industry, especially of hedge funds. Main reason behind this rise was supposed to be the lack of correlation between traditional investments, i.e. stocks and bonds, with alternative investments whose main part are hedge funds and private equity funds. This lack of correlation should result in smaller amount of risk for same return and vice verse, in accordance with portfolio theory

The aim of this paper is to show that hedge funds can provide better returns compared to traditional investments and that they can reduce risk during stable conditions in financial markets, but during financial turmoil, they behave mostly like all other investment alternatives, e.g. their correlation coefficient with traditional investments rises almost to 1.

**Keywords: Hedge funds, correlation, diversification, investment**

## 1. Introduction

Hedge funds (HF) represent a specific investment style. Jaeger (2003) defines HF as “actively managed investment fund that seeks absolute return. (p.x) That means, their managers try to achieve positive return regardless of benchmark results. Some refer to HF as alternative investments. In order to make clear understanding, alternative investments are traded in less liquid markets, and their returns don’t rely on market generated returns, but rather on their managers’ ability.

Beside aforementioned, there are some other characteristics that distinguish HF from their predecessors – mutual funds. Frush (2008) states differences in terms of liquidity (limited liquidity of HF), investors (accredited investors), primary source of risk and return (managers skills and abilities), minimum investment (usually \$1 million or more), short sale (unlimited), performance fee (usually 20% of net profit), leverage (great freedom), offering (private placement), leverage (unlimited), managers’ share in funds capital (significant) and use of derivatives (unlimited).

This paper is divided in three parts. In first part, reasons are given for a big rise in popularity and asset under management of HF in last two decades. Second part explores HF industry results and its diversification potential through investigating correlation coefficient between HF and traditional investment, measured by S&P 500 index. In third part, it is explained how HF industry must not be seen as a unique category i.e. how different HF styles can produce different risk-return and correlation coefficients results.

## 2. Growth of the HF Industry

Although HF deserved most of its public attention in last two decades,<sup>1</sup> their very beginnings are attributed to a journalist of a Fortune Magazine, Alfred Winslow Jones in 1949. He created such investment vehicle which is today known as the first HF. Its

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<sup>1</sup> Unfortunately for an industry as a whole, main attention was received because of spectacular collapse of HF Long Term Capital Management in 1998. and Quantum HF “attack” on British pound in 1992.

main characteristics were significant part of owners' funds invested in fund's capital, legal exemption, performance fee and combination of long and short positions. Precisely, this combination of long and short positions meant that the positions were „hedged”, which finally become a name for the whole industry.<sup>1</sup> In next decades, industry had its ups and downs, but it remained pretty much under the radar of broader public and investors until last decade of a 20<sup>th</sup> century.

Hedge funds industry has grown significantly in the last two decades. An estimate size of the industry at the end of 2010 is about 1, 92 trillion dollars (Herbst – Bayliss, 2011.) which is almost 12 times bigger than in 1993.<sup>2</sup> Even global financial crisis didn't impact HF as bad as one could expect comparing it with traditional investments.<sup>3</sup>

Such a rise was contributed to by many factors. One of them is the fact that big institutional investors like pension funds, insurance companies and endowments decided to start investing part of their funds into hedge funds. According to Swensen (2009), their motivation was supposed to be a high level of returns and independence with market movements, which is opposed to traditional, relative, benchmark beating oriented managers. This independence was highly appreciated since financial markets became highly globalised, and thereafter interconnected which increased volatility of worldwide markets. Another reason behind the trend was a better performance of hedge funds comparing to traditional investments after a collapse of dot-com bubble at the end of the century in the USA and consequent recession that ensued.<sup>4</sup>

For a better understanding of HF industry growth, one must realize that, according to Modern Portfolio Theory (MPT), adding investments with correlation coefficient of less than 1 in investment portfolio can reduce risk (measured through volatility) without equal decreasing of portfolio return. So, what was needed – according to MPT

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<sup>1</sup> Name Hedge Fund was first time used in 1966. in an article named *The Jones Nobody keeps with* in Fortune magazine

<sup>2</sup>According to CST Dow Jones index, HF managed \$ 160 billion in 1993.

<sup>3</sup> CST Dow Jones index fell 19% in 2008. comparing with 42% fall of S&P 500 index.

<sup>4</sup> Hedge funds, measured by DJ CS HFI, returned to their investors approximately 13% aggregately in a period 2000-2002, while S&P500, in the same period, lost about 38% of its value.

– was combination of instruments that do not behave in the same way. It would be perfect if those instruments showed negative correlation, which means, their returns move in opposite direction. When national markets become insufficient space for diversification, introducing international instruments would provide additional benefit and therefore, even more reduce portfolio risk.

Last two decades are characterized by globalization of financial markets. Globalization, fueled with development in IT, directly influenced investment portfolios across the world. What used to seem as independent markets suddenly become a big global network where bad news in one part of the world spread all around the world in a millisecond. Consequently, diversification through traditional investments, e.g., stocks and bonds, becomes less efficient. Institutional investors needed something different. They needed investment vehicle that could produce returns unrelated to the mainstream of financial markets. So, the stage was set for a greater market share of alternative investments, especially HF.

### **3. Diversification potential of HF industry during the global financial crisis**

As it was already mentioned, diversification's purpose was the primary reason why big institutional investors decided to start investing in HF. They hoped to increase their risk adjusted returns. And HF managers – due to regulative freedom and variety of techniques they were able to persuade – on the other side were ready to accept money, deliver superior risk adjusted returns, and collect enormous performance fees. That is how it was supposed to function in theory. And the theory was based on the premise that HF can and will provide returns regardless of market movements; basically, returns that are generated by different factors when compared to traditional investment returns. But, the things didn't develop according to the theory.

Before we start the analysis of HF results during the actual financial crisis, it is important to state that there are certain doubts about accuracy of those results. Namely, some researchers pointed to the fact that returns provided by HF data providers are overestimated, or upward biased. Fung and Hsieh (2002) state three reasons (biases) for overestimating the HF results:

- *Survivorship bias* – result of the fact that some funds are being excluded from databases and indices because they don't exist anymore. One can assume that one of the main reasons for getting out of business is poor performance. Therefore, official<sup>1</sup> databases provide only data about HF that didn't fail, which means more successful part of HF arena. All of this can suggest that results are being overestimated. There is no consensus about the amount of overestimation, but, according to Fung and Hsieh (2000), it can upward bias returns up to 3,4% annual.
- *Self selection bias* – results are biased because HF managers are not required to disclose their results to anyone but to their investors. Due to such a private nature of HF, it's very possible that HF with better performance will have a stronger motive to decide to publish their results. It is difficult to assume that the opposite case will not hold. This characteristic will lead to the overestimation of returns.
- *Backfill bias* – results are biased because new managers in the base are allowed to include their prior track. There is no doubt that managers with better past returns will be encouraged to do that in order to look more attractive to prospective investors. Due to backfill bias, HF returns are overestimated to up to 1,4% per annum Fung and Hsieh (2000).

Based on all this biases, one can see how difficult a trial to explore results of a HF industry can be. Nevertheless, it is still important – despite all aforementioned biases – to show if HF can resist global meltdown, like one we witnessed in the year 2008.

In order to explore correlation coefficient between HF industry and traditional investments, it's very important to use representative samples for both industries. Despite all problems in finding official database<sup>2</sup> in unregulated industry, in this paper will be used Credit Suisse Hedge Fund Database, which is considered as one of the most representative with more than 8,000 HF in it, and it's index, Dow Jones Credit

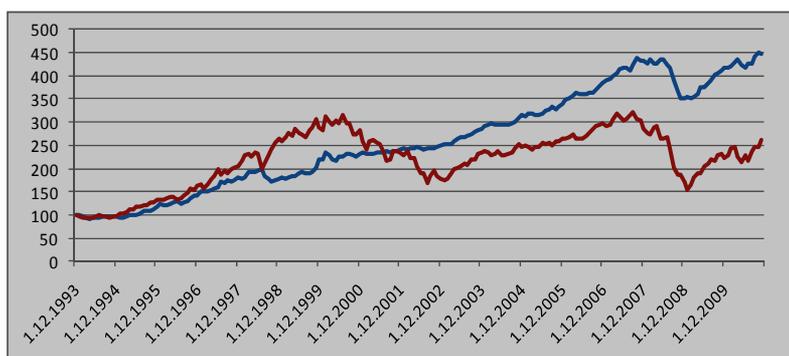
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<sup>1</sup> It must be stated that, due to low level of regulation, and unlike traditional mutual funds, there are no one central, official databases but few private providers compete to provide best possible data.

<sup>2</sup> There is no central database in HF industry, but some bases are more used than others. In that category belong: Lipper TASS, HFR, CISDM and Credit Suisse Hedged Fund Database.

Suisse HF Index,<sup>1</sup> as a represent of HF universe. For traditional investments, S&P 500<sup>2</sup> index will be used as a representative for USA stock market. All figures in the paper are created with the help of data from Credit Suisse Hedge Fund Database.

If we observe HF results in the period (1994-2010), it can be noted that they performed better than traditional investments, measured by S&P 500. Figure 1 shows this relation.

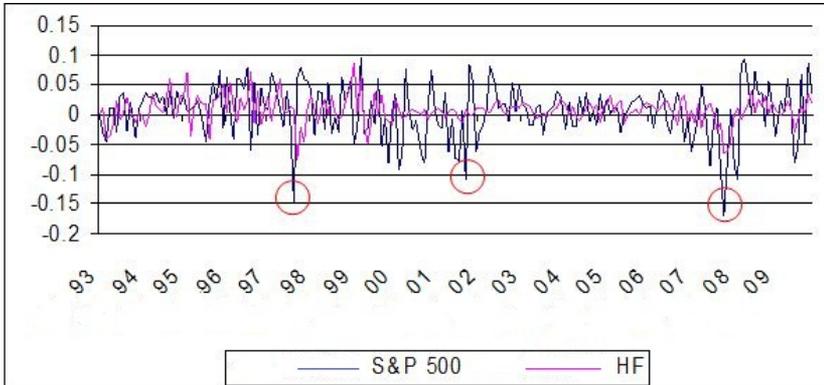


**Figure 1. Comparison of \$100 investment in HF and S&P 500 (1994-2010)**

As one can see, HF delivered much better returns, with turning point after dot com bubble and consequent recession in the USA. Of course, it is very important to compare the return of certain investment with its volatility. This relationship is summarized in Figure 2.

<sup>1</sup> In order to be included in this index, a HF must satisfied three condition: a minimum one year track record, audited financial statements and at least \$1 million in AUM.

<sup>2</sup> Index of 500 large capitalization common stocks actively traded in USA. It is often being used as an approximation for whole US market.



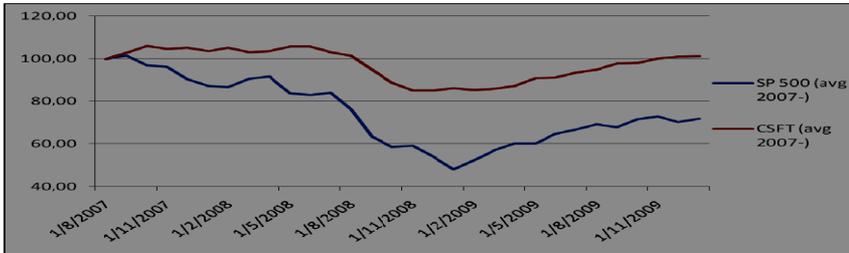
**Figure 2. Variability of HF and S&P returns (1993-2010)**

It can be easily noted that traditional market had a much larger portion of volatility, measured through standard deviation of returns compared to HF. This characteristic especially becomes relevant during times of market turbulences<sup>1</sup> when HF industry had shown better resistance to unexpected shocks. This low volatility became additional advantage of HF managers who try to promote their funds in order to subscribe new clients. So, it was obvious in the last two decades that HF provided their investors, not only with means for diversification, but also with an investment option which can deliver better returns compared to traditional investments.

If one observes only the period of the current economic crisis, it can also be noted that different industries returned significantly different numbers to its investors. But, both

<sup>1</sup> Long Term Capital Management crisis, *dot com* collapse, 2001-02 recession in USA, October 2008. meltdown.

industries still posted negative returns. Comparative results for period August 2007-December 2010 can be seen in Figure 3.<sup>1</sup>



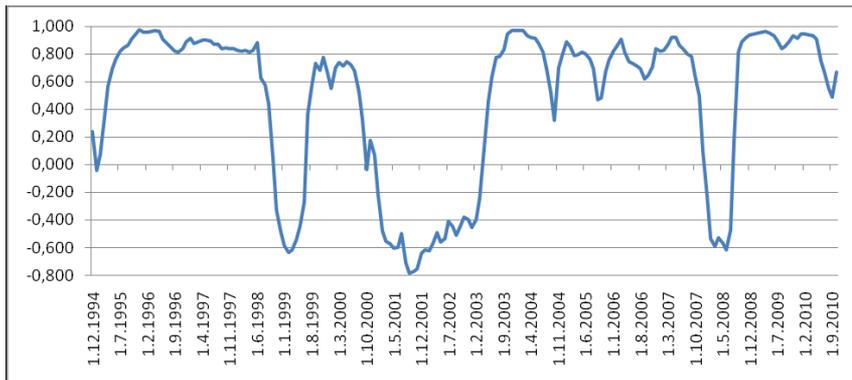
**Figure 3. Comparison of HF and S&P returns (Aug 07- Dec 10)**

Obviously, there is no such a thing as an absolute return. Also one must acknowledge that HF industry brought back to August 07 level much faster unlike traditional investments. Will this fact satisfy absolute return seekers is about to be seen.

Other thing HF investors are concerned by is its diversification potential. They want to decrease the risk of their portfolios by investing in HF. Their intention is to decrease standard deviation of their portfolios by investing funds in alternative investments, which – according to the theory – behave independent related to whole market. This (in)dependence will be tested here with the help of correlation coefficient. As it is already known, this coefficient shows degree of linear relationship between two variables. If it has value of 1, it means that variables have perfect linear relationship, and from MPT standpoint of view, introducing such an instrument to the current portfolio will not have positive impact. With the decrease of this coefficient to 0, linear relationship becomes weaker, and it brings positive effect to overall portfolio. If a potential investment is negatively correlated to the current portfolio, it can decrease, or

<sup>1</sup> It was being taken August 2007 as a starting point of a collapse of USA subprime mortgage crisis, which became later a global financial, and at the end, global economic meltdown.

in special conditions, totally remove whole unsystematic risk.<sup>1</sup> So it is interesting to observe behavior of this coefficient during last seventeen years, and especially, during the global financial crisis. Figure 4 shows 12 month rolling correlation coefficient between S&P 500 and DJ CST HF index for the period from December 1993 to December 2010.



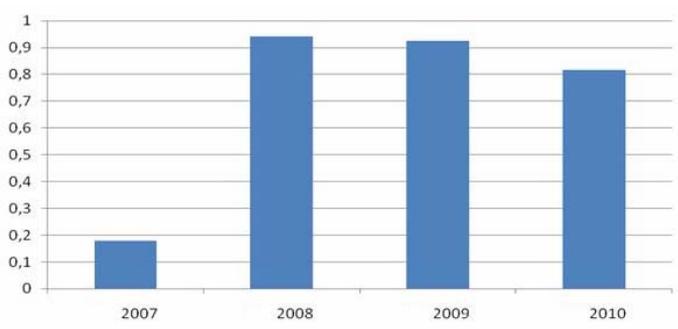
**Figure 4. Moving correlation between S&P 500 and DJ CST HF (Dec. 93 – Dec 10)**

We can observe here few interesting facts. The first one is that correlation between traditional and alternative investments is anything but a stable category. Huge changes happen in different time intervals. Second – very important from HF point of view – point is that periods with higher correlation coefficient lasted longer than those with

<sup>1</sup> According to CAPM (Capital Asset Pricing Model), whole risk, measured with standard deviation, can be decomposed on two components. The first one is systematic risk, which is imminent to all kinds of investments and which cannot be removed through process of diversification. The other one, according to CAPM, called unsystematic risk, can be totally removed through process of diversification.

negative one. Although this may sound partially reasonable<sup>1</sup> problem is in the fact that basic advantage of HF, and finally, reason why they were being included in investments portfolio, can be challenged and disputed. Third point that can be observed in Figure 4 is that, during turbulent times in financial markets,<sup>2</sup> correlation coefficient between traditional and alternative investments increase to almost one, which means, their returns move in almost perfect linear relationship. That diminishes diversification potential and brings about questions during the construction of portfolio – is HF power of diversification only a myth?! The answer, based solely on this point of view is obviously a positive one. Finally, it must be recognized that during certain periods, HF are negatively correlated to traditional investments, which can, no doubt, help in reducing the risk of total portfolio.

If we observe only the period between 2007-2010, the aforementioned fact can be confirmed. Best proof for that can be seen in Figure 5.



**Figure 5. Correlation coefficient between S&P 500 and DJ CST HF (2007-2010)**

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<sup>1</sup> At the end both, traditional as well as alternative investments belong to segment of financial markets.

<sup>2</sup> LTCM crisis, recession 2001-2003, current economic crisis which exploded in September 2008.

Last three years definitely confirmed that during the financial meltdown, HF can't significantly reduce the total risk of investment portfolio. Nevertheless, they still posted better results compared to traditional investment, but whether that fact can satisfy investors who seek absolute return, is not difficult to guess.

#### **4. Different strategies of HF industry**

As it has been already mentioned, HF industry represents a set of different approach to investment management, with some common characteristic. Different approach form, the so called HF strategies, acts as a basic ground for classifying the whole industry. There are a myriad of strategies used by HF managers, but all of them, according to a study by Garbavicius and Dierick (2005), can be classified in four main groups:

- Arbitrage HF (aka Relative value HF) try to protect their investments through combination of long and short positions while – at the same time – try to exploit price discrepancies and make profit. This group of HF is characterized by low volatility. They try to achieve satisfying results with huge amount of leverage, which can sometimes result in huge consequences, not only to specific HF.<sup>1</sup> The most known sub strategies of this group are:
  - Arbitrage HF
  - Fixed income HF
  - Long/short Equity HF
  - Neutral HF
- Event driven HF try to make profit in specific corporate situations, like mergers, acquisition, bankruptcies, etc, when it is expected that prices of target companies change significantly. Stefanini (2006) states that this strategy owns its name to

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<sup>1</sup> LTCM used this strategy with huge amount of leverage of 28:1, excluding off balance sheet positions. LTCM fall almost caused unforeseeable consequences in financial markets, not only in USA.

the fact that they exploit corporate events that are not related to market movements.<sup>1</sup> This strategy consists of:

- Distressed debt Hedge Funds
  - Special situation Hedge Funds
  - Risk Arbitrage Hedge Funds
- Directional HF owe its name to the simple fact that they take directional positions on various assets, without neutralizing it with contrary position. They try to foresee market movements, and based on accurate predictions, earn extra profit to their investors. It is diametrically opposite strategy from original A.W. Jones idea, which only proves how much HF industry evolved during last half century. This strategy can be divided on:
    - Global Macro Hedge Funds
    - Managed Futures Hedge Funds
    - Dedicated Short Selling Hedge Funds
  - Last, but not the least group of HF are Fund of hedge funds (FoHF). As its name suggests, this group of HF invest primary in existing HF with goal to decrease risk for its investors. This may sound controversial since investing in too many different HF can neutralize main characteristic of HF industry – exposure to specific – independent from market – investments. Anyway, fear and desire to diversify its investments, forces investors to invest their money in this group of HF. Another disadvantage of FoHF is the so called double fee<sup>2</sup> problem, which significantly decreases return.

Current HF strategy weights can be seen in Figure 6.

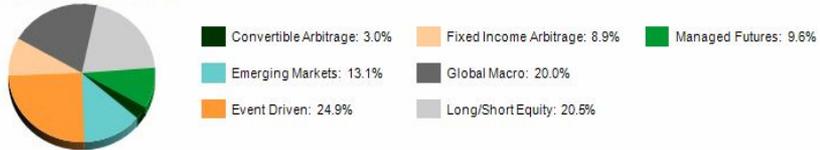
As it can be seen, three strategies, Event Driven, Global Macro and L/S Equity, consist of more than 2/3 of the whole industry.

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<sup>1</sup> It must be acknowledged that corporate events like bankruptcies tend to happen much more during financial meltdown than in normal market conditions.

<sup>2</sup> Investors in FoHF pay fees to original HF, as well FoHF.

#### Current Sector Weights



**Figure 6. Current Strategy Weights of HF industry (2011)**

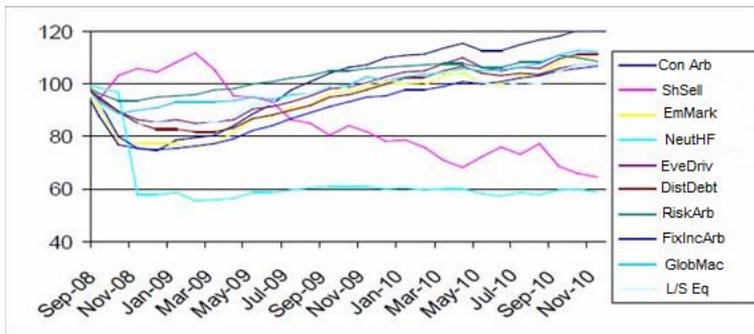
This is not definite classification of HF industry, since something like that doesn't exist. It can probably be stated that number of HF strategies is constrained only by current regulative and HF managers' creativity. But, it is also important for investors to differentiate these strategies since they don't behave similarly, and consequently, their returns don't have perfect correlation, which ultimately, can impact process of portfolio construction. And, investing in HF, almost exclusively consists of investing in one particular strategy, unless one invests in FoHF.

How different HF strategies behaved, and how each of these alone correlated with traditional investments will be explored in next pages. Although HF industry lost part of its value during the financial meltdown starting in September 2008, there were some strategies that actually profited in the very same period, and many strategies, although failing, showed significant differences in returns. It can be seen in Figure 7.

It can be observed that, even in the worst month in the history of financial markets, there was a strategy<sup>1</sup> that performed positive results. Of course, all other strategies posted negative returns, but some rebounded faster than others. This Figure also proofs strongly that, during market turmoil, it can hardly be found an investment that will provide positive return to its investors, no matter whether it belongs to traditional or alternative investments.

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<sup>1</sup> Short Selling strategy posted positive returns. It is not strange due to the fact that its basic contrarian strategy that only wins when markets go down.



**Figure 7. Results of different HF strategies (Sep 2008 – Dec 2010)**

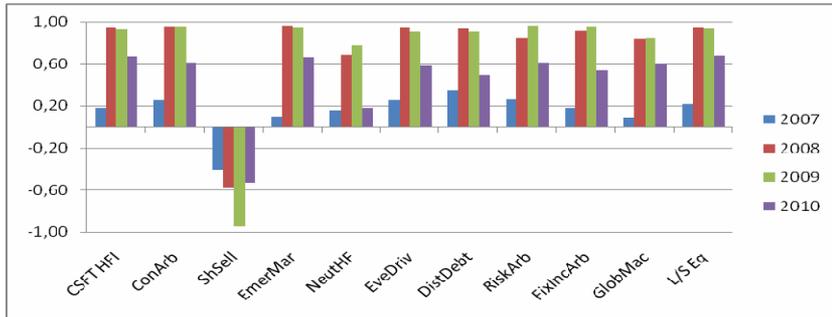
Diversification potential of specific HF strategies can also be questioned. Although there is no doubt that there are some strategies whose returns move opposite to the whole market, during the financial turmoil, most of these strategies behaved exactly like the whole HF industry, which means they are almost perfectly correlated with the rest of the markets. This relationship can be seen in Figure 8.

All strategies except for Short Selling strategy had high level of correlation coefficient in 2008 and 2009 which also proves weak resistance to extreme market movements. Some of these had lower correlation to S&P 500 than others<sup>1</sup>, but differences were not meaningful enough to change the complete picture. One can also notice decrease in correlation coefficient for almost all strategies in 2010 which can also be seen as an indicator of stabilizing trends in financial markets.

If we summarize results of this research, it can be confirmed that HF can provide better risk adjusted returns, not only during stable times in financial markets. But, they also, as an industry, failed to provide positive, absolute returns to their investors. It must

<sup>1</sup> For example, Neutral strategy had lower correlation compared to others.

also be recognized that diversification potential, seen through MPT, doesn't justify its purpose and theoretical grounds, based on which alternative industry had grown, in the first place.



**Figure 8. Corr. coef. between HF strategies and S&P 500 (2007-2010)**

## 5. Conclusion

This paper explores theoretical assumption that alternative investments, especially HF, can provide better diversification of investment portfolio through the fact that their returns are weakly correlated to traditional investments, e.g. stocks and bonds. It was shown that this fact might be true, but only during stable times in financial markets, but even then, not always. But, it was also shown that HF, as an industry, during the market turmoil shows significant increase of correlation to traditional investments and almost reaches 1, i.e. perfect positive correlation. Based solely on this fact, it is not difficult to assume that diversification through investing in HF will not preserve investment portfolio from loss.

However, it was also shown that HF in last two decades provided better returns to their investors, in aggregate. Industry couldn't provide positive returns during extreme situation in financial markets, but its loss was still significantly smaller than from those in traditional investments. Can that be sufficient satisfaction to those who seek absolute returns, remains a question.

It is important to comprehend that HF have a place in investment industry. Although there is a big debate among regulators, investors and investment public about the responsibility of alternative investments industry for global financial crisis, today it is pretty clear that HF – due to their unregulated nature and ability to use different investment techniques and tools – will always be attractive investment alternative to institutional and rich private investors. Data presented in this paper support this statement.

## References

1. Frush, S. (2008), *Hedge Funds Demystified*, McGraw-Hill, Inc
2. Fung, W., Hsieh, D.A., 2002, *Benchmarks of Hedge Fund Performance: Information Content and Measurement Biases*, Financial Analyst Journal 58, p. 22-34
3. Herbst-Bayliss, S. (2011) [Hedge fund industry assets swell to \\$1.92 trillion](#). Reuters, Wednesday 19 Jan 2011.
4. Jaeger, R. A. (2003), *All About Hedge Funds*, McGraw-Hill, Inc
5. Lhabitant, F.S. (2006), *Handbook of Hedge Funds*, John Wiley & Sons, Ltd., Chichester, West Sussex, England
6. Rodic, Gojko (2011), *Hedge fund industry in the light of global financial crisis*, Unpublished Master dissertation, University Union, Belgrade
7. Stefanini, F., 2006, *Investment Strategies of Hedge Funds*, John Wiley & Sons, Ltd., England
8. Swensen, D. (2009), *Pioneering Portfolio Management*, Free Press

# The Challenges of the Law in Promoting Sustainable Development

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This case study examines sustainability orientation within the legal area of the management of Estonian public organizations. Additionally, the paper focuses on the theory of Talcott Parsons in the context of sustainability. It will be argued that Parsons' AGIL scheme provides a model of sustainable development. As a result of the study, an original content model describing sustainability orientation within the bodies of legal acts was designed. Taken together, the findings of the study suggest an actual and ever-growing role for public sector management in promoting sustainability as well as corporate social responsibility within the public, private and third sectors.

**Keywords: public management, sustainable development, law-making, Carroll's pyramid of corporate social responsibility & Parsons' AGIL scheme**

## 1. Introduction

According to many authors (Smith and Sharicz, 2011; Doppelt, 2010; Alange and Steiber, 2009; Benn, 2007; Berkhaut, 2005), corporate social responsibility (CSR) provides the starting point that businesses and organizations need to begin moving

towards sustainability. Unfortunately, as Littig and Grießler (2005) point out it is rather a long way from the scientific insights of sustainability to actual implementation in national strategies, where ideas are also subject to the usual deformations and selectivity of the political process. The political process often simplifies, reduces and changes the initial focus (*Ibid*).

In this paper, first a short theoretical background of CSR, sustainability and law-making is introduced. After this, Parsons' general theory of action (the so-called AGIL paradigm or AGIL scheme) in the context of sustainability is studied, providing a basis for the following case study, which analyses the readiness of the legal area of the management of Estonian public organizations to develop and support sustainability. In the last section, a concluding summary is offered.

## **2. Theoretical Background**

### ***2.1 Corporate Social Responsibility and Sustainability***

The European Union defines CSR as a concept whereby companies integrate social and environmental concerns into their business operations and in their interaction with their stakeholders on a voluntary basis (Commission, 2001). The Review of the European Union Strategy for Sustainable Development confirms that greater commitment to CSR on the part of European enterprises will enhance Europe's capacity for sustainable development (Commission, 2009).

Carroll (1991) divides corporate social responsibilities into a four-level pyramid, separately naming economic, legal, ethical and philanthropic responsibilities<sup>1</sup>.

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<sup>1</sup> His model of CSR has been widely used as the basis for empirical studies. For example, Crane and Matten (2004) proved that all four CSR dimensions play a role in the European context; the empirical study of Shum and Yam (2010) demonstrates that corporations can be led to engage in more voluntary CSR activities when appropriate legal and ethical controls are in place.

CSR is often named as a broader perspective of corporate governance, where CSR reporting and various stakeholder representatives play an important role (Huse, 2005; Kochan, 2003).

Some authors point out that there is no clear definition of what CSR is, or should be, which means that there are no clear guidelines on how companies or organizations should adopt CSR (Smith and Sharicz, 2011; Quiroz-Onate and Aitken, 2007). Thus, truly satisfactory implementation of the broad CSR concept as well as the more specific challenges of corporate sustainability continue to be an elusive goal at the corporate management level (Smith and Sharicz, 2011; Kleine and von Hauff, 2009), and reality shows that the economic bottom line still dominates in corporate decision-making (Smith and Sharicz, 2011; Steger *et al.*, 2007).

Three aspects of sustainable development have been agreed upon: economic sustainability, environmental sustainability and social sustainability. In the Ljubljana declaration, the 13<sup>th</sup> European Conference of Ministers responsible for Regional Planning (CEMAT) introduced a fourth dimension: that of cultural sustainability<sup>1</sup> (see CEMAT, 2003).

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<sup>1</sup> This standpoint was supported by the International Union for Conservation of Nature (IUCN) (see Jeanrenaud, 2007). Culture as one of the key elements of developing sustainability is also pointed out by Smith and Sharicz (2011), who maintain that in this context researchers mainly concentrate on the development of the competencies and knowledge related to sustainability adoption, and talk little about the cultural characteristics that nurture such attributes or about how employees at all levels become motivated practitioners of a sustainability philosophy (*Ibid*). Here it should be remembered that human and social capital must be taken into account as crucial aspects of sustainable development (Šlaus and Jacobs, 2011; McCallum and O'Connell, 2009; Lauristin, 2011& 2006; Lauristin and Terk, 2009; Raudsepp and Heidmets, 2005; Grootaert, 1998). Social and human capital are linked in complex ways and, to some extent, feed into each other (Keeley, 2007), because human capital consists of individual knowledge, skills, experience, health and ethical entitlements that enhance the potential for effective individual action (Becker, 1964; Schultz, 1961), while social capital consists of shared knowledge and related organizational networks that enhance the potential for effective individual and collective action in human social systems (McElroy *et al.*, 2006; Putnam, 2000; Coleman, 1990).

Knowledge management as a pillar of organizational performance has been examined in several studies (see for example Zack *et al.*, 2009; Heisig, 2009; Chua, 2009). Heidmets (2004) pointed out the significance of knowledge-based decision-making for sustainable society and claimed that both technological and social innovation are essential parts of sustainable development<sup>1</sup>.

Hoexter (2006) defines seven principles of sustainability, among them holistic systems thinking, linking and re-valuing the local and the global and fairness/equity. This last refers to ethical sustainability, while all six others refer to economic and ecological sustainability (*Ibid*).

Smith and Sharicz (2011) also provide seven key elements of sustainability, but they locate systemic thinking as well as balancing global and local perspectives in leadership besides the others, which are governance, business plan, organization learning, culture (as mentioned previously), information systems and measuring and reporting<sup>2</sup>. They feel that although the Global Reporting Initiative (GRI) produces one of the world's most widely used standards for sustainability reporting (see the GRI website), GRI guidelines are insufficient to assure that a report answers the questions of how sustainable a company is, or how quickly it is approaching sustainability (*Ibid*)<sup>3</sup>.

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<sup>1</sup> In recent years, various authors (Smith and Sharicz, 2011; Nejati *et al.*, 2010; Lacy *et al.*, 2009; Lönnqvist *et al.*, 2009; Geertshuis, 2009; Chen *et al.*, 2008) also suggest that not only technological enhancements but also knowledge assets are an essential strategic resource for any organization in achieving long-term success and sustainability. Moreover, the need for the knowledge society came under study in the report of the European Commission "Sustainable development indicators" as a further need in the view of the EU (Adelle and Pallemarts, 2010).

<sup>2</sup> Searcy (2009) suggests that measuring corporate sustainability is a complex problem requiring time and other resources. Roostalu and Pihelgas (2011) as well as Adams and Larrinaga-Conzález (2009) have showed that in the field of management accounting, sustainability orientation and reporting have largely ignored practice within organizations, with detrimental results.

<sup>3</sup> The results of Roostalu and Kadak (2011) also indicate that GRI quantitative indicators do not describe all aspects of sustainability and that there is a need for qualitative indicators.

In the European Commission, the first set of sustainable development indicators was adopted in 2004 and revised in 2007 (Georghiou *et al.*, 2009). These indicators are used to monitor the European Union's Sustainable Development Strategy in the economic, social and environmental dimensions of sustainability, and are published every two years in a Eurostat report (*Ibid*).

### **2.1 Dual Character of Law and Social Information as Input for Law-Making**

Schiff (1981) examined the works of sociologist of law Nicholas Timasheff and concluded that Timasheff sees law as a social phenomenon determined by the primary elements of ethics and power. According to Timasheff, the relation between law, ethics and power is such that where ethics and power overlap 'the overlapping section is law'<sup>1</sup> (*Ibid*).

For Talcott Parsons (1951), law is conceived as an essential mechanism of social control, and 'the primary function of a legal system is integrative' (Parsons, 1962, p. 58, cited in Trevino, 2009, p.15).

Ginter *et al.* (1998) maintained that in the law-making process the use of social information by European parliaments is occasional and not regulated. Moreover, Käärrik (2000 & 1998) showed that there have been and continue to be different and

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<sup>1</sup> Timasheff develops this approach to law by diagnosing the role of social co-ordination. He describes four possible types of social co-ordination: 1) ethical co-ordination (rules socially approved of); 2) non-ethical co-ordination (rules generally disapproved of by the social group); 3) imperative co-ordination (rules imposed by a centralised force); and 4) non-imperative co-ordination (rules imposed by the equal interaction of group members). Hence the four following logic types emerge: (a) non-ethical and non-imperative; (b) ethical but non-imperative; (c) imperative but non-ethical; and (d) ethical and imperative (Timasheff, 1938, p. 216, cited in Schiff, 1981, p.408). Here the first type is an impossibility in social terms; the second emerges through custom and social morals and is dependent on some notion of group conviction; the third is enforced by despotic government and is reliant on certain conditions of monopoly of power; and the fourth is created by law, thus giving law the dual character of ethical and imperative (*Ibid*).

even diametrically opposed viewpoints about this topic among philosophers, lawyers and sociologists of law<sup>1</sup>. In general, since sociology describes what the reality of society is, while law describes the goals of what the reality of society should be, the great majority of lawyers believe that in law-making the role of the sociology of law and the use of social information is not obligatory (*Ibid*). On the contrary, Evan (1980) noted that a new rational law should follow the cultural and legal principles of the state: law-making is impossible for an ‘empty place’ without taking into account the value judgements of society.

### **3. Parsons’ AGIL Scheme in the Context of Sustainability**

Talcott Parsons became the leading theorist in American sociology from the 1940s to the 1960s, largely as a result of having produced a distinctly modern sociological theory (Trevino, 2001). In Parsons’ framework of functional analysis, the concept of ‘society’ is replaced by that of the ‘social system’<sup>2</sup> and given that Parsons was a systems analyst, the notion of ‘system’ became a key component of his theorizing

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<sup>1</sup> Käärrik (1998 & 2000) asserts that in this scale of opinions the most radical view is given by Jürgen Habermas. Namely, Habermas’ concept of discursive democracy provides an idealized, normative account of the democratic process, and for him, practical norms, whether legal or moral, are legitimate if and only if all those possibly affected agree to them as participants in rational discourse (Habermas 1996, p. 107). Deliberative politics acquires its legitimizing force from the discursive structure of opinion- and will-formation that can fulfil its socially integrative function only because citizens expect its results to have reasonable quality (Habermas 1996, p.304, etc).

<sup>2</sup> This is society as a whole, or the various institutions such as the family within society. Parsons’ definition of the social system is that a social system consists of a plurality of individual actors interacting with each other in a situation which has at least a physical or environmental aspect, actors who are motivated in terms of a tendency to the ‘optimization of gratification’ and whose relation to their situations, including each other, is defined and mediated in terms of a system of culturally structured and shared symbols (Parsons, 1951, p. 5-6).

(*Ibid*). Parsons claimed that his theory of social systems<sup>1</sup> is an integral part of a larger conceptual scheme which he called the general theory of action<sup>2</sup> (*Ibid*).

Parsons' main idea is that to maintain equilibrium with respect to its environment, each social system must perform the four following basic functions (Parsons, 1951; Parsons and Smelser, 1956; Parsons and Shils, 1962): adaptation (A), goal attainment (G), integration (I) and latent pattern maintenance (L). A is related to the system's material environment (resource-maintaining); G means the ability of its individuals or groups to identify and pursue goals; I refers to the social system's cohesion and solidarity, including social control; and L correlates to its sphere of main values motivating its actors (see for example Appelrouth and Edles, 2008, p.361). These functions are in accordance with the four structural categories: A with the roles of the system; G with its organizations; I with its norms; and L with its values. As early as 1953, Parsons tentatively suggested that the four functions might be used to represent major dimensions of structural differentiation in society as a whole (Fox *et al.*, 2005, p.8).

During the 1950s and 1960s, Parsons gradually produced a theory of four functionally specialized subsystems of society, where these above-mentioned functions are correspondingly given to the four subsystems of the social system: A to the economy; G to the polity; I to norms (including legal acts); and L to the education of values (also via religion) as well as the communicating and preservation of these values (Parsons, 1951; Parsons and Smelser, 1956; Parsons and Shils, 1962).

Parsons argued that equilibrium is only a theoretical point of reference and that an action system is never completely stable – actions must be understood as processes in

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<sup>1</sup> His model of social systems can be classified as one of the open system theories of organizations and has been used to explain conflicts in society (see Fukushima and Shiratory, 2008, Shiratory, 1994, Rokkan, 1965).

<sup>2</sup> Parsons notes that action is a process in the actor-situation system which has motivational significance for the individual actor, or, in the case of collectivity, its component individuals. This means that the orientation of the corresponding action processes has a bearing on the attainment of gratification or the avoidance of deprivation for the relevant actor, whatever these may be in the light of the relevant personality structures (Parsons, 1951, p. 4).

time<sup>1</sup> and not isolated from one another (Appelrouth and Edles, 2008, p.351-355). Moreover, Parsons stressed that equilibrium is continuing existence of the system (Parsons and Smelser, 1956, p. 16-17): ‘According to the general theory, process in any social system is subject to four independent functional imperatives or ‘problems’ which must be met adequately if equilibrium and/or continuing existence of the system is to be maintained.’

In this article law is examined, and for Parsons, law (I) has two different ways of developing. The first stresses the significance of values (L) in changes in norms (I), which in turn leads to changes in politics (G) and the economy (A)<sup>2</sup>. The second way is vice versa, with changes in the economy (A) causing changes in politics (G), which brings about changes in the law (I) and finally changes in the education of values (L) – the geneses of a larger universality of the system’s main values (Parsons, 1951, cited in Käärik, 1998). Although Parsons does not provide any mechanisms for these changes<sup>3</sup> and for him as well as Weber law is an autonomous system, the coexistence of these two ways affirms that in the formation process of democratic political will, moral and legal norms form a complementary relationship and are not ordered by importance as Habermas also suggests (Käärik, 1998).

The second important thing in Parsons’ theory is that each of the four subsystems is treated as a complex set of dynamically interdependent institutions which, as a system itself, can in turn be analysed by another application of the same four-function paradigm (Fox *et al.*, 2005, p.8). Thus the need for latent pattern maintenance also

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<sup>1</sup> See Parsons (1949, p.45).

<sup>2</sup> Käärik (1998) and Fox *et al.* (2005) note that here Parsons is under the influence of Weberian religious-sociological works.

<sup>3</sup> In the words of Parsons (Parsons, 1951), the ‘process of change in the social system is exclusively determined by its culture and the configurational processes of culture development’ (p. 204-205); ‘as our knowledge of the laws of social process develops we will be able to say more and more about the conditions under which certain types of states of affairs in various parts of social systems, and in the external variables impinging on them, tend to lead to various types of change’ (p. 490-493).

exists within all of the units or subsystems of each social system, including the economy<sup>1</sup> (Appelrouth and Edles, 2008, p. 361-362).

Hence Parsons' model reflects a strong requirement for the balancing of society's values and norms as well its economic, ecological, social and cultural sphere<sup>2</sup>. Although Parsons does not write about stakeholders and stakeholder management, he states that: 1) latent pattern maintenance includes tension management; and 2) the basis of social action can be termed voluntarism (see for example Parsons, 1949, p.701; Parsons and Smelser, 1956, p.18). In addition, he points out 'a fundamental phenomenon' that may be called the 'complementarity of expectations', 'in the sense that the action of each is oriented to the expectations of the other' (Parsons, 1951, p.15). Therefore, my conclusion is that Parsons' AGIL scheme provides a model of sustainable development.

## **4. Empirical Study**

### ***4.1 Purpose, Scope and Methodology of Study***

The objective of the case study reported on in this article was to determine the level of suitability of Estonian legal acts to support sustainable development within public organizations or, in other words, the level of sustainability orientation of these legal acts.

The electronic database of the legal acts of Estonia includes 300 acts with the keyword 'public', 49 with the keyword 'ministry' and 108 with the keyword 'local government' (Website of the Ministry of Justice, *i.a.*). Thus, a sample including 33 legal acts was selected (see Appendix, Table 2). According to the significance of local government in

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<sup>1</sup> For example, the great depression of 1929 was rooted in collective panic, a lack of faith in the banking system – or in Parsons' terms, a failure in latent pattern maintenance (Appelrouth and Edles, 2008, p. 361-362).

<sup>2</sup> Parsons (1951) explains that we may distinguish two main aspects of adaptation: 1) technological and ecological; and 2) socio-cultural aspects (p.44). This refers to technological and social innovation. In addition, he stresses the significance of learning process in sozialization i.e. role-orientation (p.74-75).

the life of the community<sup>1</sup>, the acts referring to local governments are more widely represented in this sample than those related to other public organizations.

Using Parsons' AGIL scheme, these acts were grouped as follows (see also Table 2):

1. acts describing general managerial issues and tasks (11 legal acts) or acts of adaptation (A);
2. acts providing a framework for the strategic management of public organizations (10 legal acts) or acts of goal attainment (G);
3. acts setting accounting and reporting tasks of public organizations (7 legal acts) or acts of integration (I); and
4. acts of ethical tasks (5 legal acts) or acts of latent pattern maintenance (L).

Additionally, it was expected that these acts would generally not include direct requirements for sustainability. Thus, the goal of the study was to identify phenomena or indicators of sustainability within the bodies of the legal acts, which in turn referred to the need to use qualitative content analysis for the interpretation of the texts of the acts. According to the different factors of sustainability which were pointed out in section 1.1, 11 indicators were used in the content model (see Table 2).

A three-value scale was used (0, 0.5 and 1), where 0 means the lack of an indicator, 0.5 refers to a partly (or weakly) represented indicator and 1 to a fully represented indicator. A short commentary must be given for the 6<sup>th</sup> indicator, which describes the holistic system of sustainability: here 1 point was given when all five previous indicators reflecting economic, environmental, social and cultural sustainability as well

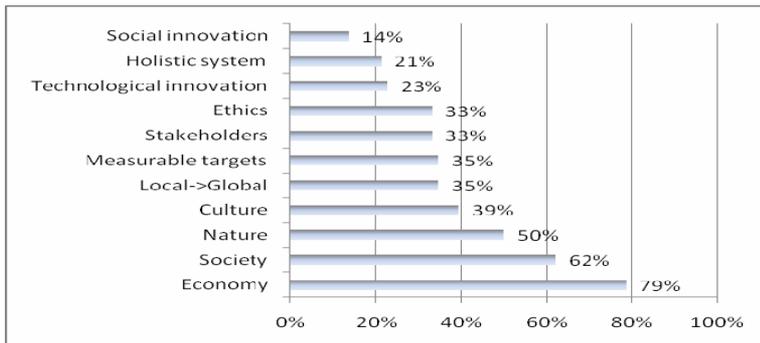
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<sup>1</sup> For example, Biart (2002) offers a narrow definition for sustainable development: 'It aims to determine the minimal social requirements for long-term development (sometimes called critical social capital) and to identify the challenges to the very functioning of society in the long run', and in turn Prachett (1998) argues: 'Local government, as the institution of democracy closest to local communities, has a vital role to play not only in behaving democratically, but also in engendering and enhancing democratic practices and consciousness among all its citizens. In short, there is significant social capital to be gained from engaging citizens in the governance of their own communities.'

as stakeholder involvement were fully presented or close to it (i.e. their score sum was 5 or 4.5 points), and 0.5 points when the sum of the scores of the first five was 3, 3.5 or 4 points.

#### 4.2 Results of Case Study

First, the results by sustainability indicator were calculated. Figure 1 shows that in this sample of legal acts, economic sustainability obtained the best score, while the results in social innovation, holistic systems and technological innovation were extremely low. The level of cultural sustainability is weak compared to the levels of economic, environmental and social sustainability. At this point it should be remembered that as early as 2004, Professor Kaevats warned that we have ruthlessly exploited our main advantages in competition – people and culture – without any sufficient investments in these advantages (Kaevats, 2004).



**Figure 1. Total performance by sustainability indicator**

Next, the average results in the four groups of legal acts were calculated (see Table 1), which indicate that acts of goal attainment generally have better sustainability

orientation than acts of adaptation, latent pattern maintenance and integration, where the results were weak.

<b>Average results per act</b>	<b>Economy</b>	<b>Nature</b>	<b>Society</b>	<b>Culture</b>	<b>Stakeholders</b>	<b>Hollistic system</b>	<b>Local-&gt;Global</b>	<b>Ethics</b>	<b>Measurable targets</b>	<b>Technological innovation</b>	<b>Social innovation</b>	<b>Total average performance</b>
Acts of adaptation	73%	41%	68%	41%	50%	18%	27%	23%	18%	14%	9%	35%
Acts of goal attainment	75%	80%	60%	55%	45%	40%	55%	30%	45%	50%	25%	56%
Acts of integration	100%	50%	50%	29%	0%	7%	29%	14%	43%	14%	7%	31%
Acts of latent pattern maintenance	60%	0%	60%	30%	30%	10%	10%	80%	40%	0%	30%	32%

**Table 1. Comparison of average results per act by indicator in the four groups**

Hence, among these legal acts, the same tendency appeared which often emerges in organizations: strategic plans are not linked with budgeting and motivation, which predicts serious difficulties in implementing the strategies (Kadak, 2011 & 2008; Kaplan & Norton, 1996).

The following are remarks and examples by group.

#### Group A

In acts of adaptation, social sustainability and stakeholder orientation are better represented than in the other groups. According to the Ljubljana Declaration, the Local Government Organization Act states that a rural municipality or city should have a development plan 'which, in a balanced manner, takes into account the long-term directions and the need for the development of the economic, social, cultural and

natural environment and on the basis of which the development of different fields of life are integrated and coordinated' (Estonia, 1993 & 2005, § 37).

#### Group G

Acts of goal attainment excel in the highest levels of environmental and cultural sustainability, holistic system thinking, linking the local and the global, measurability (even better than in acts of accounting and reporting!) and technological innovation. The Estonian National Strategy on Sustainable Estonia 21 (SE21) can be characterized as the act with the best sustainability orientation of the sample (100%). The following citation perfectly illustrates this level (Estonia, 2005, p. 54):

The experts of SE21 judge that a powerful movement towards a knowledge society is basically the only development path that will ensure the sustainability of Estonia. The reason: a knowledge society is the only development model based on the reflective knowledge-based adaptation of society and the state to changes in both the internal and external environment, creating the necessary structures (institutional and intellectual support for strategic planning) and cultivating reflexivity and competence as the central qualities of society. For a small country lacking the resources to realize itself through the use of power, the wisdom of adaptation and self-management is in fact the only path to development and success.

#### Group I

Acts of integration are distinguished by the maximum (!) score in economic sustainability and very low scores in several other sustainability indicators (see Table 1). Here the Official Statistics Act was quite highly (68%) assessed<sup>1</sup> stating (Estonia, 2010, §1): 'Official statistics aim to reflect the condition of and changes in society and provide society with information that is relevant from the viewpoint of demographic,

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<sup>1</sup> It should be said that without this legal act the average results in this group fell notably. For example, the score of the Current Reporting Requirement for the Unities of Local Governments was the lowest in the sample. The biggest problem in the financial management of the Estonian public sector is that its accounting is accrual-based but its budgeting is still cash-based, which means that there is no comparability.

social, economic and environmental developments, including drawing up development plans and making prognoses, designing different policies, conducting scientific and applied research and taking knowledge-based decisions.’

#### Group L

In acts of latent pattern maintenance, the levels of ethics and social innovation are higher compared to other groups. Here the Bar Association Act and Churches and Congregations Act (Estonia, 2002) achieved the highest scores. The latter was included in the sample because ‘the purpose of this Act is to provide the procedure for membership of churches, congregations, associations of congregations, monasteries and religious societies and the regulation of their activities in order for freedom of belief, as guaranteed for all by the Constitution, to be exercised’ (see §1), and ‘religious associations are registered with the Ministry of Internal Affairs’ (§31). Additionally, there are strong requirements of ‘activities relating to morals, ethics, education, culture ... and social rehabilitation outside of the traditional forms of the religious rites of a church or congregation and which need not be connected with a specific church, association of congregations or congregation’ (§4). In contrast, the Anti-Corruption Act and Public Service Act obtained only 2 points out of 11, rendering them ineffective as tools for the promotion of ethics and sustainability<sup>1</sup>.

## 5. Conclusions

According to Carroll (1991), obeying the law is one of the key factors leading towards corporate social performance. In this paper, corporate social responsibility and sustainability within the public sector were studied by analysing the legal framework for the management of Estonian public organizations through the prism of sustainability.

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<sup>1</sup> The Public Service Code of Ethics as an annex to the Public Service Act was criticized by Eintalu (2007); based on research conducted by the Government Office (Lagerspetz *et al.*, 2006), one in four officials has not read it at all and only 16% of officials have used it in their work. Requirements such as ‘An official shall be polite’ (Estonia, 1995&2005, Public Service Code of Ethics, clause 17) seem pointless in this age of officials.

One of the most significant findings to emerge from this study is that there is an extremely weak representation of technological and social innovation as well as holistic system thinking of sustainability in the legal acts regulating the activities of the public sector. It was also shown that although the acts of strategic tasks support sustainable development, there is no integration of these principles in the acts of everyday reporting and motivation of officials.

Many authors argue that the need for an increasing role of public authorities in the strategies of promotion and use of these practices is ever more pressing (McNabb *et al.*, 2010; Franzoni, 2009; Štreimikienė and Pušinitė, 2009; Raudsepp and Heidmets, 2005). In addition, Raudsepp and Heidmets (2005) maintain that the topic of sustainable development should be included in the curriculum of higher education (in both technical and social science disciplines). Raju (2010) points out that the lack of CSR accounting and reporting leaves no room for feedback apart from auditing, which may prove to be the Achilles heel in the implementation of the concept of CSR. The results of this case study provide additional evidence with respect to these findings.

Additionally, the author's brief analysis of the action theory of Talcott Parsons indicates that Parsons' AGIL scheme can be interpreted as a model of sustainable development. Based on several sustainability indicators and Parsons' AGIL scheme, a content model describing sustainability orientation within the bodies of legal acts was designed. Hence, this paper has given an account of and the reasons for the widespread use of Parsons' AGIL scheme in future sustainability studies as well as for more in-depth surveys of his works<sup>1</sup>.

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<sup>1</sup> For example, in the view of Habermas (1987), Parsons' AGIL scheme is 'without parallel in its level of abstraction and differentiation, its social theoretical scope and systematic quality... No theory of society can be taken seriously today if it does not at least situate itself with respect to Parsons' (p.199). Additionally, Fox *et al.* (2005) claim (p.3):

The action frame of reference was proposed as a synthesis of core premises and categories that, Parsons argued, are fundamental to all sociological understanding. He did not suggest that the frame of reference was complete or that it constituted a precise theory. Rather, he justified it as a well-balanced framework of basic concepts essential to the future development of more technical theory.

Here the words of Robinson *et al.* can be reiterated: that 'for organized human society, sustainability can never be said to be completely achieved' and that 'we can usually say more

There is no data on such studies in Estonia or in other countries focused on the sustainability orientation of the legal framework of the management of public organizations, although there are several studies devoted to the assessment of the effectiveness of particular legal acts in certain issues of sustainability (see for example Dernbach and Mintz, 2011; Brown, 2009; Ziegler, 2009). Thus, this paper aspires to originality in its topic. As there is no data about papers presenting such content models, this paper also aspires to originality in its modelling. Moreover, as Parsons' theory has been criticized as being too abstract to be used constructively in empirical research (see for example Michaels, 2006; Gerhardt, 2002) this paper refutes such claims.

The limitation of the paper is connected to its content model-making. Namely, since content analysis always includes subjective aspects, there is no absolute truth in making such models.

## References

1. Adams, C.A. and Larrinaga-González, C. (2009) Engaging with organizations in pursuit of improved sustainability accounting and performance, *Accounting, Auditing & Accountability Journal*, 20 (3), 333-355.
2. Adelle, C. and Pallemerts, M. (2010) *Sustainable development indicators. An overview of relevant Framework Programme funded research and identification of further needs in view of EU and international activities*. Brussels, European Commission, Directorate-General for Research.

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about what is not sustainable than what is sustainable' (Robinson *et al.*, 1990, cited in Riddell, 2004).

3. Alange, S. and Steiber, A. (2009) The board's role in sustaining major organizational change: an empirical analysis of three change programs, *International Journal of Quality and Service Sciences*, 1 (3), 280-293.
4. Appelrouth, S. and Edles, L. D. (2008) *Classical and contemporary sociological theory: text and readings*. Pine Forge Press, an Imprint of Sage Publications, Inc.
5. Becker, G. (1964) *Human Capital*. University of Chicago Press: Chicago.
6. Benn, S. (2007) New processes of governance: cases for deliberative decision making? *Managerial Law*, 49 (5/6), 196-205.
7. Berkhout, T. (2005) Corporate gains: Corporate social responsibility can be the strategic engine for long-term corporate profits and responsible social development. *Alternatives Journal*, 31(1), 15–18.
8. Biart, M. (2002) Social sustainability as part of the social agenda of the European community. In: Ritt, T. (ed.) *Soziale Nachhaltigkeit: Von der Umweltpolitik zur Nachhaltigkeit?* Arbeiterkammer, Wien, p. 5–10.
9. Brown, R. (2009) Legal incoherence and the extra-constitutional law of regulatory takings: The Canadian experience. *International Journal of Law in the Built Environment*, 1 (3), 179 - 193
10. Carroll, A.B. (1991) The pyramid of corporate social responsibility: toward the moral management of organizational stakeholders. *Business Horizons*, 34(4), 39–48.
11. CEMAT (2003) Ljubljana declaration. Available from:
12. <http://www.dgotdu.pt/cemat/site%20CEMAT/LjubljanaDeclaration.pdf> [Accessed 4th June 2011].
13. Chen, A.J.W. *et al.* (2008) Information systems and ecological sustainability. *Journal of Systems and Information Technology*, 10 (3), 186-201.
14. Chua, A.Y.K. (2009) The dark side of successful knowledge management initiatives. *Journal of Knowledge Management*, 13 (4), 32 – 40.
15. Coleman, J. (1990) *Foundations of Social Theory*. Cambridge, Mass: Harvard University Press.
16. Commission of the European Communities (2001) *Green Paper: Promoting a European Framework for Corporate Social Responsibility*. Available from:

17. [http://eur-lex.europa.eu/LexUriServ/site/en/com/2001/com2001\\_0366en01.pdf](http://eur-lex.europa.eu/LexUriServ/site/en/com/2001/com2001_0366en01.pdf) [Accessed 4th June 2011].
18. Commission of the European Communities (2009) *Review of the European Union Strategy for Sustainable Development*. Available from: [http://ec.europa.eu/sustainable/docs/com\\_2009\\_400\\_en.pdf](http://ec.europa.eu/sustainable/docs/com_2009_400_en.pdf) [Accessed 4th June 2011].
19. Crane, A. and Matten, D. (2004) *Business Ethics*. Oxford University Press, Oxford.
20. Dernbach, J.C. and Mintz, J.A. (2011) Environmental Laws and Sustainability: An Introduction. *Sustainability*, 3, 531-540.
21. Doppelt, B. (2010) *Leading Change toward Sustainability*. 2nd ed., Greenleaf Publishing, Sheffield .
22. Eintalu, J. (2007) Law and ethics: The case of Public Service Code of Ethics. *Akadeemia*, 10, 2120 – 2132.
23. Estonia (1993 & 2005) *Local Government Organization Act*. Tallinn. Available from: <http://www.legaltext.ee/text/en/X2009K6.htm> [Accessed 4th June 2011].
24. Estonia (1995 &2005) *Public Service Act*. Tallinn. Available from: <http://www.legaltext.ee/et/andmebaas/tekst.asp?loc=text&dok=X0002K9&keel=en&pg=1&ptyyp=RT&tyyp=X&query=avaliku+teenistuse> [Accessed 4th June 2011].
25. Estonia (2002) *Churches and Congregations Act*. Available from:
26. <http://www.legaltext.ee/et/andmebaas/tekst.asp?loc=text&dok=X60025K2&keel=en&pg=1&ptyyp=RT&tyyp=X&query=kirik> [Accessed 4th June 2011].
27. Estonia (2005) *Estonian National Strategy on Sustainable Development Sustainable Estonia 21*. Tallinn. Available from:
28. [http://www.envir.ee/orb.aw/class=file/action=preview/id=166311/SE21\\_eng\\_web.pdf](http://www.envir.ee/orb.aw/class=file/action=preview/id=166311/SE21_eng_web.pdf) [Accessed 4th June 2011].
29. Estonia (2010) *Official Statistics Act*. Tallinn. Available from:
30. <http://www.legaltext.ee/et/andmebaas/tekst.asp?loc=text&dok=XXXXX42&keel=en&pg=1&ptyyp=RT&tyyp=X&query=statistika> [Accessed 4th June 2011].
31. Evan, W. M. (ed.) (1980) *The Sociology of Law. A Social-Structural Perspective*. New York: The Free Press.

32. Fox, R. C. *et al.* (2005) *After Parsons. A Theory of Social Action for the Twenty-First Century*. Russel Sage Foundation, New York.
33. Franzoni, S. (2009) Sustainability through CSR national public policies: the public procurement. In: *Proceedings of the 22nd EBEN Annual Conference*. Athens, Greece, 1-20.
34. Fukushima, M. and Shiratory, H. (2008) Do Minorities Matter?: Inequality and Inequity in Public Secondary Education in Maryland. *Interdisciplinary Information Sciences*, 14 (2), 177–182.
35. Geertshuis, S. (2009) Improving decision making for sustainability: a case study from New Zealand. *International Journal of Sustainability in Higher Education*, 10 (4), 379 – 389.
36. Georghiou, L. *et al.* (2009) *Gearing European research towards sustainability. RD4SD exercise*. Brussels, European Commission, Directorate-General for Research.
37. Gerhardt, U. (2002) *Talcott Parsons: an Intellectual Biography*. Cambridge University Press.
38. Ginter, J. *et al.* (1998) *Use of Social Information in the Law-Making Process of Parliaments: a Comparative Study*. Tallinn, Riigikogu Chancellery. Available from:
39. [http://www.riigikogu.ee/msi\\_arhiiv/tell4002.html](http://www.riigikogu.ee/msi_arhiiv/tell4002.html) [Accessed 4th June 2011].
40. Grootaert, C. (1998) Social capital: the missing link? *Social Capital Initiative Working Paper*, 3, 1-34.
41. Habermas, J. (1987) *Theory of Communicative Action*. Boston, Beacon Press.
42. Habermas, J. (1996) *Between Facts and Norms. Contributions to a Discourse Theory of Law and Democracy*. Cambridge, Mass.: The MIT Press.
43. Heidmets, M. (2004) Teadmistepõhine ühiskond, teadmistepõhine riigivalitsemine. *Riigikogu Toimetised*, 10, 11-17.
44. Heisig, P. (2009) Harmonisation of knowledge management – comparing 160 KM frameworks around the globe. *Journal of Knowledge Management*, 13 (4), 4 – 31.
45. Hoexter, M. (2006) *The Concept of Sustainability: Internal Diversity and Points of Conflicts*. Available from:

- [http://www.futurelab.net/blogs/marketing-strategy-innovation/2006/10/the\\_concept\\_of\\_sustainability.html](http://www.futurelab.net/blogs/marketing-strategy-innovation/2006/10/the_concept_of_sustainability.html) [Accessed 4th June 2011].
46. Huse, M. (2005) Accountability and Creating Accountability: A Framework for Exploring Behavioural Perspectives of Corporate Governance. *British Journal of Management*, 16 (S1), 65-79.
  47. Jeanrenaud, S. (2007) *The Future isn't what it used to be*. Gland: IUCN. Available from: [http://cmsdata.iucn.org/downloads/the\\_future\\_isn\\_t\\_what\\_it\\_used\\_to\\_be\\_2007\\_4.pdf](http://cmsdata.iucn.org/downloads/the_future_isn_t_what_it_used_to_be_2007_4.pdf) [Accessed 4th June 2011].
  48. Kadak, T. (2008) Difficulties in implementation of efficient PMS. In Alver, J. (ed.) *Business analysis, accounting, taxes and auditing: Proceedings of the conference of the Tallinn University*, Tallinn University of Technology Press, Tallinn, 47-49.
  49. Kadak, T. (2011) *Creation of a Supportive Model for Designing and Improving the Performance Management System of an Organisation. Case studies*. Dissertation of the degree of Doctor of Philosophy in Business Administration. Tallinn University of Technology Press, Tallinn.
  50. Kaevats, Ü. (2004) "Säästev Eesti 21" - teadmistepõhise Eesti tuumideestik. *Riigikogu Toimetised*, 4, 40-46.
  51. Kaplan, R. S. and Norton, D.P. (1996) *The Balanced Scorecard: Translating strategy into action*. Boston: Harvard Business School Press.
  52. Käärrik, H. (1998) *Sotsioloogilise informatsiooni õigusloomes kasutamisega seonduvate sotsiaalõiguslike teooriate ning vastavate empiiriliste uurimuste üldistav analüüs*. Tartu. Available from: [http://www.riigikogu.ee/msi\\_arhiiv/kaarrik.html](http://www.riigikogu.ee/msi_arhiiv/kaarrik.html) [Accessed 4th June 2011].
  53. Käärrik, H.(2000), Õigussotsioloogia ja õigusloome. *Riigikogu Toimetised*, 20, 125-138.
  54. Keeley, B. (2007) *Human Capital. How what you know shapes your life*. OECD Publications, Paris.
  55. Kleine, A. and von Hauff, M. (2009) Sustainability-driven implementation of corporate social responsibility: application of the

- integrative sustainability triangel. *Journal of Business Ethics*, 85, 517-534.
56. Kochan, T. (2003) Restoring Trust in American Corporations: Addressing the Root Causes. *Journal of Management and Governance*, 7, 223–231.
  57. Lacy, P. *et al.* (2009), The challenge of integrating sustainability into talent and organization strategies: investing in the knowledge, skills and attitudes to achieve high performance. *Corporate Governance*, 9 (4), 484 – 494.
  58. Lagerspetz, M. *et al.* (2006) *Rollid ja hoiakud avalikus teenistuses*. The Government Office, Tallinn.
  59. Lauristin, M. (2006) Jätksuutlikkuse poliitiline mõõde. *Riigikogu Toimetised*, 14, 9–18.
  60. Lauristin, M. (2011) Demokraatia võti on kodanikuühiskonna käes. *Postimees*, March 14 2011, p.12.
  61. Lauristin, M. and E. Terk, E. (2009) Human development and social risks in Estonia in the context of the economic crisis. In: Tiit, E.-M. *et al.* (eds.), *Estonian Human Development Report 2008*, Eesti Ekspressi Kirjastuse AS, Tallinn, 153-157.
  62. Littig, B. and Grießler, E. (2005) Social sustainability: a catchword between political pragmatism and social theory. *Int. J. Sustainable Development*, 8 (1/2), 65–79.
  63. Lönnqvist, A. *et al.* (2009) Using intellectual capital management for facilitating organizational change. *Journal of Intellectual Capital*, 10 (4), 559 – 572.
  64. McCallum, S. and O'Connell, D. (2009) Social capital and leadership development: Building stronger leadership through enhanced relational skills. *Leadership & Organization Development Journal*, 30 (2), 152 – 166.
  65. McElroy, M. *et al.* (2006) Rethinking Social Capital Theory: A Knowledge Management Perspective. *Journal of Knowledge Management*, 10 (5): 124-126.
  66. McNabb, D. E. *et al.* (2010) The Evolution of Public Trust and Social Responsibility in the Baltics. *EBS Review*, 27, 22-37.

67. Michaels, R. (2006) The Functional Method of Comparative Law. In Reimann, M. and Zimmermann, R. (eds.) *The Oxford Handbook of Comparative Law*, Oxford University Press, 339-382.
68. Nejati, M. *et al.* (2010) Putting sustainability at the core of knowledge management performance evaluation system. *Journal of Organizational Knowledge Management*, 2010,1-13.
69. Parsons, T. (1949) *The Structure of Social Action*. Glencoe: Free Press
70. Parsons, T. (1951) *The Social System*. Glencoe: Free Press
71. Parsons, T. (1962) The Law and Social Control. In Evan, Ed.V. (ed.) *The Law and Sociology*. Glencoe: The Free Press
72. Parsons, T. and Smelser, N.J. (1956) *Economy and Society*. New York: Free Press.
73. Parsons, T. and Shils, E.A. (1962) *Toward a General Theory of Action*. Harvard University Press, USA.
74. Pratchett, L. (1998) Technological Bias in an Information Age: ICT Policy Making in Local Government. In: Snellen, I. and van de Donk, W. (eds.) *Public Administration in an Information Age, A Handbook*, IOS Press: Amsterdam, 207–219.
75. Putnam R. (2000) *Bowling Alone: The Collapse and Revival of American Community*. Simon and Schuster: New York.
76. Raju, O. (2011) Ökoloogia ja majandus – pro ja contra. In: Värnik, R. (ed.), *Proceedings of the Annual Conference of the Estonian Economic Association*, Narva, Estonia, 1-15.
77. Raudsepp, M. and Heidmets, M. (2005) Sustainability as a regulative idea and norm of behavior: social and psychological aspects. In Leal Filho, W. (ed.) *Handbook of sustainability research*, Frankfurt, Peter Lang Europäischer Verlag der Wissenschaften, 205 – 234.
78. Riddell, R. (2004) *Sustainable urban planning: tipping the balance*. Blackwell Publishing, Cornwall, UK.
79. Rokkan, S. (1965) Zur Entwicklungssoziologischen Analyse von Parteiensystemen: Anmerkungen für ein Hypothetisches Modell. *Kölner Zeitschrift für Soziologie und Sozialpsychologie*, 17 (3), 675-702.
80. Roostalu, L. and Kadak, T. (2011) Which Values and Which Accountability: an Historical Case Study of the Estonian Local Government. *China-USA Business Review*, 10 (11), 1-23.

81. Roostalu, L. and Pihelgas, S. (2011) Controlling and Corporate Social Responsibility: a Comparative Study of German and Estonian Controlling. *Chinese Business Review*, 10 (9), 1-15.
82. Quiroz-Onate, D. and Aitken, M. (2007) Business and human rights: a critical assessment of the notion of CSR and measurement. *Journal of International Trade Law and Policy*, 6(2), 79-90.
83. Schiff, D. (1981) N.S. Timasheff's Sociology of Law. *The Modern Law Review*, 44(4), 400-421.
84. Schultz, T.W. (1961) Investment in Human Capital. *The American Economic Review*, 1 (2), 1-17.
85. Searcy, C. (2009) Setting a course in corporate sustainability performance measurement. *Measuring Business Excellence*, 13 (3), 49-57.
86. Shiratori, H. (1994) Theoretical Foundation of Sub-Culture-Based Politics: Reconsidering Early Works of Stein Rokkan. *J. Behav. Soc. Sci.*, 3: 78–89.
87. Shum, P.K. and Yam, S.L. (2010) Ethics and Law: Guiding the Invisible Hand to Correct Corporate Social Responsibility Externalities. *Journal of Business Ethics*, 98 (4), 549-571.
88. Smith, P.A.C. and Sharicz, C. (2011) The shift needed for sustainability. *The Learning Organization*, 18 (1), 73 – 86.
89. Steger, U. *et al.* (2007) The economic foundations of corporate sustainability. *Corporate Governance*, 7 (2), 162-177.
90. Šlaus, I. and Jacobs, G. (2011) Human Capital and Sustainability. *Sustainability*, 3, 97-154.
91. Štreimikienė, D. and Pušinaitė, R. (2009) The Role of Public Sector in Corporate Social Responsibility Development in Lithuania. *Ekonomika*, 86, 55-67.
92. The GRI web page (*i.a.*). Available from: <http://www.globalreporting.org/AboutGRI/>[Accessed 4th June 2011].
93. Trevino, A.J. (ed.) (2001) *Talcott Parsons Today*. Rowman and Littlefield Publishers, Inc, Lanham, Boulder, New York, Oxford
94. Trevino, A.J. (ed.) (2009) *Talcott Parsons on law and the legal system*. Cambridge Scholars Publishing.

95. Website of the Ministry of Justice (i.a.). Available from: <http://www.just.ce/23295> [Accessed 4th June 2011].
96. Zack, M. *et al.* (2009) Knowledge management and organizational performance: an exploratory analysis. *Journal of Knowledge Management*, 13 (6), 392 – 409.
97. Ziegler, Ed. H. (2009) The case for megapolitan growth management in the twenty-first century: Regional urban planning and sustainable development in the USA. *International Journal of Law in the Built Environment*, 1 (2), 105 – 129.

## **Appendix**

**Table 2. Sustainability content model**

Classification	ACT	Economy	Nature	Society	Culture	Stakeholders	Religious system	Local->Global	Ethics	Measurable targets	Technological innovation	Social innovation	Total sum for each act	Total performance for each act
A-1	European Charter of Local Self-Governments	0,5	0,5	0,5	0,5	0,5		1			0,5	4	36%	
A-2	Local Government Organisation Act	1	1	1	1	0,5	0,5	0,5	0,5			6	55%	
A-3	The Constitution of the Republic of Estonia	1	1	1	1	0,5	0,5	0,5				5,5	50%	
A-4	Territory of Estonia Administrative Division Act	1	0,5	0,5	0,5	0,5	0,5		0,5			4	36%	
A-5	Promotion of Local Government Merger Act	1	0,5	0,5		0,5			0,5			3	27%	
A-6	Local Government Associations Act	1	0,5	0,5	0,5							2,5	23%	
A-7	Local Government Council Election Act	0,5		0,5		0,5		0,5	0,5			2,5	23%	
A-8	Databases Act	0,5	0,5	0,5		0,5		0,5	0,5	0,5		3,5	32%	
A-9	Exclusion of Cultural and Social Assets from Bankruptcy Estate Act	0,5		1	1	0,5	0,5	0,5				4	36%	
A-10	System of security measures for information systems	0,5		0,5		1			0,5	1	0,5	4	36%	
A-11	Response to Memoranda and Requests for Explanations Act	0,5		1		0,5		0,5	0,5			3	27%	
G-1	Foreign Relations Act	0,5	0,5	0,5	0,5	1	0,5	1	0,5	0,5	0,5	5,5	50%	
G-2	Act on Sustainable Development	1	1			0,5		1				3,5	32%	
G-3	National Development Plan of the Sustainable Estonia 21	1	1	1	1	1	1	1	1	1	1	11	100%	
G-4	Planning Act	0,5	1	0,5	0,5	0,5	0,5	0,5	0,5			4,5	41%	
G-5	Public Information Act	0,5	0,5	1		0,5		0,5		0,5	0,5	4	36%	
G-6	National Development Plan for Raising Competitiveness of Estonia	1	1	1	1	0,5	0,5	1		1		8	73%	
G-7	State Budget Act 2011-2014	1	1	1	1		0,5	0,5		1	0,5	6,5	59%	
G-8	Estonian Environmental Strategy 2030	0,5	1	0,5	0,5	0,5	0,5	1	0,5	1	0,5	6,5	59%	
G-9	Organisation of Research and Development Act	1	0,5	0,5	1	0,5	0,5	0,5		0,5	1	7	64%	
G-10	Public Procurement Act	1	1	0,5	0,5	0,5	0,5		0,5	0,5		5	45%	
I-1	Accounting Act	1	0,5	0,5				0,5	0,5	0,5		3,5	32%	
I-2	State Budget Act	1	0,5	0,5				0,5	0,5	0,5		2,5	23%	
I-3	Rural Municipality and City Budgets Act	1	0,5	0,5								2	18%	
I-4	Current Reporting Requirement for Unities of Local Governments	1								0,5		1,5	14%	
I-5	Financial Management Act for Local Governments	1	0,5	0,5	0,5			0,5		0,5		3,5	32%	
I-6	Official Statistics Act	1	1	1	1		0,5	0,5		1	0,5	7,5	68%	
I-7	State Audit Office Act	1	0,5	0,5	0,5			0,5	0,5			3,5	32%	
L-1	Public Service Act	0,5		0,5					0,5	0,5		2	18%	
L-2	Anti-corruption Act	0,5		0,5					0,5	0,5		2	18%	
L-3	Bar Association Act	0,5		0,5	0,5	0,5		0,5	1	0,5		5	45%	
L-4	Authorised Public Accountants Act	1		0,5		0,5			1	0,5		4	36%	
L-5	Churches and Congregations Act	0,5		1	1	0,5	0,5		1			4,5	41%	
	<b>Total sum for each indicator</b>	26	16,5	20,5	13	11	7	11,5	11	11,5	7,5	4,5	140	39%
	<b>Total performance for each indicator (%)</b>	79%	50%	62%	39%	33%	21%	35%	33%	35%	23%	14%	39%	

# The Application of a Strategic Analysis in Student Support Services in Greek Higher Academic Institutions: The Case of Career Services Offices

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The economic recession mentioned in the Greek society has a profound impact on educational institutions. During the last decade, Greeks' higher academic institutions are forced for new changes and challenges where there is an apparent need "to be more efficient with less resources" and thus to adopt more innovative strategies for their future operation. Moreover recent trends in the Greek labour market where there is a tremendous increase in the number of the unemployed young graduates has significantly impacted the demands made on the graduates' support services provided from the academic institutions.

Graduates and student support services such as those provided by Career Services Offices of Greek Higher institutions, generally cover a broad spectrum of service areas, however they provide fewer overall services than that provided from the respective

offices of foreign academic institutions. The existing operation of Career Services Offices in Higher Academic Institutions and their future operation irrespective of the type of the Academic Institution (Universities or Technological Educational Institutions), should be based on a careful consideration of the new challenges and the new labour trends observed in the Greek economic environment.

Career Services Offices of academic institutions should become initiators in reinforcing the future of their graduates. Both the operation and the strategies of the career offices must be reformed to ensure that their services are able to meet the needs of the graduates' students in the modern economic environment. In order to do so requires, among other things, a careful examination of not only the internal environment of the academic institutions but also their external environment (Brodhead, 1991).

The present paper provides a deep analysis of the internal and the external environment of the higher educational institutions' career services offices and suggests that by means of reformation and enhancement of the guidance provided for the graduates, so as to improve the effectiveness of the Career Services Offices in the Greek higher academic institutions.

The analytical method of SWOT analysis is applied on the basis of identifying the advantages, "repairing" the disadvantages, take advantage of the opportunities and eliminating the potential threats. Based on the conclusion provided from the achieved analysis, a basic framework for the future and the viability of Career Services Offices is set up (MA Hong-yan, HE De-liang, 2007).

We ground our analysis both on the national and the international literature on governance and management, focusing on student support services. The case study of University of Thessaly clearly provides some evidence why Career Services Offices in Greek educational System should re-adjust the content of their operation, identifying an integrated approach for proposing some ways to effectively utilize the institution in

order to be enhanced the provision of alternative career services and strengthen institutional relationships.

**Keywords: Strategic analysis, Career Services Offices, Higher Education**

## **1. Introduction**

The current environment of the labor market as it has been formulated in the modern Greek economic society has a profound impact on Higher Educational Institutions' (HEI's) overall operation. During the last decade all the basic parts and the active members of the Greek modern society (including HEI's) are forced for significant changes. Recent trends occurred to the labor market together with the dramatic recession mentioned in the entrepreneurship landscape have significantly impacted on the overall operation of the Career Services Offices (CSO).

Although Career Services Offices of Universities and Technological Educational Institutions (TEI's) generally cover a broad spectrum of career intensive service areas, still provide fewer overall career/employment services than that provided from CSO of foreign academic organizations. However according the recent history of their operation in Greek community, both Higher Educational Institutions in general, and Career Services Offices particularly, do not provide clear data evidence when it comes to become active in terms of effective strategy formulation and strategic planning (Bishop, 1995). Especially in the case of the Greek CSO as it has been indicated from their brief history of operation, academic executives often seem not to be familiarized with the changes occurred in the provision of the career services and the changes occurred in the external environment that is operating.

The provision of existing employment services and those planned for the future should be based on a careful consideration of both the internal and external environment of CSO. Academics should adopt vital role initially in evaluating the environment of their institution and secondly in shaping and planning the future of their institutions through

the development of number of strategies carefully designed to meet the enhanced employment needs of the graduates in their modern life.

In order to do so, there is an apparent need for a careful analysis not only of the internal -institutional- environment of CSO but also their external (general) environment (Balamuralikrishna and Dugger, 1995). Operating among serious fiscal limitations, CSO's of HEI might benefit by adopting strategic planning initiatives where the current academic "business" environment is carefully examined.

The most suitable framework for such environmental analysis is the business tool of SWOT Analysis (Strengths, Weaknesses, Opportunities and Threats), although a "managerial" oriented tool frequently used for non-business applications, however capable enough to provide clear evidence concerning basic aspects of the modern changeable educational landscape. The SWOT Analysis should conclude to significant conclusions concerning the strategic planning of CSO and their overall future operation and volatility. Nowadays where the cash "inflows" are extremely limited the strategic planning will assist CSO to realign in new strategic directions that respond to the constantly changing and challenging environment. The purpose of the present study is to demonstrate how SWOT analysis can be used by HEI's support services in order to analyze and initiate both the new fundamental status and the services offerings in the new academic environment. In order to do so, we attempt to apply this environmental analysis in a CSO of a Greek regional university. Specifically, the Career Services Office of University of Thessaly (UTH) in its new operation adopted a strategic planning process where as the need for environmental analysis became obvious, SWOT analysis emerged as one of the key contributors to this strategic process.

The present study also provides a twofold purpose of (a) providing clear evidence of the current situation of CSO in the case of one regional institution, while (b) evolving the strategic planning approach for beneficial application of the SWOT analysis to other CSO in the Greek institutions, and across time (Gable, Lee, Kwahk, and Green, 2007).

## **2. The Institutional Context of Career Services Offices in Greece**

The existence of Career Services Offices in Greek academic society is relatively new given that are operating since 1993. Actually, the CSO of Universities and Technological Education Institutes in Greek educational system were established in order to address the needs of the graduate students of the respective education establishments. Specifically, during this period Higher Academic Institutions attempted to become more concerned about career development services and the psychological needs of their students/graduates. However due to the fact that CSO framework has been developed in an academic environmental status characterized by its financial restrictions, many CSO's were actually "shrunked" only in limited career guidance and information about career management.

The fundamental aspect of CSO was initially introduced in Greece in early 1990's when a limited number of Offices launched in a pilot phase within the framework of operational program: "Linkage of Universities and Technological Educational Institutes with Companies" and was supported by the First Community Support Framework and the Hellenic Ministry of Labor. Under the Second Community Support Framework (1994-1999) in all Hellenic Universities and Technological Educational Institutes (TEI's), Career Services Offices were established and supported by the Hellenic Ministry of Education (Klimopoulos et al 2001).

During their initial period of operation, graduates/users of CSO not only had the opportunity of a certain counseling support by specified counselors in issues of educational and professional choices, but also had the opportunity to search for information concerning both educational and occupational issues with the appropriate assistance of an expert. Particularly, in some cases CSO phased criticism by a small proportion of graduate students. However, shortly most of them represented themselves as institutional bodies that act between the academic and the business "society" attempting to adopt their first initiatives of cooperation with the external business environment. In a second phase of operation financially supported from the 3rd Support Program, the planned actions of CSO proposed from the previous framework has been completed and expended as well.

CSO attempted to take advantage from the experience gained from their previous operation as a result of the cooperation actions implemented with the various institutions and businesses organizations. In this framework the main objective of CSO still remain the development of enhanced linkages and cooperation between academic institutions and business organizations with mutual benefits for all the stakeholders. (Samantzis et al 2011). For many years CSO's where acting mainly as passive "receptors" of career requests attempting to convince their users that the existing career services are appropriate for them rather than exploring and satisfying users' real employment needs as it has been formulated after the transformation of the labor market.

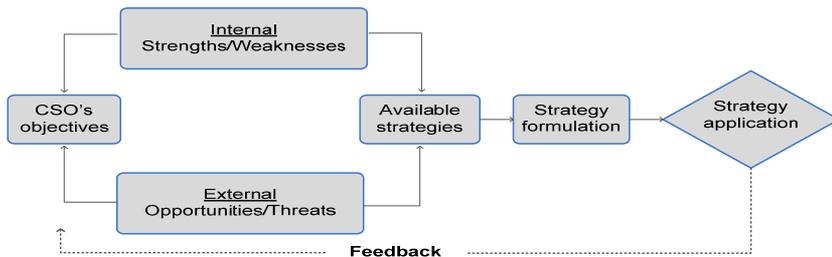
As it can be assumed, unlike in their first operation where Career Services Offices have failed to promote their career services due to the fact that they were considered as the natural places for the graduates, nowadays they are under pressure to justify their current operation and their future volatility through the provision of high quality employment services carefully designed to meet the needs and the requirements of their users (Kavulya, 2004).

Subsequently, the concept of Career Services Offices in the Greek educational landscape has been developed under unfavorable circumstances mainly due to the liquidity limitations, making the strategic planning and particularly the environmental analysis not only necessary but even more challenging for their future viability. Although the importance of strategic planning in CSO (the majority has included a strategic plan in their scheduled activities) has been strongly emphasized diachronically, actually the majority of the CSO actually resisted to undertake such strategic initiatives in a rather practical base. Nonetheless there is an apparent need to consider some creative strategic actions that might provide significant informational input both for the CSO's and the institutions that they serve.

### **3. The SWOT Analysis as the initial step towards strategy formulation**

Johnson and Scholes (1989) describe the SWOT Analysis as a comprehensive identification of the key issues from an analysis of the business environment and the strategic capability of the organization. Simply, it can be interpreted as the examination of an organization's *Strengths* and *Weaknesses* (internal environment) and its *Opportunities* and *Threats* (external environment). This strategic tool can provide clear evidence whether or not the strengths and weaknesses are capable enough to meet the changes taking place in the general environment. In addition, it can be utilized to examine whether there are opportunities to exploit the core competences of the organization.

An appropriate application of SWOT analysis will provide clear evidence of CSO's current situation respectively to the overall academic environment. An overall picture of the external environment (comprised of threats and opportunities) together with careful examination of the internal environment (determined by strengths and weaknesses) will provide the first, initial significant input for the successful strategic planning formulation (Figure 1).



**Figure 1. The Strategic Planning Process for Career Services Offices**

Specifically, this attempted application of SWOT analysis should conclude to a process of scanning the CSO's operational (business) environment for threats and opportunities and the CSO's organizational environment, analyzing CSO's strengths and weaknesses as it is briefly illustrated in the Table 1 (Wehrich, 1982).

It is important to mention that SWOT can be utilized not only by one individual organization but also can be adopted as group of various common oriented organizations and therefore the following adopted analysis can be implemented for a number of different Career Services Offices for multiple purposes. In this latter occasion, group SWOT analysis can provide significant conclusions characterized by objectivity, optimization and validity, extremely valuable for strategy planning and policy formulation extremely significant in the educational sector (Glass, 1991).

INTERNAL ENVIRONMENT		
	Strengths	Weaknesses
	Determination and list of CSO's capabilities and competences. Relevant data can be extracted from CSO's "customers", final users (including both internal and external final users). 1..... 2..... .....	Identification of CSO's "weak" points not only from academics' point of view and from external "client" base (including not only graduates but enterprises as well). 1..... 2..... .....
EXTERNAL ENVIRONMENT	Opportunities	Threats
	Identification of all the possible opportunities that can assist CSO's current operation and future viability. 1..... 2..... .....	Determination of all the possible bad and unfavorable "scenarios" that the educational management team cannot predict but still has to be well prepared to face them. 1..... 2..... .....

**Table 1. SWOT Analysis Framework for Career Services Offices**

In the broader educational context there are some basic areas that might present sources of strengths, weaknesses, opportunities and threats and can provide a general "toolkit" for consideration when establishing strategy planning for educational organizations and are indicatively listed in the Table 2. (Lee et al, 2000).

Strengths	Weaknesses
Management and administrative issues Faculty contribution Staff competencies Strategy planning Financial Resources Infrastructure Range of career services Other?	
Opportunities	Threats
Target groups Government policies Technology applications Stakeholder needs Strategic cooperation between institutions Other?	

**Table 2. Informational Data for SWOT Analysis in the Broader Educational Context**

#### **4. SWOT Analysis of the Career Services Office of University of Thessaly**

The next part of the present study is focused on the case of the Career Services Office of University of Thessaly and its experience of integrating SWOT analysis to provide its current situation in the new changeable environment of the Greek educational sector. The objective of this analysis is to examine and to determine the main factors that are affecting the operation of the CSO while at the same time to provide significant data about the operation of the career services offices in Higher Educational Institutions in the general context. We anticipate that our findings would reveal changes both in the operation of CSO and the provision of the related career services over time, attempting to explore important strategic oriented aspects not highlighted so far.

In order to conduct the SWOT analysis for the CSO of University of Thessaly the necessary data were collected through group discussions with different stakeholders

such as the rectorate board and faculty of UTH, structured interview with the scientific coordinator of CSO and through a questionnaire send to a number of users (graduate students) using the online survey system, Survey Monkey<sup>®</sup> (<http://www.surveymonkey.com>).

Based on these sources of data, the CSO's management (both faculty and top management) examines its current internal and external environmental factors taking the future viability under consideration. As a result a SWOT for the CSO of University of Thessaly is being presented in the Table 3. The information gathered is combined and presented where some issues of particular interest are further discussed in the following chapter.

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• Dedicated staff</li> <li>• Diversified career/employment services</li> <li>• Serve graduates from other institutions</li> <li>• An intensive web based operation</li> <li>• New management (scientific coordinator), more flexible and more "market" oriented</li> <li>• Strategic cooperation with other organizations</li> </ul>	<ul style="list-style-type: none"> <li>• Inadequate financial resources</li> <li>• Low rate of awareness in business stakeholders</li> <li>• Weak "brand name" in the academic society</li> <li>• Low level of linkage between the industrial sector of the region</li> <li>• Location disadvantages (new CSO's location is considered as inconvenient by graduates and students)</li> <li>• "Weak" faculty contribution</li> <li>• No clear institutional strategy direction</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>• Expansion of career services to meet broader range of graduates employment needs</li> <li>• Networking synergies with other CSOs</li> <li>• Increase collaboration and outreach with a variety of vital players</li> </ul>	<ul style="list-style-type: none"> <li>• Economic recession and business vulnerability</li> <li>• Unfavorable government policies</li> <li>• High unemployment rate</li> <li>• Changing employers' career needs (e.g.internships)</li> <li>• Acquisitions of Greek academic institutions</li> <li>• Competition from regional CSOs (e.g.TEI)</li> </ul>

**Table 3. SWOT analysis for CSO of University of Thessaly**

#### ***4.1. Internal Analysis***

Given the current situation of CSO of University of Thessaly (UTH) there are some important issues to consider not only for the Office itself but also for the overall context of CSO in Greek HEI and their future viability.

The strongest point that reveals from the extracted data and the responses is that CSO staff is very experienced, dedicated with a high morale, providing high degree of professionalism and supportive guidance to the students. However, academic and institutional decision makers need to be concerned about their ability to retain their experienced staff and personnel in CSO's, since although Career Centers seem to very attractive for experienced counselors, economists, IT experts, etc, actually the weakness of the economic dependence only on the European contribution constitute major reason for abandoning the career counseling work (Bishop, 1995). The result is that for significant time period there might be no staff members to represent all subject areas of career services provision.

Although in many CSO of HEI significant efforts have been made to provide alternative career and employment services for both the internal (e.g. graduates) and the external (e.g. employers) users, only few manage to "escape" from the conventional provision of the traditional career services as it has been tailored and planned at the beginning of CSO's initial operation. However CSO of UTH recognized the increased demands for enhanced career services and moving towards to this direction adopted new, alternative career services for their users such as young entrepreneurship initiatives and opportunities for international work placements.

When graduates users of UTH's CSO were asked whether they were familiarized for the existence and the importance of the CSO in their campus, a significant proportion of the respondents replied negatively while a very small number consider Career Office as a service that should take advantage of it only during their final semester when it comes apparent the emergence of a successful job placement. This "weak" perception of CSO's operation is based on the obsolete conception of CSO's as the single – operated job vacancies offices planned to provide job announcements for the graduates. Therefore, it becomes of high importance for Career Offices to promote and "market", their core activities and services in the entire campus establishing a more

academic, educational intensive perspective rather than that of considering Career Offices as employment agents organizations. Interviews with UTH's faculty agreed that CSO's of UTH in order to enhance its "poor" awareness and weak usage of their services need to aggressively market CSO's offered services to both university students and decision makers with the view of enhancing the CSO' overall perception. In the meantime, CSO need to increase its importance by focusing to the information requirements and the special needs of the various users in the academic community. As student / graduates career needs have been readjusted and as the local community has realized that a future career is not just a simple issue of "finding a job" but rather a sequence of various job placements for a long time period, CSO of University of Thessaly together with the rest of the career centers in the Greek HEI's should integrate the provision of the employment services (College Placement Council, 1991).

#### ***4.2. External Analysis***

From the data collected from an extensive number of business organizations and potential employers whether they will need to establish active cooperation with CSO (either to promote job vacancies or to participate in Career Fairs within the university structure), the overwhelming responses were really disappointing. Never before in the modern Greek environment, business and entrepreneurship sectors have been so negatively affected. Most of the companies independently of their size and their geographical area of operation actually struggle to survive in the business market adopting the "cut sizing" solution by flattering their organizations in terms of human resources. "Ad – hoc" hiring and "internships" are becoming as the most welcoming techniques in terms of staff attraction (Rayman, 1993). This current trend in the labor market imposes even greater demands than ever before on the content and the quality of the services provided from the CSO in order to prepare graduates with extended career development competences and skills.

Interviews with faculty management and heads of UTH's institution included for the purposes of the present study indicate the emergence of the role that networking can play in the effective management of HEI's CSO. There is a general acceptance that Greek CSO in the face of limited funding need to adopt aggressive networking initiatives. It becomes of high importance for CSO not only to provide their users with traditional data and conventional services but also to provide a context for the

enhancement of marketing awareness (Vinson, 2011). Establishing a network with other national and international CSO's of HEI to determine best and good practices and share significant data might be very extremely interesting for the future operation of CSO. Such networking efforts seem to be very important in order both the faculty administrators and the experienced staff to be aware of the practices and the problems that occur in other career centers, providing by this way a basis for evaluating their own services and adjusting strategic planning procedures.

Unfavorable state policies should have significant limitations for universities and Career Offices as well. According the current state intentions, it is very likely that academic organizations will go a period of constant rightsizing and of course of a period of huge uncertainty as to what extent they will be affected. Therefore those who are responsible for the existence and the viability of the Career Services Offices will have to keep informed for all these influences mentioned at national and regional level and in what terms their current operation needs to be modified.

## **5. Conclusions**

Both the educational and the labor market landscape in Greece have faced (and still facing) dramatic changes that impose the readjustment of CSO's current and future operation meeting the needs and the requirement of the modern socioeconomic environment. Therefore strategic initiatives should be adopted in order to help Career Offices effectively adjust to the new requirements of the changing environment and the new issues in the administration and the management of Career Services Offices in the Greer higher academic institutions. The SWOT Analysis technique fills that need in part and also provides an initial strategic analysis to support further consideration towards effective strategic planning. Through the application of SWOT analysis in the Career Services Office of University of Thessaly significant issues have been revealed where serious consideration must be given to all of them. The constant economic recession that Greek economy has been and will continue to be undergoing together with the subsequent funding and institutional limitations constitute the major obstacles for the effective operation of CSO in Greece. However, significant opportunities are offered merely through networking strategies that will contribute to the institutional

stabilization of Career Services Offices in the Greek educational system. Similar strategies should be adopted in order to “boost” the shift from the traditional operation of the Career Centers (restricted from the existence or not of the European Operational Funding Programs) to a more integrated approach where contemporary Career Services Offices will be able to serve the enhanced needs of their target groups by offering diversified, value added employment services and are staffed by experienced personnel.

In order to extract even more beneficial conclusions, SWOT analysis needs to be alternatively utilized. During the passage of time, where both economic and social changes are presented, an updated SWOT analysis needs to be repeated supplemented with informational input from different Career Services Offices both at national and international level. Adopted in a more holistic approach, SWOT analysis can provide a framework upon which effective strategy formulation can be developed for the viable future of the Career Offices in the new demanding educational framework.

## References

1. Bishop, J. (1995) Emerging administrative strategies for college and university counseling centers. *Journal of Counseling and Development*, 74, 33-38.
2. Balamuralikrishna, R. and Dugger, J. (1995) SWOT analysis: A management tool for initiating new programs in vocational schools. *Journal of Vocational and Technical Education*, 12.
3. College Placement Council (1991) *Career Planning and Placement Survey*. Bethlehem, Pa.: College Placement Council, 1991.
4. Gable GG, Lee J, Kwahk K, Green P, (2007) Administrative Placement of the Information Systems Academic Discipline: A Comparative SWOT Analysis, *Communications of the Association for Information Systems* p137-165
5. Glass, N. M. (1991) *Pro-active management: How to improve your management performance*. East Brunswick, NJ: Nichols Publishing.

6. Johnson, G. and Scholes K. (1989) *Exploring corporate strategy*. New York: Prentice Hall.
7. Kavulya, J. (2004) Marketing of library services: a case study of selected university libraries in Kenya. *Library Management*, Vol. 25 Iss: 3, pp.118 – 126.
8. Klimopoulos, S., Papadourakis, G. K., and Antoniou S. (2001) Assessment and future outlook of the career offices of the Hellenic TEIs. *Proceedings of 2ndt NHIE*, September, Milos, Greece.
9. Lee, S.F., Lo, K.K., Leung, R.F., Ko, A.S.O. (2000) Strategy formulation framework for vocational education: integrating SWOT analysis, balanced scorecard, QFD methodology and MBNQA education criteria. *Managerial Auditing Journal*, Vol.15 No.8, pp 407-23.
10. MA Hong-yan, HE De-liang (2007) SWOT Analysis on the Development Strategy of Higher Vocational Colleges. *Journal of Xi'an University of Architecture & Technology*, Social Sciences Edition, -02.
11. Rayman, J. R. (1993) Contemporary career services: Theory defines practice. *New Directions for Student Services*, 1993: 3–22. doi: 10.1002/ss.37119936203.
12. Samantzis, C., Sachinidou, N. and Tsiakaras, P. (2011) The Future Role of Higher Education's Career Services Offices (CSO) in Greece: Current Trends and Challenges. *Proceedings of International Technology, Education and Development Conference*, March, Valencia, Spain.
13. Wehrich, H. (1982) The SWOT matrix - A tool for situational analysis. *Long Range Planning*, Vol. 15 No 2.
14. Vinson, B. (2011) The Current Status of Career Services at Colleges and Universities. *Technical Report*, No. 52, LeTourneau University.

# **Determinants of the HRM policies and practices in hotel MNEs: the view from the HR department**

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This study focuses on human resources management practices and policies applied in hotel multi-national enterprises (MNEs), which belong to a thriving and labor-intensive business area within the wider consumer services industry.

In this context, the success of hospitality organizations critically relies on its workforce and its capabilities in terms of dedication to work, commitment, resilience, creativity and attitude. In fact, a distinguishing attribute of such organizations is that the success of a customer service experience is inseparable from the service provider. Hence, for instance, uncontrollably high labor turnover is particularly deleterious to business continuity, efficiency and profitability. As a result, successful workforce management represents an essential pre-requisite to ensure the sustained attainment of organizational goals by hospitality businesses. Still, to date there is limited research work in International Human Resource Management (IHRM) related to hospitality where, theoretically at least, commitment to service excellence on an international scale should prompt hospitality organizations to approach workforce management from a strategic standpoint in order to allow human resource management policies and practices to emerge.

Gaps in the literature concerning IHRM in the hospitality industry have been highlighted by researchers at multiple levels as a result of the incapacity of the hospitality management research community to appropriately determine the confines and scope of its field of research. The resulting poor profile of hospitality research is further exacerbated by the fact that mainstream research concepts mostly drawn from manufacturing are often examined in the context of hospitality, instead of having research centred on the hospitality industry per se while considering its uniqueness as a combination of production and service. Therefore, this thesis is centred on the international hospitality industry and, in particular, evidences of human resource management application by a hospitality MNE. IHRM literature has richly investigated these evidences such as the effects of home and host countries, approach to staffing and the management of expatriates as well as the overarching challenge between standardization and localization across international subsidiaries. Hence, the aim of this study is to assess the determinants of HRM practices in different national contexts within a global luxury hotel chain via an internal survey. Findings will be based on the input provided by HR executives at both headquarters and field levels.

***Purpose:*** This article aims at laying the theoretical grounds to an ensuing research work in the field of HRM applied to the global luxury hotel industry. The review of literature leads to the conclusion that business and context specificities including host country effects, the role of culture and institutions plus globalization pressures affect the application of HRM in practice across countries where a MNE operates.

***Research Methodology/Approach:*** A quantitative survey will be used to examine the approaches and implementation of HRM policies and practices in a global luxury hotel chain.

***Findings:*** Being the hotel group a global organization, the survey will offer useful insight on how people management is occurring in different countries and contexts thus allowing the interpretation of results across locations and economies.

**Originality/value:** To the best of the researcher's knowledge, there has been no empirical study addressing the determinants of HRM applied by an MNE operating in the luxury hospitality industry.

**Practical implications:** This paper aims to enhance understanding of the determinants affecting the implementation of HRM policies and practices across the differing national contexts where the hotel MNE operates.

**Keywords:** HRM determinants; host country effects; role of culture; role of institutions; institutions and industrial relations; parent country effects; globalization effects; luxury hotel industry.

## 1. Overview

This is a study of the determinants of Human Resource Management (HRM) policies in multi-national enterprises (MNEs) in the hospitality industry which analyses the case of a US hotel chain.

Whilst there is an already extensive literature on the determinants of HRM policy in multinationals, this study focuses specifically on hospitality where there is a limited extant literature, yet is global in scope. With regard to the latter, much of the literature on international HRM focuses on comparisons of a limited cross section of countries. In contrast, this single organizational case study encompasses 43 countries. Since it is recognized that there is much heterogeneity in the hospitality industry, and its focus on a premium chain entails limitations, this research allows a very much closer and direct comparison of variations in HRM policy according to locale than would otherwise be the case, within the same organization structure. In other words, it is possible to compare differences between settings within a single and mature organizational context.

Distinguishing features of the hospitality industry are its labour intensive nature, its increasing importance in many national economies, the direct competition between local and multinational players and its status as a main indicator of future trends in terms of business cycle.

### ***1.1 Travel and tourism industry: state of play***

According to the World Travel & Tourism Council, the travel and tourism industry is one of the most important economic sectors of the global economy, as in 2008 it employed over 225 million people around the world and generated 9.6% of global GDP (WTTC, 2009). The World Tourism Organization (WTO, 2001) suggests that the tourism sector has grown from 25 million international tourists in 1950 to 166 million in 1970, 446 million in 1990 to reach a high of 703 million in 2002. After a decline in 2008-2009, 2010 featured a recovery in the international tourism, most notably in developing countries (WTTC, 2011).

### ***1.2 Travel and tourism industry: likely future trends***

It is estimated that over the next ten years (WTTC, 2011), the global travel and tourism economy will increase by 4.3% per year, leading its share of the global economy just above 10%. In terms of jobs creation, the WTTC estimates that 66 million jobs will be added by 2020. While in 2010 the share of total workforce employed by the travel and tourism economy was 8.1% (or 1 in 12.3 jobs), this figure is expected to rise by 2020 to 9.2% of total employment (or 1 in 10.9 jobs). Even by considering the negative effects upon tourism development caused by the 9/11 terrorist attacks, flu disease breakouts, natural calamities, the WTO (2001) trend report estimates that there will be 1.5 billion tourists by 2020.

## **2. Literature review**

## **PART ONE: HRM in multinational enterprises**

To understand the nature of HRM determinants in a hotel MNE requires initially a review of the general literature on the determinants of HRM in MNEs and then move on to the existing literature on hotels. Thus, for the purposes of the research, the landmark Dunning and Lundan (2008) definition of a MNE is adopted, which states that:

“A multinational or transnational enterprise is an enterprise that engages in foreign direct investment (FDI) and owns or, in some way, controls value-added activities in more than one country.” (p.3)

### ***2.1 The four different approaches to managing subsidiaries in MNEs***

Perlmutter (1969) identifies four major approaches to the management of overseas subsidiaries. First, the *ethnocentric* whereby the values, culture and strategic decisions are defined by the expectations of the mother company, thus offering very limited power or autonomy to the subsidiaries overseas which are predominantly managed and controlled by expatriates or former staff at the headquarters. Locals have minimal input on policies and procedures since communication occurs through directives elaborated and issued by HQ. Second, the *polycentric* approach is characterized by a softer approach according to which each international subsidiary is considered as an autonomous business unit, controlled and managed by local managers. Indeed, while key decision-making related to financial and strategic issues is a prerogative of headquarters whereby the key HQ positions are exclusively covered by people from the parent company, local managers are given higher profile tasks which reflect their deeper understanding of local requirements in the areas of marketing, production and human resource management (Mohrman and Worley, 2009). Consequently, subsidiaries are allowed a greater degree of autonomy enabling the maintenance of policies and practices pertaining to employee relations which are aligned with the culture and regulatory framework of the host country. Then, the *regiocentric* approach is characterized by further devolvement by HQ according to which decision making and workforce management is implemented on a regional or geographical basis, but top positions are still held by nationals of the parent company's country. Nevertheless, regional managers maintain enhanced power and autonomy

even if these are limited within the confines of the region where they operate. The last model of attitudes towards management of increasingly globalised companies is represented by the *geocentric* approach according to which the management of overseas subsidiaries occurs through a combination of both home country and parent company managers. Within this perspective, it is essential to foster a corporate environment characterized by a seamless exchange of ideas, values, information and best practices. However, as Edwards et al. maintain (2007), in practice there is a contradiction in terms in relation to the attempt to transfer in a standardized fashion an MNE's approach to a particular topic. Thus, the implementation of 'homogenized policies' is an impossible task due to the fact that their transfer may occur in full, partially, or not at all depending on the host country system.

## ***2.2 The Perlmutter strategic framework and hotel organizations***

Relating the above theoretical account to hospitality organizations requires considering the wider tourism industry and its stage of globalization because the former is closely intertwined with the latter (Hjalager, 2007). Even if the hotel industry figures among the most 'global' in the service sector (Littlejohn, 1997) and despite the tendency of markets towards globalization thus pushing hospitality organizations towards the standardization of both products and services, nonetheless there is the imperative to adjust to local demands peculiar to national markets and environments.

The different cultural orientation by organizations illustrated by Perlmutter (1969) reflects on the international hospitality industry at two main levels. As previously mentioned, an ethnocentric orientation assumes that practices developed in the parent country of a MNE are superior to others or not requiring modifications owing to similarities with other countries (Geppert and Clark, 2003). Thus, firstly, recruitment strategies aimed particularly at manning worldwide operations would reveal the kind of international management development program implemented as well as the choice of international manager to be developed. If ethnocentrism and polycentrism represent the extremes of a continuum whereby the former supports the use of home country expatriates in subsidiaries overseas and the latter advocates the employment of local nationals, a geocentric approach stands in the middle as it maintains the use of a mixture of home, host and third country nationals (D'Annunzio-Green, 1997). Consequently, hospitality organizations implementing an ethnocentric approach

develop strategies in the parent country and rely on expatriated nationals to manage local staff in host countries in order to determine the right implementation of organization structure and processes (Edstroem and Galbraith, 1977).

From an opposite standpoint, polycentric organizations maintain a market-driven strategy based on divergence since they assume that products and services need to be customized according to customer segments: thus, emphasis is shifted towards divisional or, even, unit-level managers and the practices they establish (Roper et al., 1997). On the other hand, a geocentric business approach tries to strike a balance between ethnocentrism and polycentrism because it is world oriented and characterized by a *supra national* framework (Perlmutter, 1969). Although this is the case of leading world hotel chains such as Holiday Inn and Hilton according to Nickson (1997), still their worldwide business expansion in their early days by their founders was characterized by the “dissemination of American management and operating techniques” together with the attempt “to diffuse “best practice” techniques of modern hotel management” (p. 187). Last, hospitality organizations applying a regiocentric approach tend to mix geocentrism with polycentrism in an effort to satisfy the opposed needs of standardization and customization. A shining example of this formulation is the implementation by Hilton of the ‘Wa No Kutsurogi’ program (Teare, 1993) to cater to the specific needs of the Japanese traveller thus addressing the demand for customization within a multicultural context (Pullman et al., 2001).

## **2.3 *The determinants of IHRM***

To date, literature has tended to illustrate the determinants of HR policies on MNEs through mainly institutional, cultural or globalization viewpoints and hence the ensuing sections are informed accordingly (Collings et al., 2009; Edwards and Ferner, 2002).

### **2.3.1 *Host country effects***

Host country effects have either been understood from a cross-cultural or an institutionalist starting point. The former approach holds that (Lau and Ngo, 2001; Bartlett and Ghoshal, 1989), owing to a pressure for ‘multi-culturalism’ (Bartlett and Ghoshal, 1989) MNE practices are in line with varying cultural contexts according to national boundaries. The latter, instead, focuses on the role of institutions whereby, as

Kostova and Roth (2002) maintain, businesses operating in the same environment will inexorably end up applying similar practices, thus turning 'isomorphic' with each other.

### 2.3.2 *Parent country effects*

As noted by Granovetter (2005) and Nelson and Sampat (2001), institutions represent key elements shaping economic performance of all social actors, including organizations and their corporate governance. In fact, institutions establish norms that support behavioural conformity throughout any social transaction thus ensuring stability and predictability upon which growth depends. Thus, Ferner and Varul (2000) argue that IHRM is critically affected by the country of origin model of personnel management, which is conditioned by factors within the national business system. Their research outcome is the result of an analysis of the highly structured German institutional framework determining a considerably reactive and administration-centred personnel management approach pressing against the strategic adaptation of a wider IHRM implementation along the lines of the 'Anglo-Saxon' model.

Parent country (ie, country-of-origin) effects represent a category of elements exerting pressures on the way multinationals operate, their organizational culture and, ultimately, their approach to HRM. Thus, MNEs from different home countries apply IHRM in different ways for the very reason that, according to Ferner (1997):

“even the most global of companies remain deeply rooted in the national business systems of their country of origin(...) Even where the home base does not account for the bulk of sales, operations and employment, the home nation is almost always the primary locus of ownership and control” (p. 19).

As illustrated by Chang et al. (2007) the pressures exerted onto a MNE in order to be aligned with home country institutional environments represent 'push forces' (p. 405) and are the result of the MNE degree of embeddedness in its business system (Ferner, 1997). The home country effect can take many forms as demonstrated in numerous studies comparing practices in MNEs from different countries. In particular, nationality of ownership is a critical determinant of MNE business code of conduct and management practices following the comparison of US MNEs as opposed to Japanese

and EU MNEs, for instance. While the former tend to be centralized and standardized in the management of HR, Japanese MNEs are more keen to adapt to the local settings (Ferner, 1997). Also, the fact that MNEs mostly gravitate around their home country (Hejazi, 2007) is demonstrated in their concentration of assets, sales generated as well as the marked tendency to fill key positions at the executive level with parent country nationals (Edwards et al., 2007). The latter, in fact, play a key role in the transfer process of knowledge and management practices as well as the determination of industrial relations policies and practice from headquarters to subsidiaries (Edwards et al., 2007).

### *2.3.3 Globalization and institutional theories*

According to Williamson (1996), an analysis of the world in terms of economic history reveals that globalization forces dramatically intensified since the middle of the nineteenth century and, after an opposite trend between 1914 and 1950, regained pace thus causing fast growth and convergence. The point of view of this author, whereby world economy dynamics demonstrate an unequivocal link between globalization and convergence, expresses an approach supporting the formation of a single and superior form of capitalism within which firms are pressed to compete.

However, according to VOC literature, since both CMEs and LMEs feature respectively a peculiar comparative institutional advantage, these economies will react in differing ways to globalization pressures, thus increasing the divergence between them (King and Wood, 2003; Iversen and Pontusson, 2000). Consequently, by affecting firms and institutions, globalization has the effect of escalating differences between the two kinds of capitalism. In particular, in LMEs firms are supported at the expenses of undermined unions by virtue of their increased exit options, thus allowing for further deregulation to strengthen their competitive advantage (Peters, 2008). The result is that increased deregulation causes the worsening of social tensions in LMEs (Bhavsar and Bhugra, 2008). On the other hand, given that CMEs strategically rely on coordination which is at the basis of competitive advantage of businesses, deregulation is kept in check to prevent the rupture of the balanced relationship among stakeholders, namely unions, employees, firms (Crouch, 1995). Thus, within the setting of a more and more globalized world, the recognition of shared interests by both capital and labour allows CMEs to quench social conflicts and boost solidarity among classes (Crouch and Streeck, 2000).

## **PART TWO: HRM in the hospitality industry**

The hospitality industry, which is intertwined with the wider tourism industry, is one of the largest and most dynamic industrial sectors worldwide. In particular, the hospitality industry is identified with all businesses providing, according to Brotherton (1999):

“a contemporaneous human exchange, which is voluntarily entered into, and designed to enhance the mutual wellbeing of the parties concerned through the provision of accommodation and food or drink.” (p. 168)

The expansion of tourism and hospitality industry worldwide is accompanied by two specific trends: on the one hand, consumers expect more quality and variety in the services and products they purchase while, on the other hand, competition among firms is heated up both nationally and internationally. Consequently, superiority in this industrial sector is attained by businesses which are able to surpass competition in terms of service quality, customer satisfaction and business performance (Augustyn and Ho, 1998). Thus, a key pre-requisite is the implementation of sound HRM practices owing to the fact that hospitality critically depends on successful human interactions (Davidson et al., 2011).

In order to clarify the industrial sector under consideration, there is the need to identify the different business typologies. In fact, hospitality organizations share a most common services framework whereby accommodation is compounded with a number of supporting facilities such as restaurants, shopping arcade, fitness center, hairdresser which can escalate to a very sophisticated range of services depending on the competition and the market addressed (King, 1995). For the purposes of this PhD, emphasis is given to MNEs operating in the luxury segment of the industry, otherwise referred to as ‘global hotel chains’ which offer product-branded services on a standardized global basis (Whitla et al., 2007).

#### **2.4 *IHRM in the luxury hospitality industry MNEs***

Same as occurs in any other industrial sector, hospitality firms do have the strategic option to expand their business operations internationally, or even globally. Contractor and Kundu (1998) found that the 'entry mode' into new markets is determined by country-, environment- and firm-specific variables. According to the researchers, 65.5% of hotel international operations are contracted through non-equity arrangements, such as franchise agreements, management contracts and strategic alliances. Consequently, these arrangements enable hotel organizations with successful and unique service brands to expand globally. Further, a most recent study by Graf (2009) clearly indicates that stock markets react abnormally whenever the entry mode of the hotel chain fits with the specificities of the host country. In particular, the author found that investors react very favourably to new management contracts in developing countries and new franchise agreements in developed countries, also because of the anticipated benefits resulting from the hotel firms' strategic orientation, contractual control and formality of business operations (Yan et al., 2007). Notwithstanding, the successful implementation of HRM policies and practices in overseas subsidiaries depends on the sound interaction between the owners who do the investment and the hotel management company which either runs the business on their behalf through a management contract or allows the hotel to operate under a franchising agreement (Gannon et al., 2010).

For luxury hotel chains, emphasis on quality throughout is of utmost importance and, therefore, HRM plays a strategic role in strengthening this vision within the organization (Maxwell et al., 2004). In 1999 Hilton, for instance, introduced a worldwide customer service quality initiative named 'Equilibrium' which prompted HRM to develop a strategy branded 'Esprit' that encompassed, beyond a successful staffing function, policies and practices targeting specifically the areas of assessment, compensation, benefits, recognition, career tracking and discipline (Maxwell and Lyle, 2002). Other hotel chains, have put HRM at center stage with regards to their business strategy along with marketing and operations as in the case of Accor (Aung, 2000), or, even, have achieved remarkable talent management through the dynamic involvement and support of the hotel General Manager to a critical HR area of responsibility (Yeung, 2006).

Nonetheless, despite the global expansion of luxury hotel chains and the subsequent attempt to globalize the HRM function, a closer examination of local contexts demonstrates the existence of unique challenges pertaining to the political, national and cultural settings, which requires the local hotel HR professional to adapt accordingly (Naama et al., 2008; Costa, 2004; Lu and Chiang, 2003). Indeed, Boxall (1995) argues that differences in workforce capability, labour productivity and employment systems affect the management of human resources which needs to be modified from country to country.

In conclusion, local specificities compel HRM to adjust to the ‘think global, act local’ perspective whereby central offices originate wide-scope HRM policies and procedures and then it falls upon the local hotel HR manager to decide and act the best way they see fit to the local context which, incidentally, they know better than anybody else in the HRM function (Enz, 2009). An example of such an approach is offered by Zuehl and Sherwyn (2001) who contend that, after analyzing employment termination practices in a sample of countries, MNEs may identify common employment termination practices as general guidelines to be considered.

## **PART THREE: Measuring differences in HR practices**

### **3.1 *Operationalization and measurement of HRM in hotel MNEs***

According to Whitley (2000) national business systems are defined by the degrees of ownership and non-ownership coordination as well as variations in practices implemented at firm level in several areas. As mentioned in a previous section, these areas are the degree of cooperation between customers and suppliers and between competitors, the ways in which organization and control are applied, the range of resources and activities implemented through managerial hierarchies, the degree of organizational integration and the long-term interdependence of employers and employees. The last issue represents the ultimate research goal of this PhD aiming to reveal if practice at firm level features a pattern corresponding with particular national institutional contexts and business system archetypes. In fact, the analysis of the bonds that exist between employee and employer indicate the degree according to which genuine power is assigned within the organization (Amable, 2003; Whitley,

2000), the nature of internal corporate governance and the dynamic interplay between power and equity (Hoepner, 2005).

Being HRM in practice at the centre of this research PhD, the analysis is focused on the two core features identified by Whitley (2000). Initially, there is the degree of *employer-employee interdependence*, which comprehends two sub-dimensions: first the willingness of the organization to invest in its people – the degree to which an organization is committed to training and development, and, second, the relative security of tenure enjoyed by employees – the dominant form of contract (e.g. permanent, temporary or fixed term), the frequency of redundancies, the methods used to downsize and the use of outsourced labour. The other feature highlighted by Whitley (2000) concerns the amount of *delegation to employees*. This relates to the extent to which managers are eager to allow employees greater discretion in the performance of tasks, the degree to which employers bargain with employee representatives, as well as mechanisms for involvement and feedback (Marchington et al., 1993). Consequently, these set of indicators are useful in order to test through HR practice comparisons if the application of HRM by an MNE tends to be similar or different across a range of countries (Brewster et al., 2008).

Since the luxury hospitality services at international level is the industry sector under analysis, there is the need to recognise its underlying peculiarity in that MNEs have to be locally present to serve a national market owing to the provision of products and services that are globally standardized to a large extent (Edwards, 2010). It is this very pursue of standardization of work processes by hotel MNEs from a strategic standpoint that affects the way global HR policies are implemented as well as the sharing of practices across subsidiaries determined. In particular, Jones (1998) argues that, by virtue of the fact that hotel chains for business people feature an immediate interaction between the service providers and their customers, these organizations have created standardized operating procedures to ensure product and service consistency across all of its subsidiaries, both in the home and the host countries where it is located. This need for conformity pushes hotel MNEs to develop and implement common workforce management practices across different national contexts. According to Edwards, (2010) hospitality MNEs belong to that category of businesses which are highly visible in the eyes of consumers and therefore it is imperative for them to preserve brand identity and consistency leading to standardization and common HR policies across borders.

### **3.2 *Research needs: identification of gaps in the literature***

The importance of addressing the relatively unexplored field of HRM in the hospitality industry is stressed by Guerrier and Deery (1998), according to whom:

“(...) the hospitality industry does provide a wonderful environment in which to explore some of the current issues in organizational studies and human resource management. It is a global industry and therefore provides an opportunity to compare different management styles and approaches; to examine, for example, East Asian management approaches or the changing management styles in the ex-communist countries of Central and Eastern Europe” (p. 154).

More recently, Lucas and Deery (2004) after examining over 100 papers specialized in human resource management in five leading hospitality journals published from 2002 to 2003, indicate as key area for further research “the conflict between the cultural values of the owners and managers of large global companies and those of the host community” (p. 471).

Consequently, there is the need to provide new insights into the relative impact of host and home country effects on the practice of HRM within its subsidiaries operating worldwide by drawing from Brotherton (1999) according to whom the hospitality industry has to be examined from a wider perspective encompassing cross-national and cross-cultural aspects. In particular, special attention is needed towards the understanding of the interconnection between an MNE, its subsidiaries overseas and HRM practices implemented to host-country nationals thus defining any degree of convergence or divergence (Budhwar and Sparrow, 2002). In this respect, there is the opportunity also to illustrate the possible importing dynamics of practices either from the home country of the MNE or from a host or third country (Jain et al., 1998).

### **3. Research methodology**

#### ***3.1 Research proposition***

The company under consideration is a global de-luxe hotel chain that, for the purpose of safeguarding anonymity, will be referred to as HotelCo. This offers a unique research opportunity to understand the modality as well as the degree of reach and power exerted from the MNE center to the periphery.

The case study organization is a diversified global hospitality group with more than fifty-year history, acting as the owner-manager, franchiser and management company of international deluxe hotels, resorts, and mixed-use real estate developments. The US HotelCo mission is to provide authentic hospitality and its goal is to be recognized as the most preferred brand in each segment it operates while being faithful to a set of core values featured in its culture. In particular, as of March 31, 2011, HotelCo's worldwide portfolio consisted of 451 properties.

Therefore, through the application of a cross-national comparative study, the aim of this PhD is to examine the determinants of HR practices within a MNE operating in the hospitality industry and attain new insights into the relative impact of host and home countries. With the premise that the research aims at surveying a leading global hospitality company operating in 43 countries, the consideration of the totality of national archetypal business systems as enunciated by Whitley (2000) is instrumental in order to group national contexts according to their distinctive type of coordination and control systems. In particular, Whitley's model (2000) includes: fragmented, coordinated-industrial-district, compartmentalized (i.e. 'Anglo-American model'), state-organized, collaborative ('the Rhineland model') and coordinated ('the Japanese model') business systems.

The critical input will be provided by surveying HR managers at the hotel-unit level and in the administration offices of HotelCo. Research goals are multiple, as the wealth of information will enable to draw useful insight in terms of the 'strength' of the HRM system (Bowen and Ostroff, 2004) and organizational commitment (Wright and Kehoe, 2008), for instance.

In the final analysis, using a case study organization that operates globally within the fast growing service sector it is hoped it will enable the exploration of the relationship between corporate guidelines and application of HRM policies and practices to different national contexts, thus contributing to the debate on the nature of HRM in the hotel industry.

### ***3.2 Research questions and objectives***

This PhD aims to answer questions ultimately related with internal corporate governance through the viewpoint of the hospitality HR executives, such as:

- i) How strong is the bond that exists between employees and the MNE firm (employer-employee interdependence)?
- ii) To what extent is power genuinely devolved within the organization (delegation to employees)?

Consequently, having gained an overall insight on how the HR executives perceive the implementation of HRM practices, it is necessary to attain to the following objectives:

- i) To illustrate whether the application of HRM practices of a luxury hotel MNE tends to be similar or different across a range of countries
- ii) To estimate the extent according to which HRM practices across subsidiaries are truly global as a result of a common homogenizing force
- iii) To identify the determinants of HRM policies and practices and establish whether they originate from institutional or cultural pressures, an emerging homogenizing global HRM model, or from the interplay between home and host country forces

The academic contribution of the particular study can be seen in the light of the following dimensions:

- It will give an insight on the application of HRM policies and practices by a luxury hotel MNE across its subsidiaries all the world over and the tension incurred between global integration and local responsiveness or, otherwise, generated by the opposite pressures for internal consistency versus those for local isomorphism;

- Since research on HRM applied in hospitality is limited so far, this work will contribute to further the understanding on HRM characterizing MNEs operating in the luxury sector of the hospitality industry;
- It will provide evidence on the relationship between core HRM directives and their actual implementation depending on the national business systems and the related influence they incur owing to institutional and cultural pressures;
- By exploring the employer-employee interdependence and the delegation to employees, it will shed a light on the extent according to which a leading luxury hospitality MNE operating in a quintessential people business ultimately demonstrates in practice the widespread adage that people are the most important corporate asset (Pfeffer and Veiga, 1999).

### ***3.3 Research instrument for data collection and analysis***

A quantitative survey method will be used to examine the approaches and implementation of HRM policies and practices in a global luxury hotel chain. As Saunders et al., (2003) have pointed out, the quantitative survey “is a popular and common strategy in business and management research”, and surveys enable “easy comparisons and appear to be authoritative” (p. 92).

The survey is a useful tool for analyzing and assessing HR practice and the HR function in a systematic way and will allow the researcher to gather similar data and draw useful conclusions. Information will be sought in order to assess the extent of formal corporate HRM strategy application by subsidiaries drawing from the input of HR department associates located at the headquarters as well as in all of the international properties in EAME (Europe-Africa-middle East), ASPAC (Asia-Pacific) and LATAM (Latin America) that may involve a sample of about 900 respondents. The fact that participants to the survey are Human Resources executives provides a unique insight into the process directly from the management representatives in charge of implementing HRM policies and practices in the field.

Among the several sources considered for the creation of the questionnaire, the landmark work of Whitley (2000) is critical for defining the features of HRM practices related to employer-employee interdependence and delegation to employees as well as

their sub-dimensions. Next, the aspect of transferability of HRM practices across cultures while considering the social, cultural and organizational differences between home and host countries is examined following the typology framework of HRM systems and HRM practices adopted by Bae et al. (1998). In particular, by making use of Hofstede (1993) cultural dimensions, the survey attempts to highlight differences among countries that may result in divergent organizational and administrative practices whereby the gap would be deeper the more culturally apart countries are (Kogut and Singh, 1988). Last, in order to develop measures fitting with dependent variables, useful contribution is obtained from earlier work in IHRM undertaken by Hannon et al. (1995), Lu and Bjorkman (2001) and Rosenzweig and Nohria (1994). These research studies are instrumental in defining the variables related to the most typical aspects of HRM practices, such as HR planning and composition, selection and recruitment, compensation, performance appraisal, training and development, employee participation as well as labor relations.

### ***3.2 Research stages***

The research is split into three stages, whereby the first would be to collect critical information from the top HR executives at headquarter that would inform the development of the questionnaire. The second stage of the research involves piloting the questionnaire to highlight any possible issues or problems that could occur when administering the questionnaire.

Last, stage three is the actual distribution of the questionnaire to both headquarter and subsidiary-based frontline HR management representatives. The need to compare research results from different locations impose the application of a purely quantitative data collection and analysis method.

## **4. Possible findings**

Important findings could occur in relation with the degree of employer-employee interdependence as well as the amount of delegation to employees. Also, as identified in the literature, useful insight will be obtained with regards to the all-

important role of line managers in the sustained implementation of HRM policies and procedures, the extent to which they perceive HR as being important to the organization, as well as the nature of barriers to HRM implementation in general.

Next, HR managers' response will illustrate how they perceive and act upon Company decisions and directives being cascaded by Headquarters; thus the survey may shed light on any possible communication gaps related to local implementation. Being the hotel group a global organization, useful insight will be obtained on the contextual determinants of international human resources management strategy at the subsidiary level. Thus, the survey will allow the interpretation of results according to location and regions, eventually leading to comparisons against what is known from other countries based on practical and academic literature.

## **5. Research limitations**

Although the research is planned to focus on all the properties of the hotel company around the globe, still the sample will be limited to the countries in which it operates. Then, responses are going to be obtained only from the HR professionals exclusively, leaving out of the research process both top management and all other levels of staff. Exactly because this research asks company HR professionals to assess the HRM function, there is the real possibility that results might be biased.

In particular, as representatives of management, HR professionals tend to have a vested interest in projecting in-firm practices positively (Brookes et al., 2005). Furthermore, due to the involvement of HR management exclusively, the researcher will be able to reach only the intended human resource (HR) policies while foregoing the implemented HR practices (Khilji and Wang, 2006). It is recognized that the simultaneous implementation of a survey directed to employees outside HR and at lower hierarchical levels would have possibly shown different perceptions of managerial strategies, employment relationships and HRM practices overall (Brookes et al., 2005).

Despite this single industry analysis has its merits, nonetheless it cannot be easily generalized as opposed to multi-industry studies that provide the opportunity to

facilitate the understanding of issues more broadly. Thus, being this study industry-sector specific, caution is advised in drawing general conclusions.

## References

1. Amable, B. (2003) *The diversity of modern capitalism*. Oxford, Oxford University Press.
2. Augustyn, M. and Ho, S. K. (1998) Service quality and tourism. *Journal of Travel Research*, 37 (1), p. 71-75.
3. Aung, M. (2000) The Accor multinational hotel chain in an emerging market: through the lens of the core competency concept. *The Service Industries Journal*, 20 (3), p. 43-60.
4. Bae, J., et al. (1998) Variations in human resource management in Asian countries: MNC home-country and host-country effects. *The International Journal of Human Resource Management*, 9 (4), p. 653 - 670.
5. Bartlett, C. A. and Ghoshal, S. (1989) *Managing across borders: the transnational solution*. Boston, Harvard Business School Press.
6. Bhavsar, V. and Bhugra, D. (2008) Globalization: mental health and social economic factors. *Global Social Policy*, 8 (3), p. 378-396.
7. Bowen, D. E. and Ostroff, C. (2004) Understanding HRM–firm performance linkages: the role of the "strength" of the HRM system. *Academy of Management Review*, 29 (2), p. 203-221.
8. Boxall, P. (1995) Building the theory of comparative HRM. *Human Resource Management Journal*, 5 (5), p. 5-17.
9. Brewster, C., et al. (2008) Similarity, isomorphism or duality? Recent survey evidence on the Human Resource Management policies of multinational corporations. *British Journal of Management*, 19 (4), p. 320-342.
10. Brookes, M., et al. (2005) Social relations, firms and societies. *International Sociology*, 20 (4), p. 403-426.

11. Brotherton, B. (1999) Towards a definitive view of the nature of hospitality and hospitality management. *International Journal of Contemporary Hospitality Management*, 11 (4), p. 165-173.
12. Budhwar, P. S. and Sparrow, P. R. (2002) An integrative framework for understanding cross-national human resource management practices. *Human Resource Management Review*, 12 (3), p. 377-403.
13. Chang, Y. Y., et al. (2007) HRM strategies and MNCs from emerging economies in the UK. *European Business Review*, 19 (5), p. 404-419.
14. Collings, D. G., et al. (2009) International human resource management. In: Collings, D. G. and Wood, G. (eds.) *Human Resource Management: a critical approach*. New York, Routledge, p. 296-312.
15. Contractor, F. J. and Kundu, S. K. (1998) Modal choice in a world of alliances: analyzing organizational forms in the international hotel sector. *Journal of International Business Studies*, 29 (2), p. 325-357.
16. Costa, J. (2004) The Portuguese tourist sector: key challenges for human resources management. *International Journal of Contemporary Hospitality Management*, 16 (7), p. 402-407.
17. Crouch, C. (1995) Exit or voice: two paradigms for European industrial relations after the Keynesian welfare state. *European Journal of Industrial Relations*, 1 (1), p. 63-81.
18. Crouch, C. and Streeck, W. (2000) Introduction: the future of capitalist diversity. In: Crouch, C. and Streeck, W. (eds.) *Political economy of modern capitalism: mapping convergence and diversity*. Thousand Oaks, CA:, Sage, p. 1-18.
19. D'Annunzio-Green, N. (1997) Developing international managers in the hospitality industry. *International Journal of Contemporary Hospitality Management*, 9 (5/6), p. 199-208.
20. Davidson, M. C. G., et al. (2011) Hospitality HRM: past, present and the future. *International Journal of Contemporary Hospitality Management Volume*, 23 (4), p. 498-516.
21. Dunning, J. H. and Lundan, S. M. (2008) *Multinational enterprises and the global economy*. Cheltenham, Edward Elgar Publishing Ltd.
22. Edstrom, A. and Galbraith, J. R. (1977) Transfer of Managers as a Coordination and Control Strategy in Multinational Organizations. *Administrative Science Quarterly*, 22 (2), p. 248-263.

23. Edwards, T. (2010) The nature of international integration and human resource policies in multinational companies. *Cambridge Journal of Economics* [online]. Available from: <http://cje.oxfordjournals.org/content/early/2010/09/08/cje.beq033.full> [Accessed 24th January 2011]
24. Edwards, T., et al. (2007) Conceptual approaches to the transfer of employment practices in multinational companies: an integrated approach. *Human Resource Management Journal*, 17 (3), p. 201-217.
25. Edwards, T. and Ferner, A. (2002) The renewed 'American Challenge': a review of employment practice in US multinationals. *Industrial Relations Journal*, 33 (2), p. 94-111.
- 26.ENZ, C. A. (2009) Human Resource Management: a troubling issue for the global hotel industry *Cornell Hospitality Quarterly*, 50 (4), p. 578-583.
27. Ferner, A. (1997) Country of origin effects and HRM in multinational companies. *Human Resource Management Journal*, 7 (1), p. 19-37.
28. Ferner, A. and Varul, M. Z. (2000) Internationalisation and the personnel function in German multinationals. *Human Resource Management Journal*, 10 (3), p. 79-96.
29. Gannon, J., et al. (2010) The impact of hotel management contracting on IHRM practices: understanding the bricks and brains split. *International Journal of Contemporary Hospitality Management*, 22 (5), p. 638-658.
30. Geppert, M. and Clark, E. (2003) Knowledge and learning in transnational ventures: an actor-centred approach. *Management Decision*, 41 (5), p. 433-442.
31. Graf, N. S. (2009) Stock market reactions to entry mode choices of multinational hotel firms. *International Journal of Hospitality Management*, 28 (2), p. 236-244.
32. Granovetter, M. (2005) The impact of social structure on economic outcomes. *The Journal of Economic Perspectives*, 19 (1), p. 33-50.
33. Guerrier, Y. and Deery, M. (1998) Research in hospitality human resource management and organizational behaviour. *International Journal of Hospitality Management*, 17 (2), p. 145-160.

34. Hannon, J. M., et al. (1995) International Human Resource Strategy and Its Determinants: The Case of Subsidiaries in Taiwan. *Journal of International Business Studies*, 26 (3), p. 531-554.
35. Hejazi, W. (2007) Reconsidering the concentration of US MNE activity: Is it global, regional or national? *Management International Review*, 47 (1), p. 5-27.
36. Hjalager, A.-M. (2007) Stages in the economic globalization of tourism. *Annals of Tourism Research*, 34 (2), p. 437-457.
37. Hoepner, M. (2005) What connects industrial relations and corporate governance? Explaining institutional complementarity. *Socio-Economic Review*, 3 (2), p. 331-358.
38. Hofstede, G. (1993) Cultural constraints in management theories. *Academy of Management Executive*, 7 (1), p. 81-94.
39. Iversen, T. and Pontusson, J. (2000) Comparative political economy: a Northern European perspective. In: Iversen, T., et al. (eds.) *Unions, employers, and central banks: macroeconomic coordination and institutional change in social market economies*. New York, Cambridge University Press, p. 1-37.
40. Jain, H. C., et al. (1998) Multinational corporations, human resource management and host-country nationals. *The International Journal of Human Resource Management*, 9 (4), p. 553 - 566.
41. Jones, C., et al. (1998) Not part of the family? The limits to managing the corporate way in international hotel chains. *International Journal of Human Resource Management*, 9 (6), p. 1048-63.
42. Khilji, S. E. and Wang, X. (2006) 'Intended' and 'implemented' HRM: the missing linchpin in strategic human resource management research. *International Journal of Human Resource Management*, 17 (7), p. 1171-1189.
43. King, C. A. (1995) What is hospitality? *International Journal of Hospitality Management*, 14 (3-4), p. 219-234.
44. King, D. and Wood, S. (2003) The political economy of Neoliberalism: Britain and the United States in the 1980s. In: Kitschelt, H., et al. (eds.) *Continuity and change in contemporary capitalism*. Cambridge, Cambridge University Press, p. 371-397.

45. Kogut, B. and Singh, H. (1988) The effect of national culture on the choice of entry mode. *Journal of International Business Studies*, 19 (3), p. 411-432.
46. Kostova, T. and Roth, K. (2002) Adoption of an organizational practice by subsidiaries of multinational corporations: institutional and relational effects. *The Academy of Management Journal*, 45 (1), p. 215-233.
47. Lau, C.-M. and Ngo, H.-Y. (2001) Organization development and firm performance: a comparison of multinational and local firms. *Journal of International Business Studies*, 32 (1), p. 95-114.
48. Littlejohn, D. (1997) Internationalization in hotels: current aspects and developments. *International Journal of Contemporary Hospitality Management*, 9 (5/6), p. 187-198.
49. Lu, Y. and Bjorkman, I. (2001) HRM practices in China-Western joint ventures: MNC standardization versus localization. *The International Journal of Human Resource Management*, 8 (5), p. 614 - 628.
50. Lu, Z. and Chiang, D. (2003) Strategic issues faced by Ontario hotels. *International Journal of Contemporary Hospitality Management*, 15 (6), p. 343-345.
51. Lucas, R. and Deery, M. (2004) Significant developments and emerging issues in human resource management. *International Journal of Hospitality Management*, 23 (5), p. 459-472.
52. Marchington, M., et al. (1993) The Influence of managerial relations on waves of employee involvement. *British Journal of Industrial Relations*, 31 (4), p. 553-576.
53. Maxwell, G. and Lyle, G. (2002) Strategic HRM and business performance in the Hilton Group. *International Journal of Contemporary Hospitality Management*, 14 (5), p. 251-252.
54. Maxwell, G., et al. (2004) Quality service in the international hotel sector: A catalyst for strategic human resource development? *Journal of European Industrial Training*, 28 (2/3/4), p. 159-182.
55. Mohrman, S. A. and Worley, C. G. (2009) Dealing with rough times: a capabilities development approach to surviving and thriving. *Human Resource Management*, 48 (3), p. 433-445.
56. Naama, A., et al. (2008) Human resource development issues for the hotel sector in Lybia: a government perspective. *International Journal of Tourism Research*, 10 (5), p. 481-492.

57. Nelson, R. R. and Sampat, B. N. (2001) Making sense of institutions as a factor shaping economic performance. *Journal of Economic Behavior & Organization*, 44 p. 31–54.
58. Nickson, D. (1997) Research: “colorful stories” or historical insight?-A review of the auto/biographies of Charles Forte, Conrad Hilton, J.W. Marriott and Kemmons Wilson. *Journal of Hospitality & Tourism Research*, 21 (1), p. 179-192.
59. Perlmutter, H. V. (1969) The tortuous evolution of the multinational corporation. *Columbia Journal of World Business*, 4 (1), p. 9-18.
60. Peters, J. (2008) Labour market deregulation and the decline of labour power in North America and Western Europe. *Policy and Society*, 27 (1), p. 83-98.
61. Pfeffer, J. and Veiga, J. F. (1999) Putting people first for organizational success. *The Academy of Management Executive*, 13 (2), p. 37-48
62. Pullman, M. E., et al. (2001) Service design and operations strategy formulation in multicultural markets. *Journal of Operations Management*, 19 (2), p. 239-254.
63. Roper, A., et al. (1997) The multi-cultural management of international hotel groups. *International Journal of Hospitality Management*, 16 (2), p. 147-159.
64. Rosenzweig, P. M. and Nohria, N. (1994) Influences on human resource management practices in multinational corporations. *Journal of International Business Studies*, 25 (2), p. 229-251.
65. Saunders, M., et al. (2003) *Research methods for business students*. Harlow, Pearson Education.
66. Teare, R. (1993) Designing a contemporary hotel service culture. *International Journal of Service Industry Management*, 4 (2), p. 63–73.
67. Whitla, P., et al. (2007) Global strategies in the international hotel industry. *International Journal of Hospitality Management*, 26 (4), p. 777-792.
68. Whitley, R. (2000) *Divergent capitalisms: the social structuring and change of business systems*. Oxford, Oxford University Press.
69. Williamson, J. G. (1996) Globalization, convergence, and history. *The Journal of Economic History*, 56 (02), p. 277-306.

70. Wright, P. M. and Kehoe, R. R. (2008) Human resource practices and organizational commitment: a deeper examination. *Asia Pacific Journal of Human Resources*, 46 (1), p. 6-20.
71. WTO (2001) *Tourism 2020 Vision: global forecasts and profiles of market segments*. Madrid, WTO.
72. WTTC (2009) Travel & tourism economic impact: executive summary. [online]. Available from: [http://www.wttc.org/bin/pdf/original\\_pdf\\_file/exec\\_summary\\_2009.pdf](http://www.wttc.org/bin/pdf/original_pdf_file/exec_summary_2009.pdf) [Accessed 07/07/2010].
73. WTTC (2011) World -key facts at a glance. [online]. Available from: [http://www.wttc.org/eng/Tourism\\_Research/Economic\\_Research/](http://www.wttc.org/eng/Tourism_Research/Economic_Research/) [Accessed 17/02/2011].
74. Yan, Y., et al. (2007) Vertical integration of corporate management in international firms: implementation of HRM and the asset specificities of firms in China. *International Journal of Human Resource Management*, 18 (5), p. 788-807.
75. Yeung, A. (2006) Setting people up for success: how the Portman Ritz-Carlton hotel gets the best from its people. *Human Resource Management*, 45 (2), p. 267-275.
76. Zuehl, J. J. and Sherwyn, D. S. (2001) Identifying uniform employment termination practices for multinational employers. *Cornell Hotel and Restaurant Administration Quarterly*, 42 (5), p. 72-85.

# Enterprise 2.0 and Professional Development

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Enterprise 2.0 is the state of the art in collaborative software modelled after Web 2.0 techniques and patterns. Web 2.0 or social computing refers to the range of digital applications (those for blogging, podcasting, collaborative content, social networking, multimedia sharing, social tagging and social gaming) that enable interaction, collaboration and knowledge sharing between users. This emergent set of technologies encourages innovation, facilitates the capture of tacit data and knowledge, and creates a spirit of collaboration due to its participatory and social nature. Enterprise 2.0 enables more flexible work models and community building, it represents the evolution and maturation of best practices for collaboration and knowledge management. The knowledge is recognized as crucial resource and its efficient management determines sustainability and survival of the businesses.

**Purpose:** The paper purpose is to discuss the nowadays key enterprise 2.0 issues as a potential to foster professional development of people. The core concept of competence development unifies all the approaches. In human resource management, knowledge management, training, and regular education the concept of competence is used increasingly. The main challenges are the integration of different levels of knowledge resource, learning activities, competence development, and learning networks. Raising the awareness and enabling a lifelong learning perspective and the integration of formal programs with social software, informal learning and community

building in learning networks. One of the main objective is to improve understanding of enterprise 2.0 and linked with it professional development concepts, main characteristics and advantages of the social software components related to it are identified and assessed.

**Research Methodology/Approach:** Our research methodology is based on reviewing the literature to summarise nowadays changes in enterprise 2.0, the origin of enterprise 2.0, classification models, and challenges related to cultural aspects, risks and enterprise 2.0 as a competitive advantage and related competence-based professional development paradigms. Also, the paper discusses the state-of-the-art infrastructures of the Personal Competence Manager and ILIAS for lifelong competence development that stimulate and support individuals, teams and organisations to (further) develop their competences, using all the distributed knowledge resources, learning activities and programmes that are available online.

**Findings:** The paper findings are that potential of web 2.0 technologies is obvious to foster professional development of students & employee. Business organisations and educational institutions need to establish strategies to make this change happen. The paper concludes in discussing open problems and proposing research themes in the area of enterprise 2.0 and professional development.

**Originality/contribution:** This paper gives an outlook of the synergy between the concepts of Enterprise 2.0, knowledge management and the competency-based approach for professional development. It presents scientific research and technological achievements within the framework of the currently running projects of the R&D Laboratory on eLearning Technologies and Standards at the Technical University – Sofia (TU-Sofia), Bulgaria, namely: METASPEED Project (Metadata ExTraction for Automatic SPeCifications of E-Documents) funded by the Bulgarian National Science Fund, 2009, and the research project “Implementation of the Organisational and Technological Infrastructure ILIAS e-Portfolio”, funded by the TU-Sofia R&D Sector.

**Keywords: Social computing applications, Enterprise 2.0, Competence development, Knowledge management**

## **1 Introduction**

### ***1.1 Background and scope***

The amount of data in our world has been exploding (McKinsey Global Institute, 2011). The nature of work is changing. There are more complex work environments full of a mine of information. In conjunction with the Web 2.0 technologies the role of an enterprise is shifting from consuming content and information to creating content and knowledge and being social around information. The business becomes distributed, agile, based on collaborative work environment where the professionals can develop their knowledge, skills and competences. Accordingly, managers must switch from being drivers of people to being drivers of learning.

The term “Enterprise 2.0” is becoming more widely used to describe a collection of organisational and information technology (IT) constructs that help managers better engage employees by enabling flexible work models, knowledge sharing, and competence development. Improved employee engagement, in turn, helps organisations reap productivity and performance benefits that assist in attaining strategic goals. Koper pointed out that “for most companies this question relates to the core of their business how to become innovative and stay competitive. For the employees, the ‘professionals’, this question relates directly to their jobs. People tend to have various different jobs, even in different sectors during their professional career (Koper, 2009). There are a lot of possible formal and informal professional development opportunities that are available, and it’s hard to identify the most appropriate ones, not only for individuals, but for teams, communities and organisations. In the Enterprise 2.0 the knowledge can be efficiently distributed and can be tapped into informal network thereby boost professional development aiming at

assisting, encouraging and enabling professionals to improve their performance and individual potential.

In this paper, we present a conceptual approach to the study of Enterprise 2.0 (E2.0) with emphasis on the social computer applications and tools as well as the interplay between the management of knowledge and learning for effective competence development processes in corporate environment. The paper research question is how companies can benefit from social web 2.0 technologies and tools for management, knowledge management (KM 2.0) and especially for professional development (PD 2.0) which are strongly co-related, bring synergy and affect competitiveness of the Enterprise 2.0 (E 2.0).

## ***1.2 Structure of the paper***

In Section 2, we present general discussion on the E2.0, KM2.0 and PD 2.0. We contrast the difference between 1.0 and 2.0 paradigms. We present a cross point of the E2.0, KM 2.0 and PD 2.0 as an abstract model which can be viewed as a base for the competency development of the professionals in the enterprise. KM, Learning 2.0 and informal communications supported by Web 2.0 tools are presented in the center of the model.

In Section 3 we review the KM process as presented by Nonaka et. al and focus on the professional development and competency management in technology enhanced Enterprise 2.0 environment. We continue with the KM and Quality Management. A four levels management perspective of E2.0 framework is presented; on the top we position the KM. The framework combines technical infrastructure, enabling technologies, Web 2.0 tools & services and E2.0 management.

In Section 4 we continue with EPIQ Business Demonstrator done by the R&D Laboratory on eLearning Technologies and Standards at the TU – Sofia. We outline the TENCompetence Personal Competence Manager Business Demonstrator in an enterprise context. The innovative organisational and technological infrastructure of the EPIQ Business Demonstrator supports top and middle management, various professional communities and individuals for improving the processes of competence development, organisational learning and knowledge management. Also, we figure out

the importance and potentials of the ILIAS e-learning system which can boost the professional learning in industry where the competence management is applied.

In Section 5 (conclusion and future work) we conclude with a discussion on some general issues that are raised by the research work and developed model and which we will attempt to address in the future.

## **2 Enterprise 2.0, Knowledge Management 2.0 & Professional Development 2.0 Concept**

### ***2.1 Enterprise 2.0***

Enterprise 2.0 is the use of emergent social software platforms within companies, or between companies and their partners or customers (McAfee, 2006). Enterprise 2.0 is the state of the art in collaborative software modeled after Web 2.0 techniques and patterns. It is an emergent set of technologies that encourages innovation, facilitates the capture of tacit data, and creates a spirit of collaboration due to its participatory and social nature. In this way organisations become more efficient due to increased sharing and discovery of knowledge, and can maintain competitive advantage by fostering innovation from within.

The basis of the Enterprise is the knowledge of people. Collaboration and KM efforts can help address needs of the informal organisation when these efforts are properly linked to human capital management programs.

In contrast to Enterprise 1.0, Enterprise 2.0 applies diverse technologies: cloud computing inc. software as a service (SaaS); social networking; business intelligence (BI); enterprise search and retrieval (ESR); and open source (OS) application. Table 1 present Enterprise 1.0 and Enterprise 2.0 comparison.

ENTERPRISE 1.0	ENTERPRISE 2.0
Hierarchy Organisation	Flat Organisation
Friction	Ease of Organisation Flow
Bureaucracy	Agility
Inflexibility	Flexibility
IT-driven technology / Lack of user control	User-driven technology
Top down	Bottom up
Centralized	Distributed
Teams are in one building /one time zone	Teams are global
Silos and boundaries	Fuzzy boundaries, open borders
Need to know	Transparency
Information systems are structured and dictated	Information systems are emergent
Taxonomies	Folksonomies
Overly complex	Simple
Closed/ proprietary standards	Open
Scheduled	On Demand
Long time-to-market cycles	Short time-to-market cycles

**Table 1 Enterprise 1.0 vs. Enterprise 2.0**

Major social computing and collaboration building blocks in the Enterprise 2.0 platform are:

- Wikis - are commonly used for collaborative authoring, knowledge base, meeting agendas/minutes, collecting and organizing research
- Blogs - updates, news, customer communication, notification of changes, lessons learned
- Social technologies - social media and social networks allow for community building and the enhanced capturing of internal expertise
- Mashups - personalized combination of data sources, dashboard view, signaling, and monitoring
- Online Communities - collaboration, knowledge exchange
- Social Bookmarking - rapid aggregation of content, identification of top content, and RSS feeds (Simon, 2010).

McAfee (2006) defines the SLATES framework in order to discover the Enterprise 2.0 system architecture functionalities:

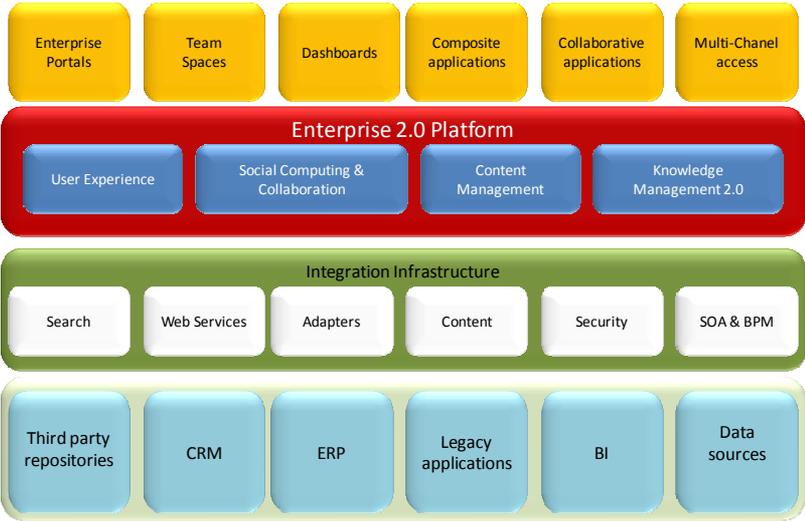
- Search: allowing users to search for other users or content;
- Links: grouping similar users or content together;
- Authoring: including blogs and wikis;
- Tags: allowing users to tag content;
- Extensions: recommendations of users; or content based on profile;
- Signals: allowing people to subscribe to users or content with RSS feeds.

In 2007 Dion Hinchcliffe expanded the list above by adding the following four functions:

- Freeform function: no barriers to authorship (meaning free from a learning curve or from restrictions);
- Network-oriented function, requiring web-addressable content in all cases;
- Social function: stressing transparency (to access), diversity (in content and community members) and openness (to structure);
- Emergence function: requiring the provision of approaches that detect and leverage the collective wisdom of the community.

The Enterprise 2.0 system functionality consists of three general and intertwined principles: managing system and data in a better, more integrated fashion; integrating data to allow for higher-level analytics; enhancing communication among organisations, vendors, suppliers, employees, and customers.

The latest forward-thinking, incorporating Enterprise 2.0 and service-oriented architecture technologies is developed by ORACLE. Unlike most Enterprise 2.0 vendors, this is a large-scale, multinational-ready vision of Enterprise 2.0. (see Figure 1).



**Figure 1 Enterprise 2.0 Framework (adapted from ORACLE)**

Thus 2.0 technology combined with an effective knowledge management makes Enterprise 2.0 knowledge (processes, product profile, customer profile, business rules, regulation rules, etc.):

- Goal oriented (user centric)
- Transparent (compliant)
- Directly useable in context (cross channel)
- Easily and rapidly adjustable (create once, apply everywhere!)
- Easy to share, co-create with and improve (learning loop)

### ***2.3 Knowledge Management 2.0***

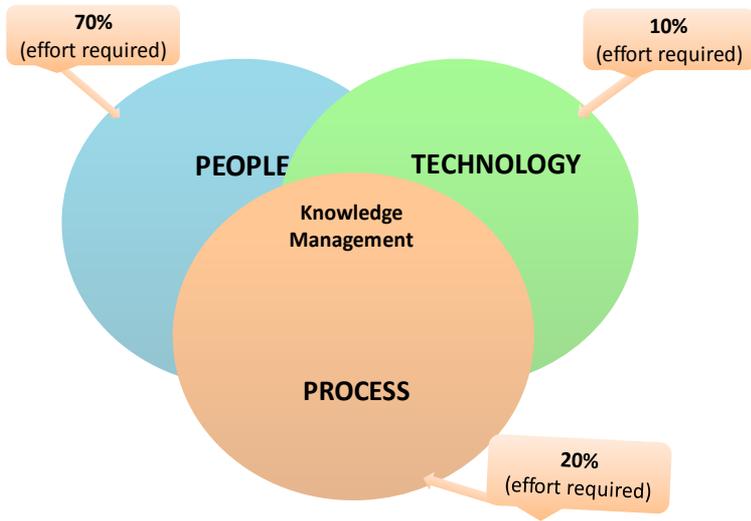
By involving, engaging and empowering people, and by creating a collaborative environment for social 2.0 interactions between those who need to seek knowledge and those who hold the knowledge in the organisation, Web 2.0 facilitates and boosts knowledge creation and sharing.

KM 2.0 comprises a range of strategies and practices used in an organisation to identify, create, represent, distribute, and enable adoption of insights and experiences. A continuous process of acquiring new knowledge and skills based on Web 2.0 relate to one's profession, job responsibilities, or work environment and it is linked to professional development, it plays a key role in maintaining trained, informed, and motivated employees. A key element of a KM concept is a requirement to address People, Process and Technology issues in tandem and not focus on any one element (see Figure 2).

To discuss what KM is about and how to apply it in a given context, is to be shown how to link KM implications to the business model. The idea is to articulate the issues around business terms and not KM by itself. KM should be seen as a set of concepts that could be tailored to meet business needs. KM is not a substitute for a Quality system; it does not replace TQM but helps to achieve the objectives in a smart fashion. It does this by developing a certain mindset in the organisation. It develops a different way of thinking, of working solo and as a team member; it helps to run a business dependent on the drivers and objectives. In time knowledge management will become simply M (management), a way of managing the business.

KM 1.0	KM 2.0
KM is extra work	KM is part of my everyday work
Work is behind closed doors	Work is open and transparent
People directories provide contact information	Social Networking platforms reflect who is doing what with whom
Content is centralised, protected and controlled	Content is distributed freely and uncontrolled
IT chooses the tools I use	Personal choice & selection own tools
Knowledge sharing is database centric	Knowledge sharing is people centric
Knowledge is captured just in case	Knowledge is naturally captured as part of one's work
Best Practices	Stories
Efficiency and productivity	Improved decision making & innovation

Table 2 KM 1.0 vs. KM 2.0



**Figure 2 Knowledge management efforts by components**

For the purposes of this article, the business model used is the one developed by the European Foundation for Quality Management (EFQM) and referred to as the Excellence Model (see Figure 3). The Model, which recognises there are many approaches to achieving sustainable excellence in all aspects of performance, is based on the premise that: Excellent results with respect to Performance, Customers, People and Society are achieved through Leadership driving Policy and Strategy, that is delivered through People, Partnerships and Resources, and Processes. The arrows emphasize the dynamic nature of the Model. They show innovation and learning helping to improve enablers that in turn lead to improved results.

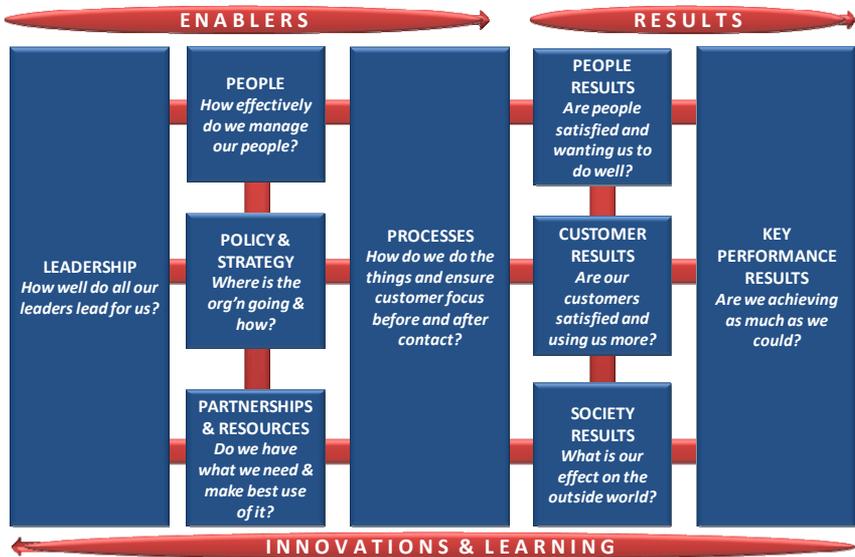


Figure 3 EFQM Model

## 2.4 Professional Development 2.0

Professional development (PD) itself refers to skills and knowledge attained for both personal development and career advancement. PD encompasses all types of facilitated learning opportunities, ranging from college degrees to formal coursework, conferences and informal learning opportunities situated in practice. It has been described as intensive and collaborative, ideally incorporating an evaluative stage. Effective PD programs depends on a mix of processes such as:

- Self-managed growth.
- Professional development plan.

- Collaborative learning.
- Community conversations around "essential questions."
- Principal institutes.
- ePortfolio development.
- District professional development.
- Tailored and packaged external programs

In PD2.0 Web 2.0 incorporate collaborative platforms encouraging and facilitating interaction, and optimizing knowledge management effectiveness. The importance of authenticity in creating one's personal brand and that the proliferation of easily accessible technologies provides the opportunity for anyone to differentiate themselves in their profession. Base on the diversity of knowledge resources PD2.0 support people improve their knowledge and competences. PD2.0 tries to help provide richer meaning and context about values, ethics, and personal conduct, this is a reflection process. The dialogue, particularly through commenting is 2-way and people can interact with experts, publish their thoughts, and share ideas. The difference between PD1.0 and PD 2.0 is presented in Table 3.

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• PD 1.0	• PD 2.0
• Based on Web 1.0	• Based on Web 2.0, the process is dramatically transformed
• PD 1.0 components are closed systems which do not incorporate contact with other professionals	• The PD 2.0 system - Social software has revolutionized online sharing knowledge
• There is not enough scope for communication and collaboration between professionals	• Users, professional contribution is not limited to newsgroups and mailing lists. There is much scope for networking
• Even though tools for collaboration are available, the application in PD is negligible.	• The influence of new practices on the Web 2.0 has resulted in a new array of services
• Communication is mono-directional	• Communication is multi-directional

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• PD 1.0 focus on the Intranet	• PD 2.0 focus on the Intranet, Internet and Extranet
• Distribution of knowledge is linear	• Distribution of knowledge is networked
• Definition of PD goals is related to the enterprise	• Definition of PD goals is done by the person, it is related to the communities of practices
• Measuring of PD success is done by the enterprise	• Measuring of PD success is done by the individual and enterprise, it is a reflection process

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**Table 3 PD 1.0 vs. PD 2.0**

The Web 2.0 tools support informal communications, knowledge sharing and creation. The professional development is viewed as an open system leading to the competence improvement of the professionals in the company.

In respect of this in his book “Learning Network Services for Professional Development” Koper (Koper, 2009) concludes that “ A method of PD will only be efficient when it is as adaptive, and personalised as possible, taking the specific characteristics of the (adult) professional into account. In order to adapt, good assessment and placement procedures should be available on which personalised navigational advice can be based”. Koper also asserts that the direct access to the source of new knowledge and innovative solutions is of key importance for the professionals. The best way to do this is to involve them directly in the innovation and knowledge production itself as part of their job. It is important that learning networks to start from the individual career perspectives and competences and not solely from the perspective of a specific job, company or sector.

### **3 Knowledge Management process & Learning**

Knowledge Management consists of activities focused on the organisation gaining knowledge from its own experience and from the experience of others, and on the

judicious application of that knowledge to fulfill the mission of the organisation. These activities are executed by marrying technology, organisational structures, and cognitive based strategies to raise the yield of existing knowledge and produce new knowledge. According to Nonaka (1994, cited in Naeve, A. et al. 2008), the key to knowledge creation lies in the following four (SECI) modes of knowledge conversion that occur when tacit and explicit knowledge interacts with each other:

- socialisation, which is the process of sharing experiences (tacit knowledge), thereby creating new tacit knowledge
- externalisation, which is the process of articulation and conversion of tacit knowledge into explicit knowledge
- combination, which is the process of restructuring and aggregating explicit knowledge into new explicit knowledge
- internalisation, which is the process of reflecting on and embodying explicit knowledge into tacit knowledge.

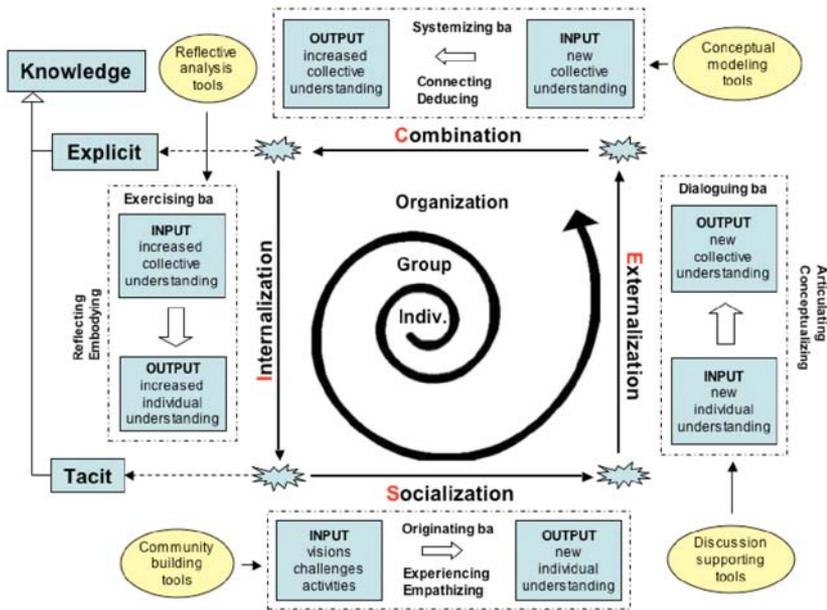
From the 2.0 perspective, we introduce the abstract model which incorporates the Nonaka and Takeuchi knowledge conversion processes in a knowledge creating organisation, supported by Web 2.0 tools and social computing applications (see Figure 4).

Organisational knowledge creation, therefore, should be understood as a spiraling process that organisationally amplifies the knowledge created by individuals and crystallises it as a part of the knowledge network of the organisation. This process takes place within an expanding “community of interaction”, which crosses intra- and inter-organisational levels and boundaries. SECI process is guided by dialectical thinking, which focuses on transcending paradox by creating a synthesis between opposing forces, such as between order and chaos, micro and macro, tacit and explicit, body and mind, emotion and logic, and action and cognition. As pointed out by Nonaka et al. (2000, cited in Naeve, A. et al. 2008), the SECI process cannot be managed in the traditional sense of management, which centers on controlling the flow of information. In contrast, top and middle management take a leadership role by “reading the situation”, as well as leading it, working on all elements of the knowledge-creating process. Leaders provide the knowledge vision, develop and promote the sharing of knowledge assets, create and energise ba, and enable and promote the continuous spiral of knowledge creation.



**Figure 4 Nonaka and Takeuchi knowledge conversion processes in a knowledge creating organization**

According to Naeve, A. et. al especially, crucial to the SECI process (see Figure 5) is the role of knowledge producers, i.e. middle managers who actively interact with others to create knowledge by participating in and leading ba.



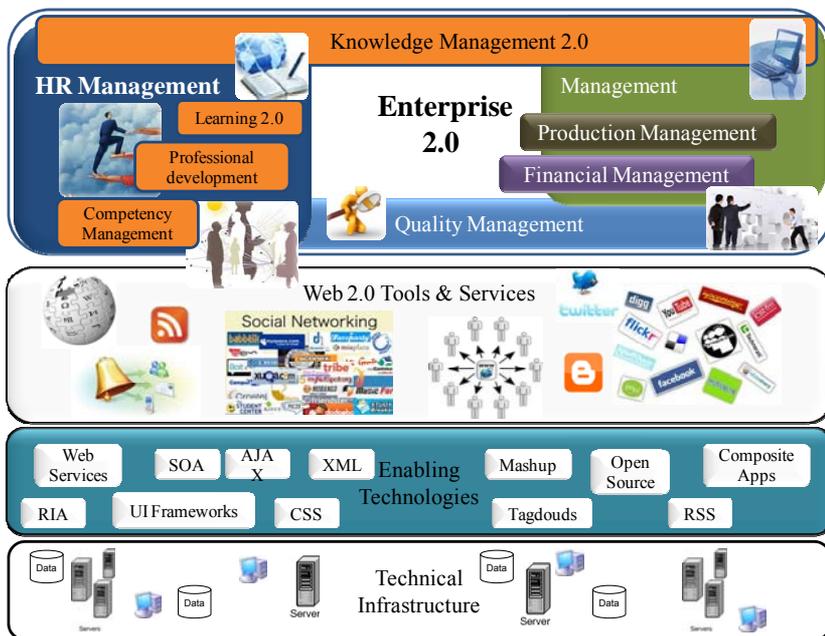
**Figure 5 The SECI process framework: increasing understanding through experiencing, articulating, deducing and reflecting**

Nonaka et al. emphasise that to create knowledge dynamically and continuously, an organisation needs a vision that synchronises it. It is the role of top management to articulate the knowledge vision and communicate it throughout (and outside) the company. The knowledge vision defines what kind of knowledge the company should create and in what domain.

In short, it determines how the organisation and its knowledge base evolve over the long term. The knowledge vision also defines the value system that evaluates, justifies

and determines the quality of the knowledge the company creates (Naeve, A. et al. 2008).

The 2.0 technologies and tools of the different domains can fit together in order to ensure that the professionals improve their performance. Enterprise 2.0 management (see Figure 6) fosters business interaction and provides a personalized learning (informal) experience according to the job domain, situation and context, thus develop competencies.



**Figure 6 Enterprise 2.0 Management framework**

Concerning all these key issues, TENCompetence European Integrated Project set up with the target to integrate different levels and approaches of learning content tools, learning activity tools, competence development programs, and learning networks in a common open source infrastructure to enable and foster lifelong competence development and learning.

In a Learning Network, professionals are facilitated to:

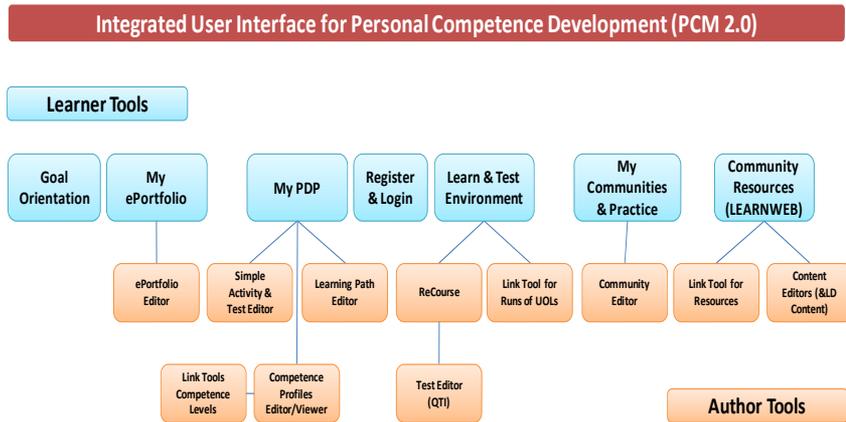
- exchange experience and knowledge;
- collaborate in joint innovations and research;
- offer and get support for further informal, non-formal and formal professional development in the field;
- monitor and identify changes in the field and translate these to changed competence requirements for professionals in the field;
- organise workshops, discussions and conferences;
- to offer support for the assessment of prior learning, including qualifications, certificates and/or diplomas;
- support each other when encountering learning problems;
- use tools and services to register and monitor progress, to create personal development plans, to manage competence profiles and to author learning resources.

TENCompetence Personal Competence Manager (PCM) provide an infrastructure for individuals, communities, and the organisations which enable them to manage the development of competences in complex domains of knowledge; formal and informal education, training, learning and knowledge management (see Figure 7).

## **4 PCM business demonstrator**

Done by the R&D Laboratory on eLearning Technologies and Standards at the TU – Sofia, EPIQ Business Demonstrator’s design considers the company strategic plans and available HR management information (job description, training programmes, etc.). PCM system enables search for and participate in communities related to competence development goals, to create, search for and edit competence development profiles, to create, search for and edit competence development plans; to create, share

and find competence development activities and resources; and to carry out competence development activities.

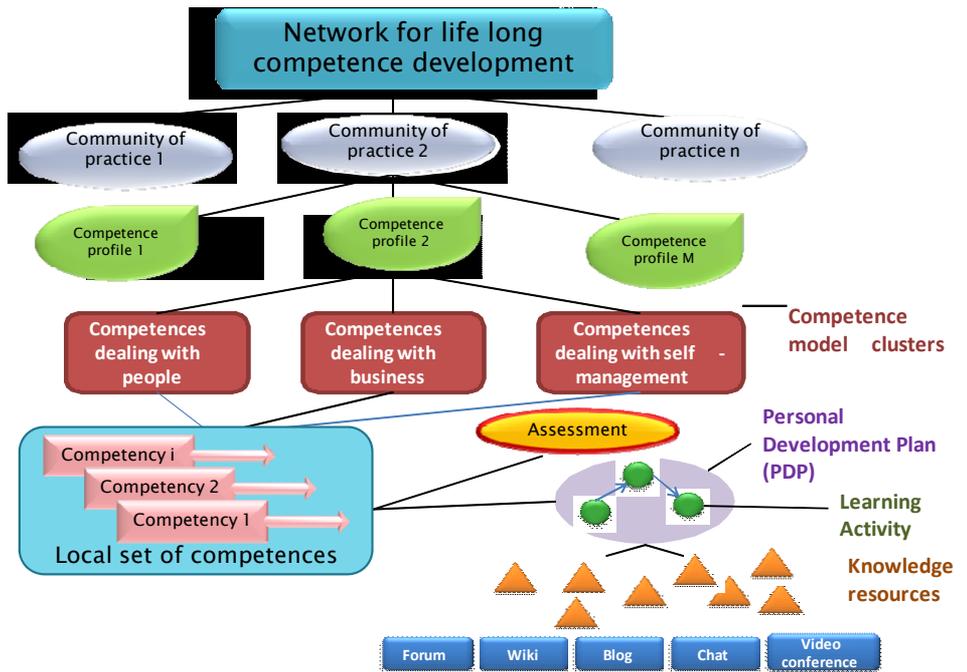


**Figure 7 TENCompetence domain model**

The word ‘personal’ does not indicate that the system is primarily focused on the representation and manipulation of competence information at the level of the individual person who has a competence development need. Rather it indicates that the different levels of competence related information (profiles, competence development networks, competence development plans, etc.) are presented in a way which is consistent with the individual users’ personal view of the domain.

All activities can be carried out individually or in groups defined for each context of the activity. Similarly, the use of the term ‘competence development’ does not mean that the system is focused only on the development of competences. Indeed, the system can be seen as an environment which unifies the processes of representing competences, planning competence development programmes and coordinating competence development networks, as well as facilitating competence development

activities (see Figure 8). Thus the system is personal for the author of a competence development programme as much as it is personal for the participants in that programme.



**Figure 8 Implementation of the hierarchical structure of PCM**

Due to the fact that EPIQ is a high-tech organisation with a huge number of competence profiles (149) and individual competences (around 300 competences per profile) the pilot is focused on eight key job positions, which have their complete

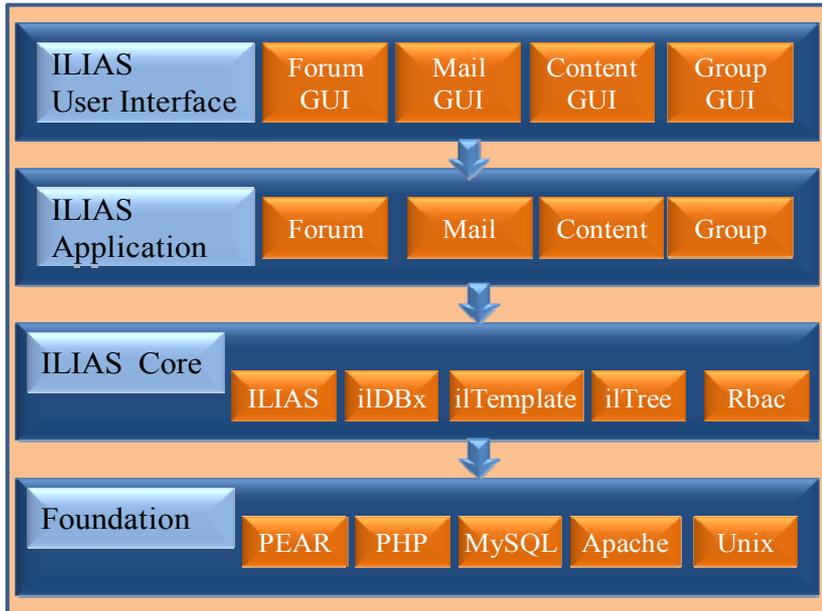
competence profiles prepared. A proper training has been designed and learning activities have been conducted for a limited number of competences (10) as an example practice for the EPIQ HR management to follow.

Applicable to Business Demonstrator is the IMS Enterprise Specification which aimed at administrative applications and services that need to share data about learners, courses, performance, etc., across platforms, operating systems, user interfaces, and so on. It defines a standardized set of structures that can be used to exchange data between Learning Management systems (LMS) and systems mentioned below. These structures provide the basis for standardized data bindings that allow software developers and implementers to create Instructional Management processes that interoperate across systems developed independently by various software developers. The targeted Enterprise systems are: Human Resource Systems — track skills and competencies and define eligibility for training programs; Administration Systems — support the functions of course catalog management, class scheduling, academic program registration, class enrollment, attendance tracking, grade book functions, grading, and many other education functions; Training Administration Systems — support course administration, course enrollment, and course completion functions for work force training; Library Management Systems — track library patrons, manage collections of physical and electronic learning objects, and manage and track access to these materials.

ILIAS is a powerful Open Source Learning Management System which can be used for full support of Professional Development 2.0. ILIAS is built on an architecture designed for integration and communication and allows integrating in a heterogeneous information systems including legacy and/or COTS software systems, e.g. industry focused software systems. Software systems cover functionalities in three core domains: material management; personnel management; operations management.

ILIAS has a customizable design and presentation with a HTML-template engine. The usage of a role based access control system for granular security settings, it has a setup-routine for easy configuration and installation, ability to clientele processing, a better portability of content by using a XML based exchange format (see Figure 9), and also a programming interface which can easily be understood (ILIAS-API). ILIAS system is a 'closed loop' system, starting with a periodical resources planner. The personnel skills can be planned in a personnel development plan (PDP), which insures

current skills being maintained, measured, compared and improved. Skills of applicants are also processed the same way. New skills are being acquired by training and tracked into this system.



**Figure 9 ILIAS Architecture**

High level resource planning is converted into individual time schedules which can be adjusted individually when needed. ILIAS supports learning that is not boxed into courses. All learning and teaching material, working material and communication tools are provided in a central repository. Access to the objects and tools is granted by the flexible role-based access control system. This takes ILIAS from being a simple learning platform to being a world of knowledge. Using ILIAS, it can be created

scenarios in which learners automatically get access to content after having satisfied specific preconditions. Course material can be organised using learning objectives, the completion of which, can be assessed in entry level - and completion tests. Based on these test results, learning resources are then recommended. This is a simple way to offer multiple learning paths and adaptive learning. ILIAS supports self-directed learning, yet ensures that learners do not lose track of their main objectives. Learning plans allow individual to define phases of self-directed learning in a blended-learning scenario. The learning-progress feature informs a learner about his or her progress. This progress is based on the results of tests or exercises, or the time spent working through learning modules and other factors.

## **5 Conclusion**

In this paper, we have presented a conceptual approach to Enterprise 2.0 in general and the opportunity provided for Knowledge Management practitioners. This is to integrate people, process, and technology functions to support continuous learning for the purpose of increasing professional development. We presented the 2.0 tools which contribute to organisational learning, take advantage of the unique culture, resources, and capabilities of the Enterprise. We also presented a distinction between the 1.0 and 2.0 of Enterprise, Knowledge Management and Professional Development paradigms and accent on the effects which bring the Social computer applications for the business. We have created an abstract model which is cross point of the E2.0, KM2.0 and PD 2.0, the focus of the model is on the informal communications in the enterprise which play key role in organisational learning. Knowledge Management SECI model was viewed in terms of professional development.

We discussed the result of the EPIQ Business Demonstrator implementation and the adoption of the 'competence' concept have lead to the improvement of existing and introduction of new HR-related processes and activities, including recruitment and selection, performance management, training and development, succession planning and capability mapping, assessment centre design and establishment. We summarized that companies can better use existing 2.0 applications for competence development, knowledge creation and value sharing. On this point of view we commented the open source system ILIAS which is integrative to Enterprise management system and can be

easily used for planning of competence development of the employee, respectively professional development.

In the center of our research is KM 2.0 which we assume can boost decreasing of complexity, information overload, operational and ICT costs and inefficient process flows, and increasing of agility, learning ability, revenues and Profitability, user and customer satisfaction. So, our next research question and area of interest is which Web 2.0 tools are most efficient and can best fit to the organisational learning and competency management of the company? Which learning scenarios are most appropriate ones? What methodology approach to be follow after to boost the enterprise innovative process?

### **Acknowledgements**

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### **References**

1. Griffiths, D. *et al.* (2007) *Service Oriented Approaches and Lifelong Competence Development Infrastructures*. [online]. Proceedings of the 2nd TENCompetence Open Workshop. Institute of Educational Cybernetics: Bolton, UK. Available from: <http://hdl.handle.net/1820/1023> [Accessed 20th June 2011].
2. Killing, A. and Schürmann, B. (2003) *ILIAS 3 Architecture*. 2nd International ILIAS Conference. [online]. Available from: [www.ilias.de/conference/2003/pdf/WS1-ARCHITECTURE.pdf](http://www.ilias.de/conference/2003/pdf/WS1-ARCHITECTURE.pdf) [Accessed 20th June 2011].

3. Koper, R. (2007) *Ten-Competence: Lifelong Competence Development and Learning*. Open University of The Netherlands. Idea Group Inc. p.230-247 [online]. Available from: <http://dspace.ou.nl/bitstream/1820/823/1/11.pdf> [Accessed 20th June 2011].
4. Koper, R. (2009) *Learning Network Services for Professional Development*. Springer-Verlag Berlin Heidelberg. ISBN 978-3-642-00977-8.p.400-410.
5. Kunkel, M. *Join the Free Spirit ILIAS open source E-Learning*. Cologne, Germany. [online]. Available from: [www.studer-raimann.ch/fileadmin/user\\_upload/.../ILIAS\\_Booklet.pdf](http://www.studer-raimann.ch/fileadmin/user_upload/.../ILIAS_Booklet.pdf) [Accessed 20th June 2011].
6. Loeffen, A. *et al.* (2002) *EML and LMS related standard*. Open University of The Netherlands. p.33-36. [online]. Available from: [Accessed 20th June 2011].
7. McAfee, A. (2006) *Enterprise 2.0: The Dawn of Emergent Collaboration*, MIT Sloan Management Review. vol.3.p.20-29. [online]. Available from: <http://www.wikiservice.at/upload/ChristopheDucamp/McAfeeEntrepriseDeux.pdf> [Accessed 20th June 2011].
8. McKinsey Global Institute (2011) *Big data: The next frontier for innovation, competition, and productivity*. Washington DC, USA. p.1-13. [online]. Available from: [http://www.mckinsey.com/mgi/publications/big\\_data/pdfs/MGI\\_big\\_data\\_full\\_report.pdf](http://www.mckinsey.com/mgi/publications/big_data/pdfs/MGI_big_data_full_report.pdf) [Accessed 20th June 2011].
9. Naeve, A. *et al.* (2008) *A modelling approach to study learning processes with a focus on knowledge creation*. Inderscience Enterprises Ltd., Int. J. Technology Enhanced Learning. Vol.1. N ½.p.16-18.
10. Nonaka, I. and Takeuchi, H. (1995) *The Knowledge-creating Company: How Japanese Companies Create the Dynamics of Innovation*. Oxford University Press, New York.
11. Shoikova, E. and Denishev, V. (2009) *The TENCompetence EPIQ's business demonstrator Development*. Journal: International Journal of Continuing Engineering Education and Life-Long Learning. Vol. 19. No.4/5/6. p. 313 – 328

12. Shoikova, E. (2009) *Stimulating lifelong competence development through technology*. p.25-28. [online]. Available from: [http://mechaning.com/journal/Archive/2009/6-7/7\\_MTM\\_paper\\_Shoikowa.pdf](http://mechaning.com/journal/Archive/2009/6-7/7_MTM_paper_Shoikowa.pdf) [Accessed 20th June 2011].
13. Simon, P. (2010) *The Next Wave of Technologies, Opportunities from Chaos*. John Wiley & Sons, Inc. New Jersey, USA. p.3-20. [online]. Available from: <http://media.focus.com/assets/expert-research/chapter-1-next-wave-technologies/The-Next-Wave-of-Technologies-Chapter-1.pdf> [Accessed 20th June 2011].
14. Wylie, S. (2009) *Enterprise 2.0: What, Why and How, Enterprise 2.0*. <http://www.e2conf.com/whitepaper>. p.1-6. [online]. Available from [http://www.e2conf.com/downloads/Enterprise\\_2\\_0\\_what\\_why\\_how.pdf](http://www.e2conf.com/downloads/Enterprise_2_0_what_why_how.pdf) [Accessed 20th June 2011].

# Inquiring into Appreciative Inquiry

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**Purpose:** The purpose of this paper is to present a conceptual framework for conducting a positivist study of appreciative inquiry as an organizational development intervention. Organizational development intervention based on the principles of appreciative inquiry is to be compared to a traditional team development intervention in a controlled, laboratory study to assess its impact on group process and group performance.

Appreciative inquiry is a theory of organizing and a method of organizational change. It is about the co-evolutionary search for the best in people and organizations and involves systematic discovery of what gives life to a system when it is most effective and most constructively capable. Centrally, appreciative inquiry involves the practice of asking questions that strengthen a system's capacity to apprehend and heighten positive potential. Its distinctive competence is that it is an intervention into the social construction of reality and is based on the socio-constructionist point of view. Constructionism is an approach to human science and practice which replaces the individual with the relationship as the locus of knowledge, and is built around a keen appreciation of the power of language and discourse to create our sense of reality. While logical positivism, congruent with the traditional organizational development methods, tends to assume that social phenomena are sufficiently enduring, stable and replicable to allow for lawful principles, socio-constructionist view is that social order is fundamentally unstable. Traditional organizational development focuses on empirical methods and problem solving, whereas appreciative inquiry takes a social

constructionist approach which accepts impermanence and focuses on the positive co-evolution of the best in people and their organization.

**Research Methodology/Approach:** The methodology involves noting the differences between the traditional organizational development interventions and organizational development based on appreciative inquiry to assess if a positivist approach, which involves the administration and analysis of pre-intervention and post-intervention surveys could result in knowledge about the particular aspects that are advantageous in the two competing interventions.

**Findings:** The findings are that a classically positivistic methodology to assess the impact of a socio-constructionist method of inquiry on action is feasible. This may seem to contradict the very essence of appreciative inquiry. However it is a rigorous test that is congruent with the competing paradigm, and thus has weight in the assessment.

**Originality/contribution:** The paper presents a framework for the evaluation of strengths and weaknesses of an appreciative inquiry organizational development intervention compared with a traditional problem-solving oriented organizational development intervention, on conventional measures of group processes, task performance and group outcomes. It also gives an input to the discussion of the implications for use of particular organizational interventions in practice.

**Limitation:** Since this research results in a conceptual model only, it remains to be tested in actual practice. This testing is intended for a later paper.

**Keywords:** organization development, appreciative inquiry, group process, group performance

## 1. Introduction

This paper aims to present a conceptual framework for comparing appreciative inquiry (AI) based intervention and a traditional organizational development (OD) intervention. What distinguishes AI from the traditional OD methods is the focus on what is functioning well in a social system, team or organization, and building on it, rather than on problem-solving, so it supports a change process that builds on and develops the existing strength-based resources. Appreciative inquiry's inception is in the dissertation of David Cooperrider in 1985 and has since arisen to be an alternative to the approaches of the traditional OD methods.

Let us start here by delineating what OD is. Most OD definitions agree that it concerns system-wide planned change, uses behavioral science knowledge, targets human and social processes of organizations, and intends to build the capacity to adapt and renew organizations (French and Bell 1999; Cummings and Worley 2004). Within these broad parameters, the definition changes with the person defining OD and reflects a variety of perspectives. For example, some emphasize the process of OD work (Beckhard 1969; Beer 1980), whereas others attend to the object of the OD practice (Sashkin and Burke 1987).

A distinction can be made between traditional OD and AI as a prominent example of new OD. Traditional OD seems based explicitly or implicitly in logical positivism - an epistemology that assumes there is an objective, transcendent, knowable, reality. Methodologies based on these assumptions are then employed to help discover or reveal this reality or to help correct distortions or misperceptions. The use of objective data in a process of social discovery, therefore, is a central aspect of the change process in traditional OD. AI, on the other hand, has roots in what has been termed the socio-rationalist perspective, which shows concern with the problematic character of empirical verification (Gergen 1990; Barrett, Thomas et al. 1995), as opposed to logical positivism. As a postmodern theory of change, and unlike the traditional empiricist, the emphasis with AI is not on fundamental theoretical principles but on the susceptible products of particular socio-historical circumstances. When the reality is socially constructed, and conceptions and theories about behavior depend on interpretation influenced by the present social context, then the assumption an "objectively based knowledge" is questionable.

The implication of the different approaches in OD is that there is a need to more clearly specify philosophical premises when discussing and teaching OD practices. Presently, in workplace conversations, in the classroom, at conferences, and in publications, OD practitioners and scholars discuss the theory and practice of organization development as if it is a single entity based on the same set of values and premises. This seems no longer to be a useful assumption and can easily lead to cross-communication or confusion. Worse, those who are implicitly or explicitly entrenched in one set of assumptions may question or challenge the practices of those in the other without fully recognizing that they may not be talking about the same thing at all. Discussions about organization development theory and practice are no longer univocal. It is a time of contending with competing discourses in OD. It will be problematic for advancing theory and practice if the differing underlying values and philosophical premises are not recognized. By clarifying and differentiating premises and associated practices there is an opportunity to develop and advance the new organizational development methods without knowingly or unknowingly limiting our possibilities to the initial accepted beliefs, while at the same time continuing to develop practices based on those well-established principles.

A survey study by Worley and McCloskey (2006) have shown that OD will continue to rely on research that demonstrates its effectiveness and develops change theory. Their data support a recommendation to better orchestrate OD research. Starting step for this is to coordinate programs of research where specific questions, theories, or interventions are methodically developed and evaluated. A coordinated research approach develops the theoretical and practice aspects of a new intervention in a programmatic fashion, and evaluates the effectiveness of OD practice (Worley and McCloskey 2006). AI research has drawn on a different set of theories to create a new practice (Cooperrider and Srivastva 1987) and since the research in this area has been coordinated, shared, and cumulative, there has been considerable progress on this subject. The next step in a coordinated research agenda is more evaluation of OD's ability to affect organization effectiveness. For AI much work needs to be done to determine whether the intervention improves effectiveness, and whether current research methods are appropriate to evaluate an intervention based on social constructionism (Worley and McCloskey 2006). A particular instance of that question regards research method(s) that can be employed to compare relative advantages of AI approach based interventions and a traditional OD. Even if the research of AI has shown coordination and progress, there is virtually no research comparing AI with a

traditional OD. The paper presents the view that although a classical positivist methodology goes against the spirit of appreciative inquiry, and is in no way compatible to be a part of an AI intervention, it is a feasible solution for comparing the interventions based on AI and traditional OD.

## **2. Development of Scientific Inquiry into Organizational Behavior**

Determining how truth is understood is important to any research; the ontological background of a discipline informs the research method and approach. Before examining any change in an organization, it is necessary to know what guiding philosophical perspective is used to seek truth or knowledge, and comparing approaches of different philosophical assumptions requires the understanding of both. Furthermore, to clearly communicate philosophical assumptions about a change approach may avoid miscommunication among researchers.

### ***2.1 Logical Positivism***

As a philosophy of science, logical positivism has dominated the academic world, particularly MBA and business related Ph.D. programs, for the past 50 years. Hence, most change-agents were trained in problem-solving or action science approach. Analysis could suggest that the problem-solving orientation has not generated many creative or lasting solutions (Quinn 1996). Problem solving, action science, and the scientific empiricism are all based on the assumptions of logical positivism. A key assumption in logical positivism is that social and psychological reality is something fundamentally stable, enduring, and “out there” (Sussman and Evered 1978).

Fredrick Taylor, regarded as the Father of Scientific Management, in his seminal work regarding organizational theory, *The Principles of Scientific Management*, wrote, ‘scientifically select, and then train, teach and develop the workman’, ‘cooperate with the men so as to insure all of the work being done in accordance with the principles of

the science' and have 'division of the work and the responsibility between the management and the workman' (Taylor 1911, p.36). This brief quotation demonstrates an example of the linear, deterministic perspective. Taylor is extremely important to our understanding of organizations and organizational theory. Taylor's work presented to managers guidance on how to organize the business. Effectively it gave managers power that supported their right to run the business in the most productive and profitable way regardless of the views of the employees. It did this by making it possible for managers to refer to a higher-order power than their own personal opinion, in this case the power of science as expressed through the authority of logic and reason. For Taylor the way forward to a more peaceful and productive organizational environment was through engineering the organization. Calling on a contemporary understanding of organizational metaphor (Morgan 1997), the underlying metaphor of a Taylorist organization is of the organization-as-machine. This metaphor has proved to be extremely durable and extremely powerful in influencing our understanding of, and behavior within organizations and the majority of managers and workers carry this idea of an organization into their organizational interaction.

## ***2.2 Impact of Logical Positivism on Organization Development***

The original formulation of organization development included a strong positivist orientation based in mid-twentieth century social science research methodologies, rooted in tradition of scientific management. The whole idea of data-based change presumes the existence and validity of an objective, discernable reality that can be investigated or researched to produce valid data and information to influence change. For example, one of Argyris's three core tasks of a change agent is the creation of valid data. Argyris (1970) proposes that it has been accepted as axiomatic that valid and useful information is the foundation for effective intervention. 'One condition that seems so basic as to be defined as axiomatic is the generation of valid information...Valid information is that which describes the factors, plus their interrelationships...' (p.p.16-17). This theme is echoed by Benne and Chin (1969) in their discussion of general strategies for effecting change in human systems. 'One element in all approaches to planned change is the conscious utilization and application of knowledge as an instrument or tool for modifying patterns and institutions of

practice' (p.1). Knowledge is here discovered through the scientific method which assumed an objective, transcendent and knowable reality.

Many of Taylor's specific principles, as well as his underlying assumptions, appear to have penetrated the very ether of organizational belief, being present as unspoken and widely accepted truisms. It is important to examine the beliefs that follow from this idea of the organization-as-machine as they act as highly influential, yet usually unarticulated, rationales for change-orientated initiatives, as is the belief in the power of problem solving to change organizations. People have an ability to improve their environment, that is, to solve pertinent problems, and also hone this natural ability during the years at school into highly developed logic-based reasoning skills. Having these skills, problems tend to be seen as being solvable by their application. The organization-as-machine metaphor leads up to see all problems as problems of logic. So when it is said that a problem is a problem of logic, it is implied that sufficient data can be generated and analyzed against a set of criteria, upon which the right answer to the problem will emerge.

Bushe and Pitman (1991) assert that the problem-solving approach creates an environment in which people spend most of their time focusing on what is not working well and they can only do this for so long without becoming demoralized and resigned to being in a problem filled workplace. This form of inquiry also reduces the possibility of generating new theories and new images of social reality that might help transcend current social forms (Bushe 1995). The frames or assumptions generated by the problem-solving or "what is wrong" approach keeps us in the proverbial box (Cooperrider 1990). It is questioned how fix what is there rather than asking how to accomplish that which is desired.

Problems arise when organizations make a category error and fail to recognize when they are dealing with a qualitatively different challenge. This failure of distinction arises as the logic-based problem-solving model is so pervasive that there is a tendency to perceive all issues of organizational change as issues of logical problem solving; and to treat them as such. It makes it hard to see change as being embedded in patterns of human communication and relationship.

### ***2.3 Social Constructionism and the New Organization Development***

A change occurred during the 1980s, when constructionist and postmodern approaches began to heavily influence the social sciences with ideas about multiple realities and the inherent subjectivity of experience (Bergquist 1993). Part of this movement also included the notion that if there are multiple realities then there can be no transcendent, objective truth to be discovered. Instead the issue becomes how agreements about the reality of a situation are actually, or could be most effectively, negotiated among the contending points-of-view. Many of these ideas have also influenced and or been incorporated into aspects of organization development thought and practice in recent years. The development of AI is based on social constructionist premises, where reality is at least partially, if not completely, a result of one's mindset is one prominent example. This is reflected in the discussions about the impacts of "deficit-focused thinking" and the problem solving attitude and approach versus the "positive-focused thinking" that forms the core of AI.

The development of interventions to seek "common ground" (versus an objective truth) or wherein the dominant approach, in essence, is to get agreement among multiple constituencies, all of whose points-of-view are considered legitimate versions of reality, are additional examples. While data is certainly gathered and used in these approaches, it is done more for the purposes of presenting multiple possibilities and perspectives than bringing objective, "facts" to bear on the situation in order to change behaviors. Instead the greater emphasis is on reaching new social agreements or adopting new mindsets, and therefore new realities, to guide future actions. Alternatively, data related to the intervention might be gathered, as the author proposes, to have a basis for comparison to an alternative intervention method and get insight into the relative advantages and conditions when best applied of both.

### ***2.4 Theories Supporting Change through AI***

Instead of an overarching theory of how organizations work, the focus of Appreciative Inquiry is on co-constructing new reality based on experiences of individuals in a group. There are some theories and theoretically based assumptions to explain the process. The main idea is that patterns of action are typically entangled with modes of

discourse that shape the mindset from which the action arises. Thus, the basic assumption of AI is that if we wish to change patterns of action one significant means of doing so is through altering forms of discourse - the way events are described, explained or interpreted (Gergen 1999). Changes in the ways of putting things, new metaphors and narratives, and new forms of description and explanation will shape the collective action. In effect, *accounts of our world that challenge the taken-for-granted conventions of understanding*, form a new reality and give way to transformative changes.

Research from diverse fields substantiates the power of positive imagery to generate positive action (Cooperrider and Srivastva 1987). For example, in the medical field, a well-documented placebo effect results from people's positive expectancy about the healing effect. Classical research in the field of education brought to light the "Pygmalion effect", where teachers were told that some students had high potential when in fact they were no different from other students; the supposedly high potential students were later found to have outperformed their classmates. With AI the same mechanism with the focus on positive imagery, is at work and is key to its success. Anticipating a favorable behavior of the self makes it easier to get rid of the destructive modes of behavior and accept new modes of behaving and thinking.

Positive Psychology might hold clues to the role of positive emotions in the AI event experience. Fredrickson's (2001) research shows that positive emotional experiences invoke a broadening of responses and an increase in the creativity in problem-solving. Positive emotions also motivate the subject to continue in a line of reasoning or course of action longer than subjects experiencing negative emotions. This indicates that subjects experiencing positive emotions are more likely to find more viable and more sustainable solutions to their problems. Isen's (2000) research shows that people experiencing positive feelings are more flexible, creative, integrative, open to information and efficient in their thinking. They have an increased preference for variety and accept a broader array of behavioral options. In addition, there are numerous, recent studies showing that the ratio of positive to negative talk is related to the quality of relationships, cohesion, decision-making, creativity and overall success of various social systems (Fredrickson and Losada 2005). The focus on the positive in AI can increase positive feelings, the positive talk ratio, and make generative thinking and acting more likely.

### **3. A Research Framework for Comparing a traditional OD and AI**

Epistemology and methodology are intimately related: the former involves the *philosophy* of how we come to know the world and the latter involves the *practice* of how we come to know. We have seen in the previous sections of the paper that AI and the traditional OD approaches arise from a different epistemology, and the research methods that are connected with them. The approaches are epistemologically and practically contradictory in that scientific empiricism, associated with positivism and traditional OD, and interpretivistic exploration, associated with AI, regard each other's central assumptions as invalid. AI has as its basis a concern that social existence that can never be fully comprehended. It also posits that research into the social potential of organizational life should be collaborative. This overarching principle points to the assumed existence of an inseparable relationship between the process of inquiry and its content. A collaborative relationship between the researcher and members of an organization is, therefore, deemed essential on the basis of both epistemological and practical grounds (Sussman and Evered 1978). Both of the tenets, impossibility of full understanding of social reality and inseparability of researcher and the content of research are negated by logical positivism. Lee (1991) also makes a distinction between the social constructionist, which is ostensibly qualitative, and positivist which is ostensibly quantitative, approach to research. Question arises by which methods the two types interventions discussed here may be compared against each other. For the sake of comparison points of reference are needed to relate the magnitude of effects of the interventions, requiring a logical positivist approach, while in designing a research framework it is needed to take into account epistemological backgrounds of both interventions.

The positivist and interpretive approaches would appear to be in opposition (Lee 1991, p.350) and there are diverging views regarding the legitimacy of combining the seemingly opposed research methods. Klein *et al* (1991) make a very useful distinction between five fundamental attitudes when confronted with diverging lines of research rooted in different conceptions of the nature of science: supremacy, contingency, , eclecticism, dialectics and pluralism. Supremists believe in the universality of "a" research approach and epistemology. Advocates of contingency in research methods maintain that the choice of method should be a function of the focus

or object of the research and the relative strengths and weaknesses of a limited number of accepted and competing research methods. Eclecticists, perceive a diversity of methods, but like advocates of contingency, feel the matching of method to problem should be based on contingencies of the situation or problem being studied. Dialectics hold that methods must compete for dominance and that through passionate competition a superior synthesis evolves, which then goes on to compete at a higher level of discourse with a newly emerging opponent. Pluralists believe that different approaches can be brought to bear on the same problem domain and that there exists no single universally valid way to delineate objects of study or to match the strengths and weaknesses of different research approaches with contingent features of the object of study.

The author agrees with Mingers (2001) that ‘- it is possible to detach research methods from a paradigm and use them, critically and knowledgeably, within a context that makes different assumptions.’ Mingers (2001) advocates strong methodological pluralism, that is, not only suggesting that each paradigm is more or less appropriate for a particular research situation but arguing that all research situations are inherently complex and multidimensional, and would thus benefit from a range of methods (and paradigms). In short, Mingers (2001) argues that ‘- the real world is ontologically stratified and differentiated - consisting of a plurality of structures that generate the events that occur (and do not occur). Different paradigms each focus attention on different aspects of the situation, and so multimethod research is necessary to deal effectively with the full richness of the real world’ (p. 243).

The research situation assumes comparable samples, one on which a traditional OD has been applied, and another to which AI based intervention has been applied. The research goal is to compare the effects of the interventions on group processes, task performance and group outcomes. Different paradigms associated with the interventions each focus attention on different aspects of the situation, and so multimethod research is necessary to deal effectively with the full richness of the real world. To achieve maximum comparability of results a pre and post survey may be followed, thus utilizing the main strength of survey research, generalisability and external validity. Surveys can accurately document the norm, identify extreme outcomes, and delineate associations between variables in a sample. With a survey administered *ex ante* to an appreciative inquiry based intervention there could concern could be made as one of the basic assumptions of AI is that the very act of asking

questions creates new realities. A careful design and choice of questionnaire is needed to avoid any impact on the thought and behavior processes of the people being surveyed. A choice of the research instrument will be informed with the desired knowledge about group dynamics and group outcomes. Congruent with the idea of AI the survey will not be employed as a tool or basis for the AI intervention.

Given the potential benefits of combining research methods within a single research design, it makes sense to leverage it by proposing approaches to combining methods. This paper proposes one such combination; that of surveys with case studies. The social constructionist interpretive approach, requires that 'the social scientist must collect facts and data describing not only the purely objective, publicly observable aspects of human behavior, but also the subjective meaning this behavior has for the human subjects themselves' (Lee 1991, p.347), which may be achieved through case studies. Considering the influence of socially constructed reality, consciousness, and mental models on organizational behavior, a case study approach is a valuable complement to surveys to illuminate the social processes. Case studies differ fundamentally from surveys in that the researcher generally has less presumptive knowledge of what the variables of interest will be and how they will be measured. It is however possible to make theoretically based assumptions in respect to the social process under examination that can be tested at a predetermined follow-up time by comparing these hypotheses with the observed process outcomes under a prospective case study design. Such a test can be performed by using the pattern-matching technique (Trochim 1989), and the theoretical assumptions to be tested may be drawn from those presented in the previous section. Prospective case study design is the greatest in the areas where substantial leap of faith is required to connect the existing quantitative operational measures with the postulated theoretical constructs (Bitektine 2008), as is the case with the theoretical postulations regarding change behind AI, such as power of positive imagery, and effect on positive affect on group outcomes.

Prospective case studies use deductive theory testing with qualitative methods and are believed to have a major potential: Social theory testing in vivo, or using the rich data of a live social process, may generate important insights into the applicability and explanatory power of our theories and provide an important complement to theory tests performed using traditional quantitative methods (Bitektine 2008). By establishing theory generalizability to those aspects of the social phenomena that are not amenable to quantification, theory testing using qualitative methods can reduce the need for

“leaps of faith” when conclusions based on measurable, quantitative evidence are extended to other, nonmeasurable aspects of the social processes. Given that only few aspects of our social environment can be reliably measured and quantified, the possibility of using nonquantifiable, qualitative data in deductive theory testing holds a great potential. It is important to note that the gain in rigor associated with the choice of prospective case methodology over the *post hoc* case study design does not come at the expense of richness of the collected qualitative data. Prospective case study design, thus, may be viewed as an attractive solution to the rigor/richness trade-off that researchers face when choosing an appropriate method for their study.

One of the outputs of a case study is the case study documentation file, for which the main purpose is to supply rich detailed background on the cases, to aid in interpretation of results from statistical analysis of the survey data and to serve as a further test of validity/reliability through comparison of survey results with case study findings (triangulation). It also and illuminates the context and conditions under which research is conducted. Bikson (1991) suggests ‘whether a researcher collects quantitative or qualitative data is independent of whether survey or interview methods are used and whether cross-sectional or case study designs are involved. Rather, it depends on how structured the data gathering method is and whether the data gathered can be represented by variables that take numeric values.’ Thus, a researcher's decision to undertake case studies in conjunction with planned survey will depend upon the perceived magnitude of the benefits and the perceived magnitude of weaknesses in the survey design. To a lesser extent several of the benefits of case studies can even be realized through open-ended survey questions, semi-structured interviews and other methods of survey data collection which elicit qualitative as well as quantitative data. Given the desirability of structured data needed for comparison of the interventions, a prospective case study, along with structured data gathering is advisable for the research situation discussed in this paper.

#### **4. Possible Modifications of the Research Framework**

The main disadvantage of conducting the case studies after the survey, as proposed, rather than before is that they do not contribute to the model building. Attewell and Rule (1991) suggest that it makes sense to do fieldwork first. ‘Getting close to the

phenomenon - gathering insights or discoveries about causal links, motivations, reasons why things happened - should precede verification by more objective techniques, such as surveys' (p. 314). Another output of a case study is the tested pattern of variables, which can serve as the main input to development of the the survey.

It is observed that both surveys and case studies can often be further strengthened through integration with experimentation. While it is easier to extend research from the laboratory to the field, an attempt should also be made to experimentally test propositions arrived at non-experimentally. Gutek (1991) indicates a desire to see more survey research combined with experimental design. Gutek (1991) suggests there is no reason an experimental manipulation cannot be embedded in a survey<sup>1</sup>. Combining the main strength of survey research (generalizability/external validity) with the main strength of experimentation (internal validity through random assignment to conditions) and with case studies (model complexity and discoverability) can yield a superior piece of research.

Aside from the questions of the appropriateness of a research design, there are psychological barriers related to this combination of types of analysis. Given human limitations, individuals must specialize in a limited number of methods whereby recognizing and making one's presumptions and beliefs explicit may help with research design. Assuming that cognitive predilections are more or less fixed and do dictate a researcher's suitability for conducting research using certain methods (and unsuitability for using others), it may be "schizophrenic" to require that a single researcher be suitable for carrying out the two types of analysis following the contradicting ontological and epistemological beliefs of the two different philosophical perspectives. However, the cognitive predilections may not be entrenched.

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<sup>1</sup> e.g. identification of "natural controls", strategic sampling, longitudinal control samples

## 5. Conclusion

There has been an increasing interest in models of change that are based on assumptions quite different from those advanced in the early days of organization development. In general, there is increased emphasis on transforming mindsets and consciousness, exploring different images and assumptions about change, and methods that tend to be more about creating common social perceptions and agreements than data-based analysis. OD may also be facing an emerging "new OD" for which AI is a prominent example, which is not necessarily different from a values perspective so much as from an ontological and epistemological perspective. Put another way, there may now be an emerging set of OD practices based on philosophical assumptions and resulting methodologies about social phenomena and social reality that are quite different from key assumptions of the founders. There is an increased emphasis on transforming mindsets and consciousness, exploring different images and assumptions about change, and methods that tend to be more about creating common social perceptions and agreements than data-based analysis, separately and together contribute to distinguishing a significant range of contemporary OD from its traditional roots.

Whether or not there is a clearly definable new OD, there have certainly been ongoing developments and differentiations in the philosophy, theories and practices of organization development since its origins in the 1950s and 1960s. These need to be more clearly articulated, distinguished and addressed by practitioners and scholars in the field. Absent clearer delineations and understandings we risk miscommunication and confusion. Distinguishing and legitimating a new OD based on differing philosophical assumptions from traditional OD might encourage academics and practitioners to more consciously pursue new approaches, and thereby encourage the discovery of new innovations and social technologies for addressing change in human systems.

Besides distinguishing and delineating AI and new OD practices in general in terms of the guiding principles and guiding assumptions, the theories of change that support them, it is useful to compare their effectiveness and in which circumstances they work best and are applied to the best result. Since their different epistemological assumptions a framework for evaluation that espouses the particularities of both is needed, and has been presented in this paper. It was presented how case studies, when

integrated with a survey in a larger, more complex research design, can be useful as a source of rich detail to aid in the interpretation of quantitative findings from the survey (construct validation/internal validity and interpretation of observed associations); as a further means of triangulation, by testing the propositions or patterns with the case sample as well as with the quantitative survey data.

The positivist research approach is proposed here for its value in the specific context of comparing the process and outcomes of an intervention based on AI to one based on traditional AI. This is not to disregard the power and potential of AI for generative theory, keeping in mind that 'one of the major routes to social change is through audacious theorizing' (Gergen 1999, p.116).

## References

1. Argyris, C. (1970). "Intervention theory and method." Reading, Mass.
2. Attewell, P. and J. B. Rule (1991). "Survey and other methodologies applied to IT impact research: experiences from a comparative study of business computing." The Information Systems Research Challenge: Survey Research Methods **3**: 299-315.
3. Barrett, F. J., G. Thomas, et al. (1995). "The Central Role of Discourse in Large-scale Change: A Social Construction Perspective'." Journal of Applied Behavioral Science **31**: 352–72.
4. Beckhard, R. (1969). "Organization development: Strategies and models."
5. Beer, M. (1980). Organization change and development: A systems view, Goodyear Pub. Co., Santa Monica, Calif.
6. Benne, K. D. and R. Chin (1969). "General strategies for effecting changes in human systems." The Planning of Change, 2nd edn. New York: Holt Rinehart.
7. Bergquist, W. H. (1993). The postmodern organization: Mastering the art of irreversible change, Jossey-Bass Publishers.
8. Bitektine, A. (2008). "Prospective Case Study Design." Organizational Research Methods **11**(1): 160.

9. Bushe, G. R. (1995). "Advances in appreciative inquiry as an organization development intervention." Organization Development Journal.
10. Bushe, G. R. and T. Pitman (1991). "Appreciative process: A method for transformational change." OD Practitioner **23**(3): 1-4.
11. Cooperrider, D. L. (1990). "Positive image, positive action: The affirmative basis of organizing." Srivastras, S. and Cooperrider, D. Appreciative Management and Leadership.
12. Cooperrider, D. L. and S. Srivastva (1987). "Appreciative inquiry in organizational life." Research in organizational change and development **1**(1): 129-169.
13. Cummings, T. and C. Worley (2004). Organisation development & change. South Melbourne, Thomson
14. Fredrickson, B. L. (2001). "The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions." American psychologist **56**(3): 218.
15. Fredrickson, B. L. and M. F. Losada (2005). "Positive affect and the complex dynamics of human flourishing." American psychologist **60**(7): 678.
16. French, W. L. and C. Bell (1999). Organization development: Behavioral science interventions for organization improvement. Upper Saddle River, NJ, Prentice Hall
17. Gable, G. G. (1991). "Consultant engagement for computer system selection:: A pro-active client role in small businesses." Information & Management **20**(2): 83-93.
18. Gergen, K. J. (1990). "Toward a postmodern psychology." The Humanistic Psychologist **18**(1): 23-34.
19. Gergen, K. J. (1999). An invitation to social construction, Sage Publications Ltd.
20. Isen, A. M. (2000). "Some perspectives on positive affect and self-regulation." Psychological Inquiry **11**(3): 184-187.
21. Klein, H. K., R. Hirschheim, et al. (1991). "A pluralist perspective of the information systems research arena." Information Systems Research: Contemporary Approaches and Emergent Traditions: 1.
22. Lee, A. S. (1991). "Integrating positivist and interpretive approaches to organizational research." Organization science **2**(4): 342-365.

23. Mingers, J. (2001). "Combining IS research methods: towards a pluralist methodology." Information Systems Research **12**(3): 240-259.
24. Morgan, G. (1997). Images of organization, Wiley Online Library.
25. Quinn, R. E. (1996). Deep change: Discovering the Leader Within. San Francisco, Jossey-Bass.
26. Sashkin, M. and W. W. Burke (1987). "Organization development in the 1980's." Journal of Management **13**(2): 393.
27. Sussman, E. L. and R. D. Evered (1978). "Assesment of the scientific merit of action research." Administrative Science Quarterly(23): 582-603.
28. Taylor, F. W. (1911). "Scientific management." New York.
29. Trochim, W. (1989). "Outcome pattern matching and program theory." Evaluation and Program Planning **12**(4): 355-366.
30. Worley, C. G. and A. McCloskey (2006). "A positive vision of OD's future." The NTL handbook of organization development and change: 501-513.

# The Cross-Border Relations of Hungarian SMEs from the Point of View of Culture

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As a consequence of today's globalized business world not only multi- and transnational companies have to deal with other cultures while doing business internationally but so do the SMEs. That's why the present study assumes that culture significantly affects the business strategies and techniques of SMEs that want to have economic or business cross-border relations. Therefore it will be analyzed why and how culture can have an influence on cross-border business relations. After introducing a short theoretical background, the paper will focus on Hungarian SMEs from the West-Transdanubian region that have business relations with Austrian SMEs. For that reason the paper introduces the first results of a quantitative research as part of a project which purpose is the optimization of intercultural communication and collaboration between Hungarian and Austrian SMEs. The aim of the study by showing the empirical result is to confirm the assumption and draw some conclusions.

**Keywords: culture, SMEs, cross-border relations**

## **1. Introduction**

Huntington (1993) states that ‘the Velvet Curtain of culture has replaced the Iron Curtain of ideology as the most significant dividing line in Europe’ (p.31). This means that according to Samuel Huntington (1999) after the Cold War the most important distinguishing features between nations are not ideological, political or economic but cultural ones. Consequently when analyzing business or economic relations not only economic factors have to be taken into consideration but cultural aspects as well since problems are not economic in nature but rather reflect the differences between the way of thinking of the partners (Hofstede and Hofstede,2008).

Based on the above-mentioned in the present paper the emphasis is put on the cross-border relations of small- and medium-sized enterprises (henceforth SMEs) of the West-Transdanubian region of Hungary from a cultural point of view. A reason for this is that internationalization, cross-border trade and cross-cultural businesses have reflected the reality of world economy in the past few decades (Ablonczy-Mihályka,2009). Namely business relations have increasingly expanded outside single nations and regions of the world to encompass many differing countries (Sims,2009). Therefore in today’s globalized business world not only multi- and transnational companies have to deal with other cultures while doing business internationally but so do the SMEs. That’s why the present study assumes that culture significantly affects the business strategies and techniques or in other words the business culture of SMEs that want to have economic or business cross-border relations.

## **2. Research questions**

### ***2.1 Theoretical background***

Although culture is a widely used term, a unique definition of it that is accepted by everybody doesn’t exist. A reason for this can be that culture manifests itself in different levels for example national, regional, corporate, ethnic and/or religious level (Hofstede,1980). National culture is in the focus of the present paper therefore the

definition of Falkné (2008) is used according to which national culture is ‘a system of common beliefs, norms and values that are shared among a certain group of people’<sup>1</sup> (p.15). Besides its appropriate definition its importance and influencing power is also less known, however culture’s importance is significant not only in national but in corporate level as well since certain forms of economic behavior are determined by national culture (Fukuyama,2007). As a consequence of this national culture is crucial when analyzing cross-border business relations since in this case at least two diverse nations’ representatives (e.g. SMEs) cooperate with each other and their behavior, way of thinking, assumptions are all determined by their own national cultures which can lead to misunderstandings, miscommunication and other problems as well. This also means that SMEs with different cultural backgrounds do business in diverse ways therefore a greater understanding of differing nations and cultures is essential to have successful business relationships.

A greater understanding of differing nations and cultures can be obtained and cultural differences can be revealed if cultures are researched. Lots of ways of researching cultures and cultural differences exist (see those of Hofstede, 1980, 2008; Trompenaars, 1993; Hall, 1976, 1980; House, Javidan, Hanges and Dorfman, 2002); most of them are based on dimensions. This means that dimensions are defined by the researcher itself who then puts the cultures into one of the dimensions and finally compares the cultures based on these dimensions. This type of researching cultural dissimilarities have had to face a lot of critiques, therefore a new and innovative way of researching differences between cultures turned up, called the culture standards method. The culture standards method is a qualitative research approach (it uses interviews) which deals only with those differences that are valid only in the comparison of two cultures (Topcu,2005). Culture standards can be identified if the researcher examines the given culture from the point of view of a member of the other culture. Nevertheless, the culture standards method uses some dimensions from the above-mentioned researchers.

Since the research project and its first findings presented in this paper are all based on this dimension-based way of researching culture, a short review of the most important

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<sup>1</sup> The author’s own translation.

cultural dimensions will be introduced together with the Hungarian results<sup>1</sup>. Hofstede (1980) defined four cultural dimensions: power distance, uncertainty avoidance, masculinity vs. femininity and individualism vs. collectivism. Later he defined a fifth dimension that he called the Confucian dynamism (Hofstede and Bond,1988). As for the Hungarian results of Hofstede (2008), middle power distance, individualism, masculinism and strong uncertainty avoidance characterizes Hungary.

Trompenaars (1993) identified seven cultural dimensions based on cultures' relationship to the people, to the time and last to the environment. As a result he distinguished universalistic vs. particularistic, individualistic vs. collectivistic, neutral vs. affective, specific vs. diffused, sequential vs. synchronic, inner-directed vs. outer-directed, achievement- vs. ascription-oriented cultures. With regard to Hungary he found that Hungarian culture is universalistic, individualistic, affective, diffused, ascription-oriented, synchronic and inner-directed (Trompenaars,1993).

Finally, Hall (1976, 1980) made a distinction between the cultures on the one hand based on their way of communication so he talked about high-context and low-context cultures and on the other hand based on their way of time management so he differentiated monochronic and polychronic cultures. According to Hall (1976, 1980) Hungary is considered to be a polychronic and high-context culture.

## ***2.2 Purpose and research methodology***

The purpose of the present paper by introducing the first findings of an ongoing research project titled *Optimization of intercultural communication and collaboration AT-HU* (henceforth OPTICOM) is to decide whether national culture affects the business culture of SMEs as the overall purpose of the project is to identify those cultural differences that can impede the successfulness of cross-border relations of Hungarian SMEs from the West-Transdanubian region. Therefore this paper examines the relationship between culture and business so it puts the emphasis on the business culture of SMEs operating in the West-Transdanubian region and having

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<sup>1</sup> The content of the dimensions introduced in this paper will be explained together with the results in the Findings part of the paper.

cross-border relations with Austrians. Consequently in the study the major emphasis is put on the cultural aspect of cross-border relations.

The research presented in this paper is based on a survey conducted at the end of 2010 at several SMEs from the West-Transdanubian region. This region consists of three counties: Győr-Moson-Sopron, Vas and Zala County. The region also neighbors four countries including Austria, Slovakia, Slovenia and Croatia, but only those SMEs were parts of the sample that have business relations with Austrians. According to the database of the Chamber of Commerce and Industry for Győr-Moson-Sopron County in April 2010 there were 1878 SMEs in the region that have any kind of cross-border relations from which 1542 SMEs have business relations with Austrians. The sample was random from the 1542 SMEs and was taken from business actors across all levels of positions. Among the respondent enterprises micro-sized enterprises can also be found. The surveyed SMEs operate mostly in the service sector.

Data were gathered by a questionnaire entitled '*Business culture of small- and medium-sized enterprises in the Hungarian-Austrian border region*'. Questionnaires were used as it is supposed to be more efficient for gathering data in the first part of the research but later interviews will also be conducted on the one hand to identify culture standards that can help to make the cross-border relations of Hungarian SMEs with Austrians better and on the other to explore which issues and questions would be worth making a follow-up study in the future.

### **3. Questionnaire and respondents**

The questionnaire tests the hypothesis that culture significantly influences cross-border business relations. The questionnaire examines the business culture of SMEs from the West-Transdanubian region to define the characteristics of the business culture of SMEs from the given region.

The questionnaire used in this research consisted of 26 questions in five parts. The first part of the questionnaire required information about the enterprise and the respondent itself. The second part of it sought for information on the business relations between Hungarian and Austrian enterprises. The third part measured the ICT infrastructure of

SMEs. The forth part of the questionnaire surveyed the characteristics of the business culture of the respondent SMEs (the present paper illustrates the first findings relating to this part). The last part of the questionnaire examined the communication channels between Hungarian and Austrian business partners.

Every question of the questionnaire was structured therefore the alternatives and the forms of answers were given in advance. In the questionnaire selective and alternative closed questions and Likert-type scale questions were used.

The questionnaire was on-line consequently potential respondents first were sought from the researchers' own network and then 'snowballed' by respondents forwarding the link of the questionnaire to colleagues. As for the respondents, 153 Hungarian questionnaires and 112 Austrian ones were examined after data cleansing. The present paper deals only with the findings of Hungarian questionnaires.

As for the respondents 60% of them consisted of men and 40% were women. 38,6% of the respondents were aged under 35, whereas 43,8% of them were aged between 36 and 50 and only 16,3% of them were older than 51 and two respondents didn't mention his/her age.

The outline of the education of the respondents can be seen in Table 1. It has to be mentioned that three people didn't reveal his/her education.

<b>Education</b>	<b>Respondents</b>
higher education	56,2%
secondary school diploma	32%
vocational education	7,8%
elementary school	2%

**Table 1 Respondents' education**

Source: Own research

Regarding the positions of the respondents, two people didn't mention his/her position, but 58,8% of them take a leading position and 39,9% of them are not in a leading position.

Regarding the language knowledge of the respondents the findings are shown in Table 2. The questionnaire measured only the knowledge of German and English languages because these two languages are the most important ones in the analyzed region therefore the knowledge of other languages wasn't surveyed in this questionnaire as it wouldn't be relevant information.

<b>Language knowledge</b>	<b>Respondents</b>
German basic level	22,2%
English basic level	17,0%
German medium level	16,3%
English medium level	15,7%
German upper level	8,5%
English upper level	3,3%

**Table 2 Respondents' language knowledge**

Source: Own research

Finally the respondents were asked to reveal the profile and the size of their company. According to this 75,8% of the SMEs operate in the service sector whereas 21,6% of them operate in the field of production. Four SMEs didn't reveal their profile. Regarding the size of the respondent SMEs 66,7% of them is a micro-sized enterprise in view of the fact that the number of employees is lower than 10 and 16,3% of them is a small-sized enterprise which means that the number of employees is between 10 and 50. 5,2% of the SMEs have more than 51 employees but less than 100. 3,3% of the sample which means five SMEs have employees between 101 and 200, and only 5,9% of the respondents have more than 200 employees. Four SMEs' sizes remain unknown due to missing responses.

#### **4. Findings**

The purpose of the OPTICOM research project was to examine the business culture of SMEs with different cultural backgrounds consequently it focused on SMEs operating

in the West-Transdanubian region. Since the hypothesis of the present paper is that culture has a significant influence on cross-border relations, the present paper deals with the fourth part of the questionnaire which measured the characteristics of the business culture of the respondent SMEs. However, as it has already been mentioned the study is limited only to the findings deriving from the Hungarian questionnaires.

This fourth part of the questionnaire contained 30 attitude-statements in connection with intercultural communication and collaboration. The respondents had to indicate in a 5-point Likert-type scale (0- don't know, 1- disagree, 4- absolutely agree) to what extent they agree with the given statement. However, the present paper doesn't illustrate all of the statements just a few of them to verify the hypothesis and also to provide a picture of the business culture of Hungarian SMEs operating in the West-Transdanubian region.

The first three questions of the fourth part of the questionnaire are in connection with Hofstede's (1980) power distance dimension. This dimension refers to the extent to which less powerful members of institutions and organisations accept an unequal distribution of power (Hofstede,1980). As for question 2 – *I like if my business partners call me by my surname* – 62,7% of the respondents said that to some extent they agreed with this statement, 32% of them disagreed with this, 3,9% chose the answer *don't know* and 1,3% didn't choose any of the options. Resulting from the answers the Hungarian SMEs operating in the West-Transdanubian region are characterized by high power distance.

From question 4 to question 9 answers represent the specific vs. diffused culture of Trompenaars (1993). Specific vs. diffused cultures have to do with the separation or integration of private life and professional life so managers of specific cultures tend to focus only on behavior that takes place at work, while managers from more diffused cultures include behavior that takes place in employees' private and professional lives (Trompenaars,1993). In answer to statement 7 – *I like if professional business programs are complemented with free-time/cultural activities* – the trend shown in Table 3 has been identified.

Answers	Respondents
don't know	5,9%
disagree	19,0%
partly agree	32,7%
agree	30,1%
absolutely agree	11,1%
missing answers	1,3%

**Table 3 Attitudes toward the integration of private and professional life**

Source: Own research

It can be seen that 73,9% of the sample agreed to some extent that free-time activities should complement business programs, however according to 19% of the sample it is not so important. Based on this it can be said that SMEs of the West-Transdanubian region have diffused culture.

Question 19 – *I like if the meeting takes place based on a fixed scenario* – measures the uncertainty avoidance dimension of Hofstede (1980) and Hall's (1976, 1980) dimension regarding context. Uncertainty avoidance measures the extent to which people in a society feel threatened by ambiguity (Hofstede,1980). According to Hall (1976, 1980) in high context cultures the speaker usually starts from the postulation that the listener knows everything so the listener has to 'read between the lines' whereas in low-context cultures speakers like to start from the hypothesis that the listener knows nothing so communication is straightforward. 83,7% of the respondents agree with this statement to some extent and only 11,1% of them disagree with it. 2% of the SMEs didn't answer to the question and 3,3% of them didn't know what to answer. It is obvious from the answers that in Hungarian SMEs uncertainty avoidance is high and low-context communication is preferred.

Answers to question 20 – *I expect from the partners to eliminate disturbing factors (e.g. a phone call) during the meeting* – show that Hungarian SMEs in the given region mostly manage their time in a monochronic (sequential) way as this question reflects the monochronic vs. polychronic cultural dimensions of Hall (1976, 1980). Monochronism vs. polychronism has to do with how people perceive and organize

their time (Hall, 1976, 1980). In monochronic cultures time is seen as linear so schedules are important, deadlines are fixed, being late is resented and people do one thing at a time. On the contrary in polychronic cultures, everything takes its own time by nature, people do not mind doing different things at the same time, and people are considered more important than schedules. These categories to a great extent overlap with Trompenaars' (1993) ideas regarding sequential vs. synchronic time orientation cultures.

The business culture of SMEs from the West-Transdanubian region was also measured from an individualistic point of view. According to both Hofstede (1980) and Trompenaars (1993) this dimension refers to the power of the individual and that of the group. Answering question 21 – *I like if the same person represents the company during the whole business* – 90,3% of the sample agreed and only 4,6% disagreed. It shows the individualistic features of the respondent SMEs. Nevertheless, answers to question 22 – *I like if my business partner is represented by more persons during the meeting* – show a collectivistic trend in the business culture of the given SMEs as 71,9% of the sample agreed with this attitude-statement and only 17,6% disagreed.

Examining the business culture of the SMEs operating in the West-Transdanubian region from the point of view of masculinity vs. femininity three questions had to be answered. The findings regarding question 25 – *In every meeting one party has to lose so that the other party could reach its goals* – are presented in Table 4.

Answers	Respondents
don't know	15,7%
disagree	52,3%
partly agree	19,0%
agree	9,2%
absolutely agree	2,0%
missing answers	2,0%

**Table 4 Attitudes toward masculinity vs. femininity**

Source: Own research

As the dominant values in masculine cultures are assertiveness, ambition, competitiveness, achievement and materialism, whereas in feminine cultures the dominant values are harmony, equality and solidarity; conflicts are usually solved through negotiations and compromises (Hofstede,1980), it can be said that Hungarian SMEs are rather characterized by femininity based on the above answers.

Finally answering question 27 – *I like if I can draw conclusions from my partner's behavior for its emotional attitude* – SMEs were surveyed from the point of view of Trompenaars' neutral vs. affective cultural dimension. Neutral vs. affective cultures can be distinguished based on emotions. There is no place for emotions in business in neutral cultures; however in affective cultures it is natural to display emotions during a business negotiation (Trompenaars,1993). The majority (85%) of the sample agreed that it is important to draw conclusions from the others' behavior and only 8,5% considered it to be unimportant. This means that Hungarian SMEs of the given region can be described by affective culture.

## **5. The cross-border relations of Hungarian SMEs from the point of view of culture**

Comparing the findings of OPTICOM research project with the characteristics of the Hungarian national culture it can be said that although some differences were revealed, national culture does affect the business culture of Hungarian SMEs of the West-Transdanubian region. Consequently the hypothesis is proved to be partly true.

As for Hofstede's (1980) dimensions the business culture of the respondent SMEs are characterized by high uncertainty avoidance, high power distance, a middle individualism and femininity. These results are partly similar to the results of Hofstede (2008) since he found that Hungary has a national culture with middle power distance, high uncertainty avoidance, strong individualism and masculinity. A reason for the differing results can be that in case of cross-border relations each party is aware of the other culture therefore SMEs sometimes behave based on economic and not on cultural aspects.

Taking into consideration the dimensions of Trompenaars (1993) Hungarian SMEs of the West-Transdanubian region have a diffused and affective business culture with a sequential time orientation during their cross-border relations with Austrians. The findings of Trompenaars (1993) are the same except for the sequential time orientation because he found that in Hungary time management is synchronic. This difference in this case can be the result of the use of a foreign language, the lack of trust or high transportation costs in case of fixed schedules. This latter dimension is in connection with Hall's (1976, 1980) monochronic dimension. As for his other dimension, the findings of OPTICOM research project show that Hungarian SMEs in the given region are considered to be low-context cultures. These results are absolutely the opposites of the results of Hall (1976, 1980). An explanation of this can be the use of a foreign language as a result of which a more straightforward and precise communication is needed during cross-border relations.

All in all it can be said that the business culture of Hungarian SMEs operating in the West-Transdanubian region and having cross-border business relations with Austrians are mostly similar to Hungarian national culture, however some differences can be observed supposedly due to the use of a foreign language during the meetings and negotiations and the respect of the other culture.

## **6. Conclusion**

The interest in the study of cross-border relations has grown since the past few decades. Therefore the purpose of the present paper was to illustrate the business culture of SMEs operating in the West-Transdanubian region of Hungary and having cross-border relations with Austrians to verify the paper's hypothesis that national culture considerably affects the business culture of the given SMEs. This provided the originality of the paper as Hungarian SMEs of the given region haven't been analyzed from a cultural point of view before. A reason for this can be that in Hungary the SMEs are in the periphery of cross-cultural researches due to the presence of multinational companies like Audi, Suzuki and Nokia, where the measurement of cultural differences is much easier.

After introducing the theoretical background a short description about the research and its methodology was given. After that only some of the first results of the findings were introduced so that the cross-border relations of Hungarian SMEs could be described from a cultural point of view. It was necessary to explore those cultural differences that can impede the successfulness of the SMEs of the West-Transdanubian region.

Even though the present paper revealed some important and interesting questions in connection with cross-border relations, it is of course not without limitations, as in the present stage of the research only the findings of the questionnaires are possessed. Therefore in the future interviews will have to be conducted as well to identify culture standards that can help to make the relations between the two cultures better and to get a full picture about the cross-border collaboration between Hungarian and Austrian SMEs.

## References

1. Ablonczy-Mihályka, L. (2009) Business Communication between People with Different Cultural Backgrounds. In: *Conference of the International Journal of Arts and Sciences*, Proceedings in CD-ROM, 1(19), 121-129.
2. Falkné Bánó, K. (2008) *Kultúraközi kommunikáció. Az interkulturális menedzsment aspektusai*. Budapest, Perfekt Kiadó.
3. Fukuyama, F. (2007) *Bizalom*. Budapest, Európa Könyvkiadó.
4. Hall, E. T. (1976) *Beyond Culture*. New York, Double Day.
5. Hall, E. T. (1980) *Rejtett dimenziók*. Budapest, Gondolat.
6. Hofstede, G. (1980) *Culture's Consequences: International Differences in Work-Related Values*. Beverly Hills, Sage Publications.
7. Hofstede, G. and Bond, M. H. (1988) The Confucius Connection: From Cultural Roots to Economic Growth. *Organizational Dynamics*, 16, 5-21.

8. Hofstede, Geert and Hofstede, Gert J. (2008) *Kultúrák és szervezetek. Az elme szoftvere*. Pécs, VHE Kft.
9. House, R, Javidan, M., Hanges, P., and Dorfman, P. (2002) Understanding cultures and implicit leadership theories across the globe: an introduction to project GLOBE. *Journal of World Business*, 37, 3-10.
10. Huntington, S. P. (1993) The Clash of Civilizations? *Foreign Affairs*, 72(3), 22-49.
11. Huntington, S. P. (1999) *A civilizációk összecsapása és a világrend átalakulása*. Budapest, Európa Kiadó.
12. Sims, R. L. (2009) Collective versus Individualist National Cultures. Comparing Taiwan and U.S. Employee Attitudes Toward Unethical Business Practices. *Business & Society*, 48(1), 39-59.
13. Topcu, Katalin (2005) *A kulturstandard-kutatás elmélete és gyakorlata magyar-osztrák menedzser-interakciókban: egy magyar szempontú elemzés*. Unpublished Ph.D. dissertation. Budapesti Corvinus Egyetem.
14. Trompenaars, F. (1995) *Riding the Waves of Culture*. London, Nicholas Brealey Publishing.

# A System Dynamics Methodology for the Modelling of Innovation Clusters

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The unique competitive advantage of innovation clusters lies within the linkages and interdependencies which are developed among networked actors of an entrepreneurial ecosystem. While they were introduced two decades ago by Michael Porter, the concept of innovation clusters is still a controversial issue that has provoked debates regarding their merit within the academic and policy-making communities. Often, ambiguities and the difficulty in assessing the output of clusters' performance have questioned the validity of the concept. To that effect, system dynamics (SD), a simulation-based technique which has been proven quite successful in policy-making and strategy decision-making, could be employed to model the feedbacks that both promote and limit growth. Such modelling could provide important managerial insights about the merit of innovative reforms and structural changes towards a more robust and sustainable economic environment.

Despite its success record, SD has been employed in the past only infrequently to model innovation clusters' activity. Under this context, and motivated by the desire to support analytical research on innovation, in this work we intent: (i) to propose a new methodological approach for the structuring of innovation clusters within the confines of the globalized environment, and (ii) to propose a first-effort generic SD methodological framework that could assist governmental authorities, regulators and

managers in designing and adopting effective policies for innovation clusters' development.

## **1. Introduction**

In recent years, and due to the contemporary worldwide recession, the idea of highlighting regional competencies and establishing innovation clusters arose again as a means to foster economic development and to stimulate productivity and entrepreneurial growth. Indicatively, the recent EU's Commission has instituted initiatives towards the adoption of the European Cluster Memorandum and the establishment of the European Cluster Observatory (European Commission, 2008). Moreover, President Obama requested more than a US \$100 million from the federal government to support regional innovation clusters and associated business incubators for the fiscal year 2010 (Sallet, Paisley and Masterman, 2009), while he announced the 'Greater Philadelphia Innovation Cluster' initiative, which represents a groundbreaking form of inter-agency and interdisciplinary collaboration (US Department of Energy, 2010).

The term 'cluster' as coined by Michael Porter (1998) refers to: 'A geographically proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities'.

During the last decades, there have been identified regions with striking economic performance, which are perceived as innovation cluster exemplars such as the Cambridge ICT cluster in East Anglia - Cambridgeshire that employs 42,000 people (Hansen and Serin, 2010). Nevertheless, the concept of innovation clusters is still characterised by high ambiguity while its popularity and attractiveness led to the unquestionable adoption of the relevant terminology within the policy-making lexicon. However, governmental authorities, regulators and managers often regard innovation clusters quite academically believing that the introduction of the term into their political agendas could automatically improve regional financial performance. As a

result, their interest on the issue has mainly been spent on theoretical analyses rather than applied policy measures (Hudson, 2003).

A main drawback in understanding the development and functionality of innovation clusters is the lack of analytic tools that could monitor the performance of the applied cluster policy at a strategic level. The strategic perspective of innovation clusters stems from the fact that agglomerations of businesses and institutions develop in an organic manner following an ongoing procedure (Carayannis and Bakouros, 2010). Consequently, it is worthwhile to systematically understand the structural and functional characteristics of innovation clusters. To that effect, analytic mathematical models are of great interest in order to support the strategic development and to measure the contribution of innovation clusters towards economic and social prosperity.

Respectively, in this manuscript we aim to provide a state-of-the-art critique to innovation clusters considering the pressures posed by globalisation, and propose appropriate, rather generic, policy measures. In addition, we motivate the usage of SD as an approach to model and understand the behaviour of innovation clusters. Towards the SD approach, the objectives of this research are: (i) to review the employability of SD towards the modelling of innovation clusters' activity, and (ii) to propose a first-effort generic SD methodological framework for modelling the performance of a conceptual innovation cluster.

The rest of the paper is organized as follows. In Section 2, we discuss the impact of globalization on clusters' viability and we provide policy recommendations with reference to the clusters' development. In Section 3, we present the outcomes of a brief literature review towards the existing modelling approaches of innovation clusters. Section 4 presents the theoretical background of system dynamics as a simulation tool. In Section 5 we provide a short introduction to our model by referring to the theoretical framework that underlines the conceptual cluster under study. Furthermore, we refer to the most important variables and to the assumptions which we consider in our SD approach. In Section 6 we specify the SD model of our problem with regards to the causal loop diagram, the stock and flow diagram and the simulation results of three applied scenarios. The last Section sums-up with conclusions and future perspectives of our research.

## **2. Globalization and Cluster Performance**

In addition to the existing debate about the merit of clusters, recent studies claim that global competition appears to be weakening the benefits of the firms participating in clusters (The Economist, 2011).

Below, two cases supporting these claims are presented. The first case concerns the clusters located at the southern part of Italy. In this area more than a 100 clusters have been developed since 1845 including silk, footwear, clothing and other types of cluster activities. Through the years, many of these clusters have become less competitive and they are now in the edge to losing their competitive advantage (The Economist, 2011). Clear signs are the fragmentation of production and outsourcing abroad that have weaken the networks on which these clusters were structured. The major cause of this phenomenon is the emergence of global competition which is expressed as a side effect of the unfair competition from China where regulations are lax and tariffs and duties are significantly lower than those in Italy.

A second case from Europe's Centre for Economic Policy Research questions whether clusters contribute to the innovation capacity that is developed in specific geographical areas. More precisely, the analysis of 1,604 companies in the five largest Norwegian cities found that regional and national clusters are 'irrelevant for innovation' (Powell, 2011). The research revealed that the international relationships, and not the interactions within the local cluster, affected positively the firms' ability to innovate. In fact, it was observed that the existence of just one new international partner improved a firm's odds of successfully introducing new ideas by 26 per cent.

The debate concerning clusters is still ongoing and has attracted the interest of diverse academic disciplines. Rapid changes in the global economy and the difficulty in assessing the outcomes of the applied cluster policies and strategies yield, to some extent, the reported controversial issues. However, the significance of clusters is irrefutable, bears important advantages and fosters competitiveness of local economies.

Various researchers referred to the idea of 'virtual clusters' about a decade ago (Passiante and Secundo, 2002; Kaufmann, Lehner and Tödting 2002). Virtual clusters comprise of firms in distant geographical locations which are linked via electronic

networks and develop cluster characteristics (Passiante and Secundo, 2002). To that extent, Bathelt, Malmberg and Maskell (2004) supported the development of ‘global pipelines’ that will allow the communication between major firms and institutions operating in different localized clusters. Thus, today innovation clusters in their virtual form are identified as a new supporting policy for innovation processes that yields corresponding benefits for the collaborating partners (Bathelt and Turi, 2011).

The above literature review along with the study of a significant number of clusters such as the ICT cluster in Stockholm, the biotechnology cluster in Scotland and the software consultancy in Oslo (Karlsson, 2008), lead to an up-to-date synthesis of the following strategic recommendations for successful cluster development:

- It is dictated by global economic trends to primarily redefine clusters as a functional rather than as a spatial concept.
- It is imperative to view clusters within a global context and not as merely strict local knowledge agglomerations of regional stakeholders.
- It is crucial to identify that the viability of innovation clusters can be enhanced by combining physical with virtual links to promote interaction that provide flexible access to unique, distant resources.
- It is needed to establish ‘global pipelines’ as channels of direct communication between spatially scattered significant cluster firms. This will secure the competitive advantages of regional clusters as a means of knowledge transfer in local and non-local settings.
- It is worth to reach some level of consensus on definitions and typologies of clusters.
- It is recommended to develop analytical tools and suggest quantitative indicators in order to measure the performance and the interactions that are generally subsumed among combined clusters.

### **3. Cluster’s Modelling: Literature review**

In general, the literature concerning analytic models that capture and describe the performance of innovation clusters is quite limited. The difficulty in developing descriptive mathematical expressions concerning cluster development lies within the nature of clusters. Clusters develop in an organic manner and the specifications of a

specific location affect greatly the growth and the maturity stage of clusters that are difficult to be imitated elsewhere (Carayannis and Bakouros, 2010).

The quantitative scientific research over innovation clusters is mainly restricted to case studies that are based on thorough econometric surveys and extensive questionnaires. Afterwards, it is common that the yielded results from the above procedure are analyzed through ANOVA or other statistical methods. The major outcome is the drawing of theoretical models about innovation clusters that merely consist generic, theoretical frameworks for policy makers.

According to Godin (2006), the first framework that was developed to understand the relation between science and technology to the economy is the 'linear model' of innovation. The origin of the model is unclear and it is rather taken for granted (Godin, 2006). However, there are indications that the model originates from Bush (1945), who published a report that was requested by President Roosevelt in 1944 in order to enhance military security and ensure the ongoing future of the scientific research in the U.S. after the end of the World War II (Zachary, 1999). By the time, the need to promote a more proactive role in supporting innovation stimulated the study of the interactions among the stakeholders of the entrepreneurial ecosystem. This induced the incubation of the 'chain linked model', a model that better captures the dynamic perspectives of the innovation processes (Silva and Dergint, 2006). However, the first holistic model to apprehend the complexity of a collaborative net among companies and other institutions was the 'Systemic Innovation Model' (OECD, 1999).

Additionally, there have been developed specific indexes and indicators that analyze the performance of innovation clusters. Indicatively, Fingleton, Iglioni and Moore (2005) gathered corporate data and managed to generate a model to represent the growth of the employment rate within Great Britain for the 1991-2002 period. To a further extend, Maggioni and Riggi (2006) provide some simple, absolute and relative statistical indexes which are used to measure industrial clusters on the grounds of geographical distribution.

Recently, there have been developed many econometric and other statistical analyses to examine the aggregations of firms belonging to a specific industry. Breschi (2008) leverages the Poisson process and provides a simple model that incorporates the relationship between patenting and R&D by region. Furthermore, at an enterprise level,

Padmore, Schuetze and Gibson (1998) describe the 'cycle model' as a framework to provide a platform for discussions regarding innovation processes within clusters. Cowan, Jonard and Özman (2004) have developed a simulation model for assessing the impact of simple networks of knowledge in relevance to the growth of network industries. Another relevant study is that of Jia, Liu and Xie (2010) who leveraged the 'Cellular Automaton model' to analyze the diffusion of innovation in industrial clusters.

From a system dynamics perspective, innovation cluster modelling only recently has become a subject of scientific research. However, the existing studies are restricted only to simple parametric models and the provided analyses are based on the variation of single parameters. Meanwhile, the literature review documents the lack of comprehensive SD models regarding innovation clusters. Contrarily, the available SD models only refer to independent moduli of innovation cluster models ignoring the complex nexus of interrelations between the model's factors.

Milling (2002) realized that the complex factors which characterize innovation pose a great obstacle for managers and proposed SD as the appropriate tool to examine the non-linear nature of innovation issues. To a greater extent, very recently Kunc (2011) proposes the use of SD for innovation analyses, not only at an industrial level, but at the product and organisational level as well. Lin, Tung and Huang (2006) applied the system dynamics methodology to explore the factors which are affecting the industrial cluster effect in order to determine the industrial competitive advantage.

Concluding, the research reveals that the output of clusters cannot be modelled comprehensively based on theoretical or other empirical studies that examine the behavioural patterns of innovation agglomerations. Apparently, research must be based on real data to develop models that will include endogenous, exogenous and relational determinants which are involved in the development pattern of an innovation cluster.

#### **4. System Dynamics: Theoretical Framework**

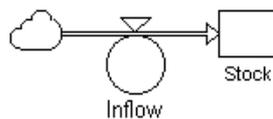
System dynamics is a simulation methodological tool which is appropriate to analyse and understand the development and the behaviour of complex systems over time.

System dynamics approach was developed in 1956 by MIT Professor Jay Forrester. Originally, the tool was used by Forrester (1961) to examine the instable employment environment in General Electric (GM) while over the years the SD tool was employed to conduct simulations of diverse scientific and engineering systems (Forrester, 1969). According to Roberts (1978), the feedback control characteristics of the SD approach render it to be the appropriate tool for decision-making at the strategic level regarding a wide range of problems, from managerial and socioeconomic to organisational ones.

The core concepts of SD are feedbacks, causal loop diagrams and stock and flow maps. Feedback loops and structures are necessary because systems rarely exhibit linear behaviour due to the interactions among the physical and institutional configuration of the systems. Feedback structures are fundamental because they capture the real patterns or modes of systems' behaviour as they dynamically evolve through the time.

Causal loop diagrams are used in order to capture the mental models which managers conceive of a system. Except for the latter remark, causal loop diagrams assist modellers in representing the feedback structures of a system. In a causal diagram, arrows describe the causal influences among the variables of the system (Sterman, 2000). Each arrow is assigned a polarity that indicates the relation between dependent and independent variables. A positive (+) polarity denotes that the effect changes towards the same direction as the cause (reinforcing feedback). On the other hand, a negative (-) polarity denotes that the effect changes towards the opposite direction of the cause (balancing feedback).

Finally, the dynamic behaviour of a system arises when inflows are accumulated in stocks (Figure 1). Stocks provide the system with memory, thus enabling the disequilibrium dynamics in systems (Sterman, 2000).



**Figure 1: Example of a simple stock and flow structure. [Source: Sterman, 2000]**

## 5. The Generic Conceptual Innovation Cluster Under Study

In this section, we present the model development of a conceptual innovation cluster as a first-effort generic attempt in our research. Specifically, we assume that the factors that affect the development of the conceptual cluster are the cluster's growth environment, the government policy and the provided infrastructure to support the firms of the cluster.

To capture the performance of the conceptual innovation cluster we employ the cluster size which determines the following output parameters: overall financial benefit to society, employment and generated technological innovations. To investigate these variables and parameters, we created a 'Base Model' and the mathematical considerations of the model are presented in Table 1.

<i>Initial number of cluster firms</i>	:	<i>8 firms</i>
<i>Initial number of new firms attracted</i>	:	<i>0</i>
<i>Initial number of training labour</i>	:	<i>1,000 people</i>
<i>Initial number of experienced labour</i>	:	<i>500 employees</i>
<i>Cluster growth rate</i>	:	<i>0.001</i>
<i>Human resources fraction</i>	:	<i>0.5</i>
<i>Investments' fraction</i>	:	<i>0.1</i>
<i>Land (physical area) availability</i>	:	<i>10,000 hectares</i>

<i>Occupied land area per firm</i>	: 30 hectares
<i>Cluster financial return per month</i>	: 5,000 euro
<i>Employee's generated economic value per moth</i>	: 1,000 euro
<i>Labour attraction rate</i>	: 0.5
<i>Unemployment fraction</i>	: 0.5
<i>Training period</i>	: 90 days
<i>Training fraction</i>	: 0.4
<i>Working time per employee</i>	: 1,825 days
<i>Employee exit fraction</i>	: 0.3

**Table 1: 'Base Model' parameters**

❖ *Decision Variables*

Cluster's Growth Environment: To create a prosperous environment for the establishment of a cluster, there are needed appropriate governmental initiatives. Favourable regulative and financial conditions will foster the development of an initial cluster.

Government Policy: There was an effort to include in our model the government policy, because it constitutes a major factor for the development of an appropriate growth environment for clusters. According to Porter (2000), governments need to improve the general macroeconomic and microeconomic environment in order to

‘facilitate cluster development and upgrading’. In our model we assume that government policy determines three ratios, bureaucracy, investment environment and human resources capabilities through the national education system.

Infrastructure Development: The development of an innovation cluster is further influenced by the available infrastructure. This includes land availability to host the firms, the necessary training and research facilities to develop the appropriate mental capacity to support the clusters’ activities, the required research facilities and the available laboratory equipment.

#### ❖ *Outputs of the System*

Cluster Size: The size of the cluster is characterized by the total number of the firms which are members of the cluster. The cluster is established based on an initial number of participating firms. Through the time, and as the significance of the cluster increases, new firms are attracted to the cluster and only few of them are finally incorporated into the cluster. In addition, there is provided an exit rate to represent the firms that leave the cluster. The resource limitation is represented by land availability as a physical quantity. We consider that each firm utilizes the same land area.

Overall Financial Benefit: The financial contribution of the cluster to the society is simply assumed to be an aggregation of the economic contribution of employees, the value of the generated technological innovations and the cluster’s intangible value.

Employees: We assume that all employees who intend to work in the cluster are inexperienced and unskilled. A training period is a major pre-requisite for all potential employees. Every worker who succeeds in the training procedure is hired to a firm of the cluster. We assume that the working positions are homogeneously distributed, meaning that there is no discrimination among the responsibilities of each working position.

Technological Innovations: In this simple model that we provide, we measure technological innovations as the number of the granted patents within a given period.

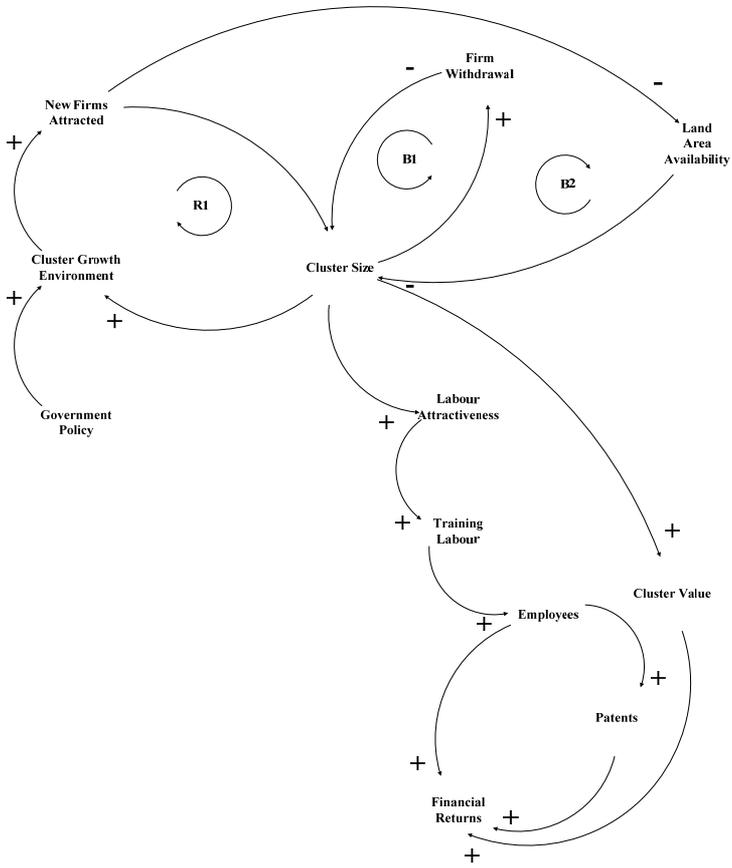
As this is a first-effort approach to leverage SD modelling of innovation clusters, it is naturally characterized by a number of rather simplistic assumptions. To begin with, in our model we do not take into consideration the different maturity stages of the participating firms. We suppose that firms simply enter and leave the cluster. What is more, there are no considerations about the initial investment capital and the firms' entrepreneurial risk involved in participating in a cluster. Further, educational institutions and research centres are not considered herein. A more descriptive model could also include the employees' working positions along with a relevant compensation system. Furthermore, we suppose that the salary of the workers is the same with the salary paid in other industries and thus it does not affect the attractiveness of new labour. Finally, we did not consider political instability, inflation rates, operational costs or other financial elements.

## **6. The System Dynamics Model**

In this section we presented the various components of the developed modelling and simulation analysis for the innovation cluster under study.

### ***6.1 Causal Loop Diagram***

In Figure 2, the appropriate causal diagram illustrates the correlation of the factors and the variables that specify the behaviour of the reviewed conceptual innovation cluster.



**Figure 2: Causal loop diagram of the conceptual cluster**

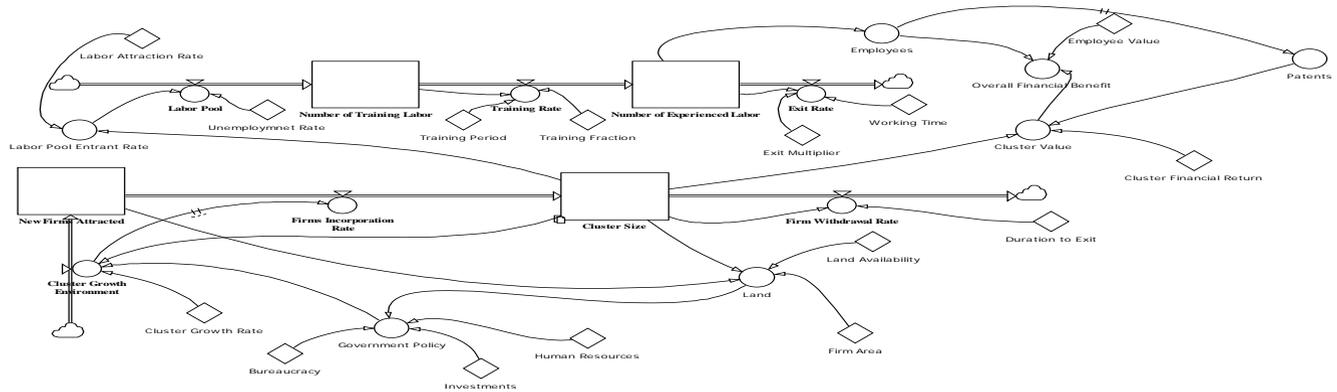
To begin with, the size of the cluster is positively related to the cluster attractiveness for new firms. This is denoted by the reinforcing cause and effect loop R1. In addition, the balancing loop B1 explicates that the withdrawal of firms from the cluster reduces the size of the cluster. Moreover, the balancing loop B2 explains that limitation on the total land area availability (as a physical quantity) negatively affects the cluster size. This assumption lies within the fact that the value of the land increases as the total availability of land is restricted. To a further extent, high land price inevitably reduces the growth potential of a cluster.

Likewise, the causal loop diagram dictates that the government policy can create favourable conditions that in the long run can lead to augmented cluster attractiveness for potential corporate entrants. On the other hand, inadequate government policy restricts the cluster's growth potential. It is important to state that by inadequate government policy we do not refer to extensive bureaucratic regulations. Rather, we assume that a comprehensive policy framework can provide the necessary stimuli for the successful development of innovation clusters.

Furthermore, the cluster size is positively correlated to the attractiveness of new labour. Thus, the number of the labour that participates in the training procedure increases resulting in an increased number of employees in the cluster and a higher economic benefit. Finally, the greater the numbers of trained and skilled employees, the more patents are granted and thus the positive effect on the economic output increases further.

## ***6.2 Stock and Flow Cluster Model***

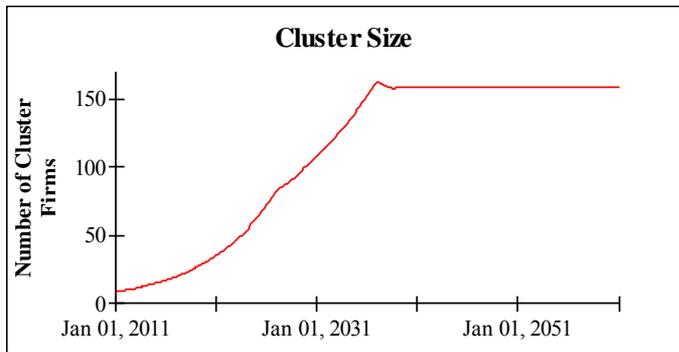
While other researchers study myopically various components of a cluster (Teekasap, 2009) we aim at providing a rather comprehensive model. The relative stock and flow diagram of the conceptual cluster under study is exhibited at Figure 10 along with all its associated variables and parameters.



**Figure 10: Stock and flow diagram of the conceptual innovation cluster under study**

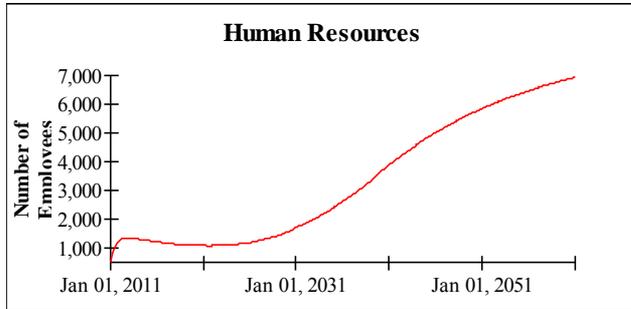
### 6.3 Model Simulation

In the simulation process, we examine the evolution of the cluster for the next 50 years. In our simulation, we assume a ‘Base Model’ with initial parameter values as tabulated in Table 1. The simulation yielded the results displayed in Figures 3-6. We can observe that Figure 3 resembles the S-shaped empirical development pattern of a cluster that was first described by Maggioni and Riggi (2006). In this pattern three main stages of cluster development are recognized: the birth / take-off stage, the golden age, and the decline or maturity stage.



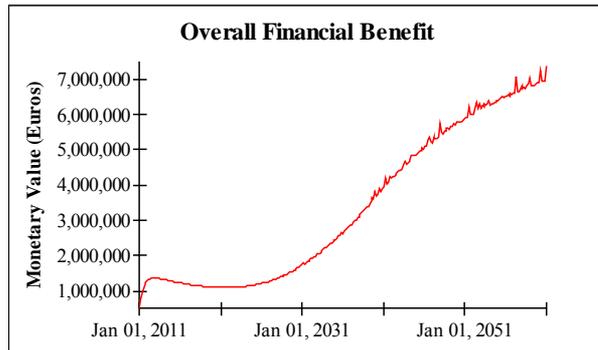
**Figure 3: Cluster size evolution pattern**

Regarding the human resources, we assume that the cluster possesses the necessary training facilities and that the government has enhanced the development of research institutions to educate potential entrepreneurs and scientists. The existence of such facilities reduces the oscillations that could appear, especially during the initial period.



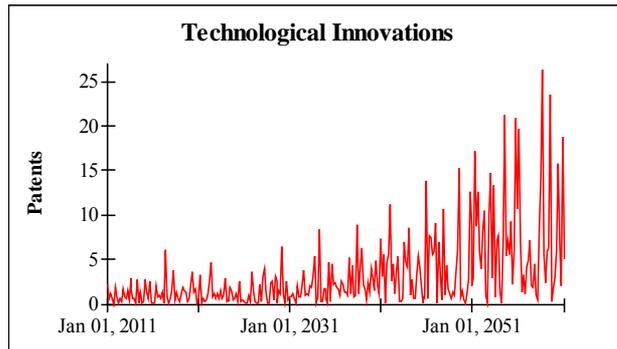
**Figure 4: Human resources evolution trend**

With reference to the financial benefits of the cluster to the society, we assumed a fixed intangible value for the cluster and each employee for their research contribution to the scientific community. We did not consider sales of other trade operations.



**Figure 5: Innovations cluster's financial contribution evolution trend**

Finally, for the yielded patents we used a delay function due to the research effort that is required to perform a new scientific discovery based on an approach of Georgiadis (2006) towards the development of a production system. We assume that knowledge is aggregated by the time, justifying the increased number of the technological innovations at the end of the corresponding planning period.

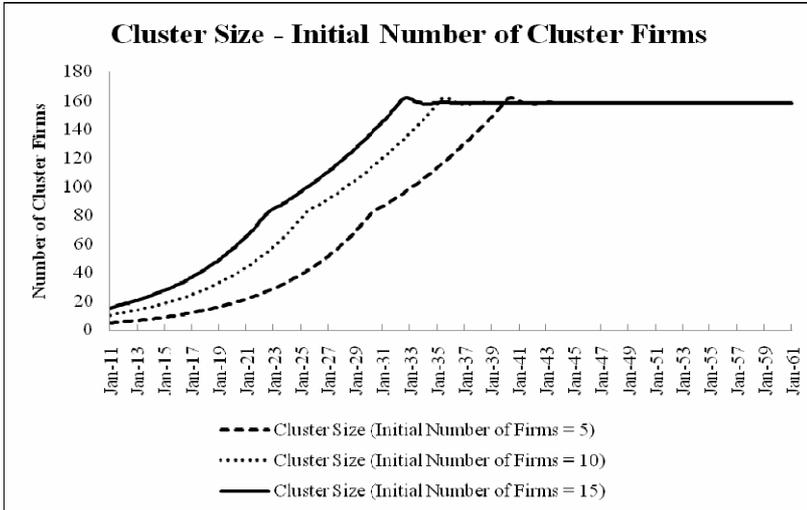


**Figure 6: Yielded patents evolution trend**

In our simulation, we are interested in the analysis of the cluster's performance. However, according to the causal loop diagram, the outcomes are directly related to the cluster's size. For that reason, we examine few indicative factors based on Porter (2000) that indirectly affect the outputs of clusters' operations. For our simulations we used the 'Base Model' settings. To understand the effect of each parameter, we modified the value of each examined variable at a time and we observed the relevant results according to the three scenarios described below.

#### Scenario 1: Initial Size of the Cluster

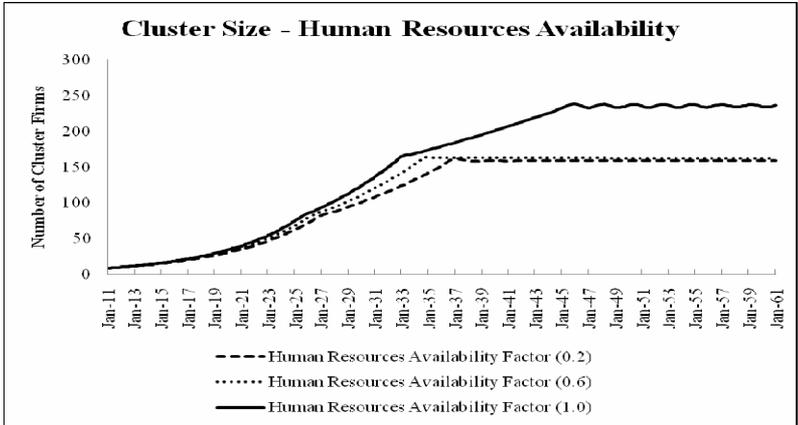
It is shown that the greater the initial number of the firms that participate in the cluster, the faster the growth of the cluster to its maximum size is (Figure 7).



**Figure 7: Effect of the initial number of the cluster’s firms to the overall cluster size**

Scenario 2: Human Resources

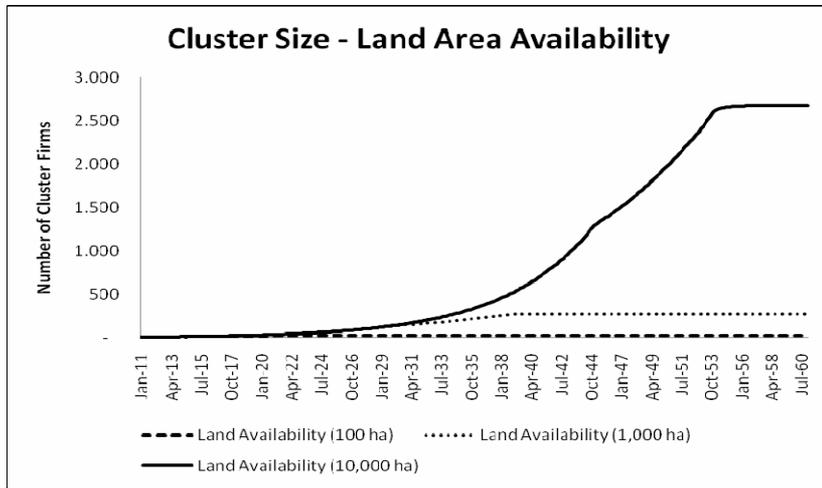
The availability of adequate human resources (i.e. educated and experienced potential employees) has a significant effect on the size of the cluster. The number of available scientists and entrepreneurs increases the size of the cluster (Figure 8).



**Figure 8: Effect of the human resources availability to the overall cluster size**

Scenario 3: Land Availability

The simulation reveals that the total land area availability affect positively the development of the cluster size similarly to the development of a new industrial area (Georgiadis, 2006). The observed trend is intuitively sound; however we are rather sceptical about the magnitude of the effect (Figure 9). It is expected that a very large number of participating firms in a cluster will endanger the operational stability of a cluster due to the increased complexity of the corporate network.



**Figure 9: Effect of the land area availability to the overall cluster size**

## 7. Conclusions and Future Research

The need to view clusters from a functional rather than spatial aspect is well documented. Emerging global economies imply that clusters need to be internationally oriented to realize their true potential.

In this manuscript we present the development of a first-effort SD simulation model of a conceptual innovation cluster. Our simulations reveal that cluster size is affected by the initial number of firms which form the cluster. The initial number of firms determines the growth rate of the cluster through the time. In addition, governmental policy towards the land availability is critical for the development of the clusters. In particular, the more available land space, the more the clusters can expand and the

more firms can be hosted. In addition, human resources determine the growth level of the cluster within reasonable ranges. Then, the cluster size determines the extent of the outputs, such as the financial benefits to the society, employment levels and the granted patents.

Our future research aims to focus on specific real-world cluster cases and leverage existing data to develop relevant robust, dynamic models. Finally, we intend to further consider other crucial factors, such as tax incentives, funding (seed money, venture capitals) that have not been examined in the past and could yield insightful managerial insights and policy-making recommendations.

## References

1. Bathelt, H., Malmberg, A. and Maskell, P. (2004) Clusters and knowledge: local buzz, global pipelines and the process of knowledge creation in progress. *Progress In Human Geography*, 28(1), 31-56.
2. Bathelt, H. and Turi, P. (2011) Local, global and virtual buzz: The importance of face-to-face contact in economic interaction and possibilities to go beyond. *Geoforum*, Article In Press, Elsevier.
3. Breschi, S. (2008) Innovation-specific agglomeration economies and the spatial clustering of innovative firms. In: C. Karlsson (eds) *Handbook of Research on Clusters: Theories, Policies and Case Studies*. Cheltenham, Edward Elgar. p. 167-192
4. Bush, V. (1945) Science, the endless frontier. *U.S. Government Printing Office*. Washington. Office of Scientific Research and Development.
5. Carayannis, E. and Bakouros, Y. (2010) *Innovation and Entrepreneurship*. Thessaloniki, Sofia.
6. Cowan, R., Jonard, N. and Özman, M. (2004) Knowledge dynamics in a network industry. *Technological Forecasting and Social Change*, 71(5), 469-484.
7. European Commission (2008). Clusters on Europe's innovation and competitiveness radar. *Enterprise & Industry Magazine* [online], 6th

- May 2008. Available from: [http://ec.europa.eu/enterprise/magazine/articles/innovation/article\\_6920\\_en.htm](http://ec.europa.eu/enterprise/magazine/articles/innovation/article_6920_en.htm) [Accessed 25th April 2011].
8. Fingleton, B., Iglori, D. and Moore, B. (2005) Cluster Dynamics: New Evidence and Projections. *Regional Science*, 45(2), 283-311.
  9. Forrester, J. W. (1961) *Industrial Dynamics*. New York, Productivity Press.
  10. Forrester, J. W. (1969) *Urban Dynamics*. Cambridge, MIT Press.
  11. Georgiadis, P (2006) *System Dynamics Theory*. Thessaloniki, Sofia.
  12. Godin, B. (2006) The Linear Model of Innovation: The Historical Construction of an Analytical Framework. *Science, Technology & Human Values*, (31)6, 639-667.
  13. Hansen, P. and Serin, G. (2010) *The European ICT clusters - an overview of selected ICT clusters in Europe*. Lund: Øresund IT.
  14. Hudson, R. (2003) Global production systems and European integration: De-regionalising, re-regionalising and re-scaling production systems in Europe. In: J. Peck and H. Yeung (eds) *Remaking the Global Economy: Economic-Geographical Perspectives*. London, Sage Publications. p. 216-230.
  15. Jia, W., Liu, L. and Xie, X. (2010) Diffusion of technical innovation based on industry-university-institute cooperation in industrial clusters. *The Journal of China Universities of Posts and Telecommunications*, 17(2), 45-50.
  16. Karlsson, C. (2008) *Handbook of Research on Innovation and Clusters*. Cheltenham, Edward Elgar Publishing.
  17. Kaufmann, A., Lehner, P. and Tödtling, F. (2002) *Effects of the Internet on the spatial structure of innovation networks*: Proceedings of the 42th ERSA Conference 2002 held at the University of Dortmund. Dortmund, University of Dortmund.
  18. Kunc, M. (2011) System Dynamics and Innovation: A complex problem with multiple levels of analysis. Nottingham, Warwick Business School.
  19. Lin, C. H., Tung, C. M. and Huang, C. T. (2006) Elucidating the industrial cluster effect from a system dynamics perspective. *Technovation*, 26(4), 473-482.
  20. Maggioni, M. A. and Riggi, M. R. (2006) *High-Tech Firms and The Dynamics of Innovative Industrial Clusters*: Proceedings of the 2006

- DRUID Summer Conference held at the Copenhagen Business School. Copenhagen, Copenhagen Business School.
21. Milling, P. M. (2002) Understanding and managing innovation processes. *System Dynamics Review*, 18(1), 73–86.
  22. OECD (1999) *Managing National Innovation Systems*. Paris, OECD Publishing.
  23. Padmore, T., Schuetze, H. and Gibson, H. (1998) Modelling systems of innovation: An enterprise-centered view. *Research Policy*, 26(6), 605-624.
  24. Passiante, G. and Secundo, G. (2002) *From geographical innovation clusters towards virtual innovation clusters: the Innovation Virtual System*: Proceedings of the 42th ERSA Conference 2002 held at the University of Dortmund. Dortmund, University of Dortmund.
  25. Porter, M. E. (1998) Clusters and the New Economics of Competition. *Harvard Business Review*, 76(6), 77-90.
  26. Porter, M. E. (2000) Location, Competition, and Economic Development: Local Clusters in a Global Economy. *Economic Development Quarterly*, 14(1), 15-34.
  27. Powell, N. (2011) Business clusters ‘irrelevant’ for innovation, study finds. *The Globe and Mail* [online], 18th March 2011. Available from: <http://www.theglobeandmail.com/report-on-business/economy/economy-lab/daily-mix/business-clusters-irrelevant-for-innovation-study-finds/article1947722/> [Accessed 25th April 2011].
  28. Roberts, E. B. (1978) *Managerial Applications of System Dynamics*. Cambridge, Pegasus Communications.
  29. Sallet, J., Paisley, E. and Masterman, J. *The Geography of Innovation: The Federal Government and the Growth of Regional Innovation Clusters*. Washington DC, Science Progress.
  30. Silva, M. A. and Dergint, D. E. (2006) *Innovation Models: An Entrepreneurial Point of View*: Proceedings of the 3rd International Conference on Production Research held at the Pontifical Catholic University of Parana. Curitiba, Pontifical Catholic University of Parana.
  31. Sterman, J. (2000) *Business Dynamics: Systems Thinking and Modelling for a Complex World*. Boston, McGraw-Hill Higher Education.

32. Teekasap, P. (2009) *Cluster Formation and Government Policy: System Dynamics Approach*: Proceedings of the 27th International System Dynamics Conference. Albuquerque, The System Dynamics Society.
33. The Economist (2011) Italian industry: Clusters flustered - Global competition seems to be weakening the benefits of being in a cluster. *The Economist* [online], 14th April 2011. Available from: <http://www.economist.com/node/18560669> [Accessed 30th March 2011].
34. US Department of Energy (2010) Penn State to Lead Philadelphia-Based Team that will Pioneer New Energy-Efficient Building Designs. *Department of Energy* [online], 24th August 2010. Available from: <http://www.energy.gov/news/9380.htm> [Accessed 30th March 2011].
35. Zachary, P. G. (1999) *Endless Frontier: Vannevar Bush, Engineer of the American Century*. Cambridge, MIT Press.

# Investigating the determinants of non-performing loans in the Romanian banking system: an empirical study with reference to the Greek crisis

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This paper aims to investigate the determinants of non-performing loans in the Romanian banking sector by means of time series modelling. It is motivated by the hypothesis that macroeconomic-cyclical indicators, monetary aggregates, interest rates, financial markets' and bank-specific variables have a role to play on the non-performing loans in the Romanian banking system. Using monthly series that span from December 2001 to November 2010, we provide evidence based on data that covers both the booming period and the recent financial crisis. Given the significant presence of the Greek banks in Romania, the novelty of the paper lies in the introduction of variables that proxy the Greek debt crisis. We examine the existence of

a potential transmission channel to the Romanian banking system by investigating the impact of the Greek crisis to the Romanian non-performing loans.

Our findings indicate that macroeconomic variables, specifically the construction and investment expenditure, the inflation and the unemployment rate, the country's external debt to GDP and M2 jointly with Greek crisis-specific variables influence the credit risk of the Romanian banking system. These results have several implications for policymakers, bank regulators and managers given that the most recent published stress tests on the Romanian banking system are based on end-2008 data.

**Keywords: Macroeconomic credit risk, Non-Performing Loans, Romanian banking system, Greek crisis, Greek banking system**

## **1. Introduction**

The study of financial sector stability has become the cornerstone of modern macroeconomic policy. The recent global financial crisis highlighted the importance of appreciating financial institutions' vulnerabilities in the context of managing credit risk. The key motivation for this paper is to improve our understanding of the credit risk determinants by focusing on the Romanian banking system while casting a vigilant eye on potential contagion effects from neighbouring countries. This is particularly important given that the Romanian financial system is dominated by foreign-owned commercial banks. Among them, the Greek banks' subsidiaries have a substantial presence as they hold 30.7% of aggregate foreign capital while they account for the second largest market share in the Romanian banking system (NBR, 2009). Therefore, any attempt of exploring the deterministic factors of the Romanian banks' credit risk should not be limited solely on endogenous variables of the respective economy.

Using time series modelling techniques, this paper empirically investigates the determinants of ex-post credit risk. The latter is reflected on the loss loan provisions to

total loans ratio for the Romanian banking system. Related to a growing body of literature, the purpose of the study is to offer an insight into the factors that determine the quality of the loan portfolio of Romanian banks. In this direction, it utilizes a broad dataset that spans from Dec-2001 to Nov-2010. The explanatory power of macroeconomic, Romanian bank-specific, monetary, interest rates and financial markets' variables is investigated. The key contribution of the paper lies in the fact that it introduces proxies for the Greek debt crisis and the subsequent Greek banks' financial distress. The aim is to examine a potential transmission channel or spillover effects to the Romanian banking system. As the twin Greek crises unfold, any repercussion for the neighbours is possibly the most important issue in the minds of policy makers, regulatory bodies and bankers. Furthermore, the time series utilised include both the booming period as well as the downturn following the financial crisis as well as the ensuing manifestation of Greece's structural weaknesses.

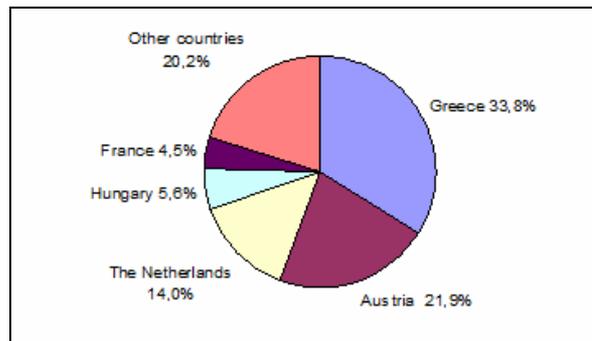
The paper is organized as follows. Section 2 presents an overview of the Romanian banking system while Section 3 presents the empirical literature that attempts to delineate the determinants of loan portfolio quality. Section 4 briefly discusses the non-performing loans deterministic factors in the Romanian context while Section 5 examines the empirical results, potential limitations and proposes future research direction. The paper concludes with Section 6.

## **2. Overview of the Romanian Banking System**

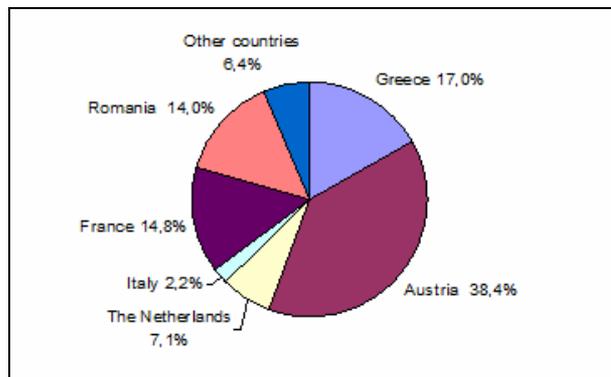
The Romanian economy has evolved from a long history of defaults on sovereign debt, periods of high inflation and banking crises. During the Great Depression period, many local and foreign banks in Romania collapsed or experienced heavy runs (Reinhart and Rogoff, 2009). The crisis historical database indicates that in 1933 the redemption for domestic and foreign debt was suspended. In the Post-War II period the country experiences a debt crisis during the 1980s. Romanians were forced to live through cold winters with almost no heat and factories had to cut back production because of limited electricity.

Barisitz (2005) indicates that until 1998 the Romanian banking system was overwhelmingly state-owned. Credit institutions granted loans to an un-restructured real sector dominated by inefficient state-owned factories, subject to 'quasi-automatic' refinancing by the central bank of Romania, which conducted an accommodative monetary policy. Thus, there is no surprise in the fact that bad loans were a serious problem for all economies in the SEE region due to inherited legacies but also to continuing lending practices (Bonin et al, 2009). In Romania, the dominant state owned banks accumulated large portfolios of defaulted loans and required massive capital injections from the government. Non-performing loans peaked at 58% in 1998. Severe macroeconomic shocks led to severe banking crises and sustainable economic growth resumed only after these crises were resolved.

By the end of the 1990s the Romanian government carried out important legal reforms through the new central bank law. Retrospectively, 1999 proved to be sort of structural turning point for the Romanian economy as the authorities carried out the first privatizations of major Romanian banks. Overall, given the size of the country, the Romanian financial sector offered an impressive growth potential for foreign strategic investors. The pie charts presented on Figures 2.1 and 2.2 depict the current situation in the Romanian banking system.



**Figure 2.1 Structure of credit institutions' share capital by country of origin (H1:2010)**  
Source: National Bank of Romania



**Figure 2.2 Market share of credit institutions by structure of shareholding (H1:2010)**  
 Source: National Bank of Romania

The following years up to the burst of the global financial crisis, were characterised by rapid credit growth. The latter was thought to be part of the ongoing process of financial deepening given that the credit to GDP ratio still remains at relatively low levels. On the other hand concerns were raised whether the economy was experiencing a credit boom, a situation where credit expands at an unsustainable pace.

It has been argued that the presence of foreign banks in Romania has increased the efficiency of financial intermediation and the availability of credit to the real economy. Yet, there are indications that financial stress originating in Euro area-based parent banks may have been transmitted to Romania. The lending survey of the National Bank of Romania (NBR) indicates that the demand for consumer loans throughout 2010 decreased considerably while non-financial companies' demand for short-term loans slightly increased. The risk profile of almost all industries rose with the riskiest sectors being construction and real estate, reflecting the adverse impact of the global financial crisis and the economic downturn.

IMF (2010) indicates that the outlook for the Romanian banking system remains negative, driven mainly by the tough economic conditions in the country following a severe recession in 2009. The deteriorating operating environment in Romania was characterised by a contracting economy and rising unemployment. In particular, the tough economic conditions in the country are the main source of concern for Romanian banks given the sharp increase in the level of non performing loans. Furthermore the high proportion of foreign currency lending mainly to households elevates their credit risk profile. Another issue of concern is the stressed liquidity in the banking system as reflected in liquidity ratios<sup>1</sup>.

The NBR (2010) stability report highlights that the GDP dynamics remain at negative territory while the fiscal deficit widened considerably. It appears that the crisis was deeper than expected, the economic contraction is sharp and the recovery seems much more protracted. Banks' risk appetite seem to follow a pro-cyclical nature as lending standards tightened further given the worsening quality of banks' loan portfolio and the decline in the non-government loan growth rate attributed to the contraction of both supply and demand. Looking ahead, Romanian banks' financial metrics are likely to remain under pressure amid still challenging macroeconomic prospects.

### **3. Empirical Literature Review**

As the story unfolds, a survey of the relevant academic literature is presented. The survey covers empirical findings on the relation between macroeconomic variables and the loan portfolio quality or credit risk<sup>2</sup>. Many studies investigate the factors that

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<sup>1</sup> The loan-to-deposit ratio is at high levels reflecting the Romanian banks' reliance on wholesale - parent bank funding. However, the commitments made by parent banks to support their subsidiaries as part of the Vienna Initiative provide some comfort.

<sup>2</sup> The framework for studying the impact of macroeconomic variables or the business cycle on credit risk is represented by two competitive theories. The first one stresses that credit risk is pro-cyclical whereas the second one defends the countercyclical view.

induce financial crises by examining potential links between bank-specific variables and macroeconomic factors.

Delving into the specifics of the crises literature, Hausmann and Gavin (1995) argue that excessive credit growth is a primary factor behind banking crises as usually it reflects a decline in the credit standards. Authors examine the macroeconomic factors that contributed to banking crises in Latin America during the 1990s. Findings indicate that interest rates, expected inflation, terms of trade, domestic income, bank loans' growth and the monetary and exchange rate regime are important constraints on loan servicing capacity. Similar results can be found in Diamond and Rajan (2005). In a study of liquidity shortages and banking crises, authors suggest that liquidity and solvency problems interact and can cause each other, making it hard to determine the cause of a crisis. Demirgüç-Kunt and Detragiache (1998) theorize that banks face insolvency due to falling asset values when bank borrowers are unable to repay their debt as a result of adverse shocks to economic activity. The authors estimate the macroeconomic determinants of banking crises using a multivariate logistic model for a large sample of developing and developed countries during 1980 - 1994. Inflation and the real interest rate were found to be positively associated with a banking crisis, whereas the GDP has an inverse relationship. Hardy and Pazarbaşıoğlu (1998) focus on identifying the macroeconomic and financial conditions which are indicative of banking distress. The main finding was that the likelihood of banking system distress was largely in accord with declining economic growth. Further, capital inflows and credit expansion to private sector, associated with rising consumption and real interest rates, typically precedes banking crises. Sharp cyclical movements in the inflation rate, adverse trade shocks and declines in real effective exchange rate also tended to precipitate banking crises.

An increasingly popular method of assessing financial sector vulnerabilities is the macro stress-testing approach. The term refers to a range of techniques used to assess the vulnerability of a financial system to 'exceptional but plausible' macroeconomic shocks. Relevant studies examine the link between banks' loan losses, or non-performing loans and macroeconomic factors. The most common approach in similar studies involves estimating on historical data the sensitivity of banks' balance sheets to adverse changes in macro fundamentals. Then the estimated coefficients can be used to simulate the impact on the financial system of possible stress scenarios in the future.

The focus is on credit risk, which by large represents the most significant risk faced by banking systems worldwide.

Two main strands of the literature can be identified in this area, building on the seminal works by Wilson (1997) and Merton (1974). Merton (1974) models initially the response of equity prices to macro fundamentals and then maps asset price movements into default probabilities. On the other hand, Wilson's (1997) framework allows the direct modelling of sensitivity of default probabilities in various industrial sectors to the evolution of a set of macroeconomic variables. Studies analysing the macroeconomic determinants of banks' loan losses or non-performing loans include Pesola (2001) for the Nordic countries, Kalirai and Scheicher (2002) for Austria, and Delgado and Saurina (2004) for Spain. Typically, these studies find that loan loss provisions are negatively related to GDP growth and positively related to interest rates. Kalirai and Scheicher (2002) estimate a time series model of aggregate loan loss provisions in the Austrian banking system as a function of an extensive array of macroeconomic variables. Results indicate that a rise in short rates, a fall in business confidence, a decline in the stock market and a decline in industrial production have an impact on the loss loan provisions.

Since the seminal work of Sims (1980), the VAR approach to empirical investigation of monetary policy shocks has gained momentum. Several studies have used the VAR models to investigate the macro-fundamentals transmission mechanism in the United States and other countries<sup>1</sup>. These models include various macroeconomic factors, ranging in a number from two to five depending on the country. In some cases variables more directly related to the creditworthiness of firms are added, such as measures of indebtedness; in other cases, market-based indicators of credit risk, such as equity prices and corporate bond spreads, are also used<sup>2</sup>. Foglia's (2008) survey indicates that researchers increasingly adopt models that are more flexible and easier to use, such as VARs and other strictly statistical rather than structural models. The estimation process normally requires the selection of a set of macroeconomic and

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<sup>1</sup> These models are used in the studies developed at the Central Banks of the UK, Japan, Spain, the Netherlands, and at the European Central Bank.

<sup>2</sup> Introducing market variables such as interest rates, foreign exchange rates, and equity and real estate price indices, into credit risk models is a way of explicitly integrating the analysis of market and credit risks.

financial variables that, according to economic theory and empirical evidence, affect credit risk. In this regard, variables such as economic growth, unemployment, interest rates, equity prices and corporate bond spreads contribute to default risk (Foglia, 2008). Blaschke et al. (2001) propose applying the VAR methodology to investigate the impact of inflation, nominal interest rate, output (real GDP) and the changes in terms of trade to the ratio of NPLs to the total loans or total assets of the banking sector. The coefficients of the regressions provide an estimate of the sensitivity of loan performance to macroeconomic factors. Similarly, Hoggarth et al (2005) focus on the link between loan write-offs and the UK output gap, retail and house price inflation, nominal short-term interest rate and the real exchange rate. Delgado and Saurina (2004) apply cointegration techniques to study the short-term and long-term time series properties of the relationship between either loan loss provisions or nonperforming loans and a set of macroeconomic indicators such as GDP growth, unemployment, and interest rates. Gambera (2000) employs bivariate VAR models to investigate the impact of regional and national macroeconomic variables on the loan portfolio quality (NPLs and loan delinquencies) of a large sample of US banks. The explanatory variables include the unemployment rate, farming income, housing permits, state annual product, bankruptcy filings and car sales. With the exemption of car sales, all variables were found significant predictors of bank asset quality.

Baboucek and Jancar<sup>1</sup> (2005) apply an unrestricted VAR<sup>2</sup> model to investigate the effects of macroeconomic shocks on the loan quality of the Czech banking sector using monthly series from 1993 to 2006. Using the NPL ratio as an indicator of loan quality, authors find robust causal relationships to exist with loan quality and a number of macroeconomic variables based on impulse response analysis. Unemployment, CPI inflation and credit risk shock were found to have negative influences on the NPL ratio, confirming theory and related empirical studies. However, other macroeconomic variables, such as the loan stock, real exchange rate and M1 used as a proxy for GDP failed to concur with economic theory as innovations in all variables except M1 improved loan quality. An accelerating NPL ratio, high unemployment and inflationary

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<sup>1</sup> Concerns were raised about the NPL ratio being a lag indicator of loan quality, that is, its deterioration is usually evident at the point when problem emerges.

<sup>2</sup> The VAR model is based on transmission that includes the following nine endogenous variables: the real effective exchange rate, exports, monetary aggregate M2, imports, aggregate bank loans to clients, the unemployment rate, the consumer price index, the domestic real three-month interest rate and the share of non-performing loans in aggregate bank loans to clients.

tendencies were cited as important early warning indicators of credit portfolio deterioration.

Several recent papers (Boss, 2002; Virolainen, 2004) analyse the impact of macro fundamentals on the credit quality of banks' debtors using the framework of Wilson (1997). Virolainen (2004) estimates a macroeconomic credit risk model for the Finnish corporate sector over the period 1986 to 2003<sup>1</sup>. The SUR model results suggest a significant relationship between corporate sector default rates and key macroeconomic factors including GDP, interest rates and corporate indebtedness. As in most studies, the estimated model is employed to analyse corporate credit risks conditional on current macroeconomic conditions, ie stress testing. The findings are in line with previous studies using observed bankruptcies for default rate measures.

Following Virolainen (2004) methodology, Trenca & Benyovszki (2008) estimate a macroeconomic credit risk model for the Romanian corporate sector over the period 2002 to 2008. Results suggest a significant relationship between industry-specific default rates and macroeconomic factors such as GDP growth rate, consumer price index, real interest rate charged on loans, the exchange rate and industry-specific indebtedness. Boss (2002) estimates a macroeconomic credit risk model for the aggregate corporate default rate to analyse stress scenarios for the Austrian banking sector. Findings suggest that industrial production, inflation, the stock index, the nominal short-term interest rate, and the oil price are the most important determinants of corporate default rates.

A leading role in the development of aggregate stress tests has been performed by the IMF, in cooperation with the World Bank. In 2005 the IMF conducted for the first time in Greece a financial sector assessment program (Kalfaoglou, 2006). Similar to Boss (2002), Kalfaoglou (2006) emphasises that credit risk remains the most important risk in the Greek banking sector. Despite the satisfactory stress tests' results, author indicates that the cross-border expansion of banks increases their vulnerability to external shocks which, in turn, requires better and more intensive risk management practices. The IMF's (2010) Romanian stress tests indicate that the financial system is particularly vulnerable to the effects of further slowing or reversal of capital inflows

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<sup>1</sup> A distinguishing feature of the study is that the sample period used to estimate the model includes a severe recession and a banking crisis.

and associated downward pressure on the exchange rate. The stress tests were based on data to end-June 2008. Thus, the exercise takes no account of developments in macro-financial variables and balance sheets since then. Furthermore, it does not explicitly assess the impact of the sharp slowing of lending, either as a result of tightening credit standards or in response to reduced funding from foreign parent banks.

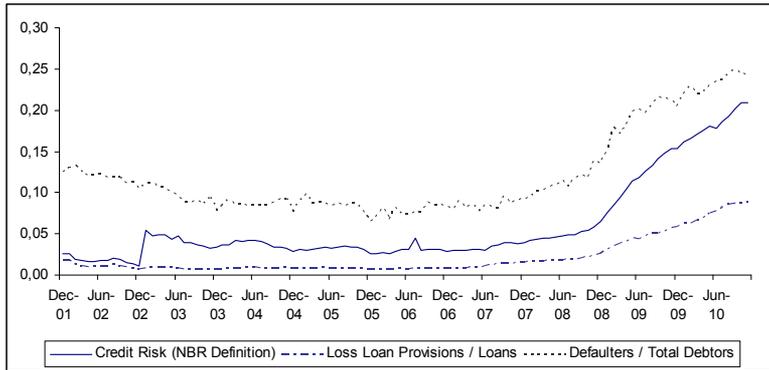
The abovementioned studies, in general, corroborate theoretical postulates with respect to the macroeconomic influences on loan portfolio quality and, consequently, on banking sector stability. In effect, good economic conditions seem to be commensurate with good loan quality measured by either the non performing loans' ratio or loan loss provisions.

#### **4. Deterministic Factors of Non-performing Loans in Romania**

It is evident from the body of literature reviewed that the major hypothesis under test is that credit risk is sensitive to macroeconomic, cyclical, financial markets and bank-related factors. Initially the variables' selection of this study is based on the indicators presented in the related studies to ensure comparability of empirical results.

Credit risk is the risk that a counter-party or obligor will default on their contractual agreement. Financial institutions typically cover expected losses through appropriate provisioning. This paper follows the provisioning approach, that is the credit risk is defined as the ratio of loss and doubtful loans to total loans (LLP ratio). Several studies have used non-performing loans, loan loss provisions or composite indices as the metrics to assess the vulnerability of the financial system over time. Alternative indicators considered in this study to measure the credit quality of the Romanian banking system are the credit risk ratio as defined by the NBR and the ratio of total loan defaulters to total debtors. The empirical results when credit risk or the ratio of defaulters to debtors were utilised were poor and inconsistent. There appear to be structural breaks in the time series that could not be attributed solely to the financial crisis. Most probably, such breaks arise as a result of changes in monetary regulation or reporting standards. All three Romanian credit quality metrics considered are

presented in Figure 4.1. Clearly, all metrics present an increasing trend, thus, signalling deterioration in the quality of Romanian credit portfolio.



**Figure 4.1 Credit Risk in the Romanian Banking System**

Source: NBR & Authors' calculations

The increasing level of provisions (LLP ratio) apparent in Figure 4.1 reflects the declining asset quality of the Romanian banking system. IMF (2010) reiterates that credit deterioration is the primary risk to the banking sector. A sharp rise in non performing loans coupled with weak growth prospects and exchange rate depreciation impairs the ability of households and corporations to service their debts, especially their foreign currency debt.

The macroeconomic – cyclical indicators used are the GDP<sup>1</sup>, the unemployment rate, the consumer price index, the foreign direct investment stock and monthly flow.

<sup>1</sup> The seasonally adjusted gross domestic product in nominal terms has been used. The interpolation method used to transform the macroeconomic data frequency is the quadratic (match average) method. Results should be considered as suggestive since observing a series at a lower frequency provides fundamentally less information than observing the same series at a higher frequency.

Furthermore, the dataset includes the investment expenditure (gross fixed capital formation), the construction<sup>1</sup> expenditure, the total consumption and the household consumption and the foreign trade captured by the country's imports and exports. The current account is also supposed to play a significant role as for many developing economies workers' inward remittances save the current account from becoming an unmanageable deficit. A sharp contraction or reversal of inflows could threaten the financial stability through a drying up of credit to the private sector, resulting in a slump of economic activity and an increase of loan defaults. The 'bad habit' of debt growth is incorporated in the dataset as its dynamics may deteriorate the real economy and subsequently the credit risk.

Monetary aggregates considered are the M1, M2 and M3 with the first two being particularly important as they also proxy the GDP, thus, avoiding potential problems arising from the low frequency series of the latter.

Any deterioration in market confidence is expected to lead to downward pressure on the exchange rate, upward pressure on interest rates, and huge declines in equity values with the overall result being a deterioration of the Romanian credit portfolio quality. In this respect, the time series employed as financial markets' indicators are the BET index and the BET-C index of the Bucharest Stock Exchange and the over-the-counter market index (RASDAQ). A sharp decline in the stock prices may signal adverse market perceptions of the health of the financial market. The Dow Jones Euro Stoxx 50 equity index is considered as an indicator of the Eurozone economic prospects and markets' expectations. Through the price of oil, a commodity is introduced in the dataset that its price volatility influences almost all economies in the SEE region. A sharp weakening of the Romanian national currency against the euro would have significant adverse consequences for household and business balance sheets, leading to a substantial increase in non-performing loans (IMF, 2010). Being a euro candidate country the exchange rate (Ron/Eur) is expected to be of significance. Furthermore, a substantial proportion of the loans granted to households and corporations are denominated in euros. Similarly, the cost of borrowing in such loans is determined by

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<sup>1</sup> Anecdotal information suggests that the property market in Romania has weakened considerably after the global financial crisis. A sharp contraction in capital inflows may lead to a major slump and unemployment in the construction sector, with adverse consequences for non performing loans.

the Euribor reference rate whereas the respective cost in the local currency loans is primarily determined by the Robor rate.

The determinants of credit risk should not be sought exclusively in macroeconomic factors. Therefore, a broad set of Romanian aggregated bank-specific indicators is employed. Inevitably, credit plays a vital role in private sector led growth. Thus, the growth rate of credit is expected to influence the LLP ratio. The loans to deposits ratio serves as a liquidity proxy and gives indications of the ability of the banking system to mobilize deposits to meet credit demand. In addition, it highlights the banks' risk attitude. The Romanian banking system leverage ratio is considered to validate the moral hazard hypothesis, that is, low capitalisation of banks may lead to an increase in non performing loans.

As already mentioned a substantial part of the Romanian banking system assets is owned by Greek banks. As their "parents" suffer funding shocks due to the Greek sovereign debt turmoil, the local subsidiaries, albeit typically highly liquid and well capitalized (NBR, 2010) face considerable risk of coming under pressure. There is no doubt that the Greek banking system was negatively affected by the Greek fiscal crisis. And banking crises<sup>1</sup> have historically been contagious as a crisis in one country can cause a loss of confidence in neighbouring countries. The novelty introduced in this paper is the inclusion of indicators related to the Greek fiscal crisis, the Greek banking system and the Athens Stock Exchange. The main reasons for selecting the specific variables presented on Table 1 in the Appendix are:

- a. The rapid expansion of Greek banks in Romania has resulted in imbalances and funding deficits
- b. The unfolding of the Greek debt crisis is evident in the spread differential between the Greek and German government bonds yields
- c. The deteriorating asset quality of the Greek banking system together with the strained liquidity marked by the over-reliance in financing by the European Central Bank

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<sup>1</sup> We refer to Type II banking crises as defined by Reinhart and Rogoff (2009). That is a milder banking crisis also known as financial distress where there are no runs, closure or large-scale government assistance of an important institution that marks the start of a string of similar outcomes for other financial institutions.

- d. The Greek banks offer(ed) investors a good emerging market exposure platform. Consequently, their SEE prospects are reflected in their shares performance in the Athens Stock Exchange

De Haas and Van Lelyveld (2006) study of foreign banks in Eastern Europe indicates that there is a significant negative relationship between home country economic growth and host country credit. Thus, the hypothesis under investigation is whether the Greek crisis and banking system dynamics matter for the Romanian non-performing loans.

## 5. Model Estimation

The estimation process requires the selection of a set of variables that, according to economic theory and empirical evidence, affect the Romanian credit risk. Among alternative specifications, the preferred one is selected on the basis of the consistency of variables with economic theory and on the specifications' goodness of fit. Similar to Kalirai & Scheicher (2002) and Boss (2002) approaches, initially univariate regressions are performed to identify the indicators with explanatory power on the LLP ratio of the Romanian banking system. Prior to this, all the series were tested for unit roots by ADF tests. When a series was found to be integrated of order one (I(1)) or two (I(2)), the first or the second difference of the variable was taken in order for the series to become stationary (see Table 2 in the Appendix).

Thus, the monthly changes of the LLP ratio are regressed against each indicator included in Table 1 in the Appendix. The univariate regressions are expected to provide fertile soil for identifying the factors that may have an impact on the dependent variable. In the following stage, these factors are used as a starting point for multivariate modelling approaches.

The LLP ratio is regressed against each indicator at time  $t$  but also at all lags up to one year. The rationale behind this intensive but also extensive approach is to capture any lagged effect of each explanatory variable on the LLP ratio, suggesting that loan provisions appear on each banks' statements quite after the problem emerges. The results of the bivariate estimations, for the significant variables only are summarised in Table 5.1. The expected signs for the regression coefficients of the individual explanatory variables are also provided in Table 5.1. A positive (negative) sign means

that theory confirmed by empirical evidence suggests that the respective factor  $x_t$  (or  $x_{t-s}$ ) is expected to present a positive (negative) influence on the changes in the LLP ratio.

In accordance to the main body of literature discussed, an extensive array of the macroeconomic – cyclical indicators is found to be significant on the loan portfolio quality of the Romanian banking system. These are the construction expenditure, the investment expenditure proxied by the gross fixed capital formation, the total gross external debt to GDP, the total consumption, inflation and unemployment rate and the trade balance. Furthermore almost all significant indicators bear the expected sign. The inflation rate produces the highest t-statistic as well as the best fit of all univariate regressions. Thus, the hypothesis that inflationary pressures drive up the non performing loans cannot be rejected. None of the financial markets indicators appear to play a significant role on the dependent variable. Despite the rapid growth of the trading volumes on the Bucharest Stock Exchange in recent years as well as on the RASDAQ, liquidity remains poor on both exchanges. In general, volatilities do not have any statistically significant impact on the dependent variable. Considering the interest rate indicators at current level but also lagged by a quarter, it seems that the sole significant parameter is the 3-month Euribor rate. The negative sign of the latter does not support the expectation that credit risk increases in line with interest rates owing to higher borrowing costs. The significant loan (credit) growth rate provides support to the hypothesis that ‘lending booms often end in tears’.

The steep credit expansion which occurred during the period under consideration up to the burst of the financial turmoil, poses the question whether the quality of loans granted during this period was accurately evaluated by the banking system (Louzis et al, 2010). Given the ambiguity apparent in the theory regarding the indicator’s expected sign, we opt to drop the credit growth rate from the final model. Both monetary aggregates help explaining the variability in the LLP ratio with the expected sign. Interestingly, four indicators that proxy the Greek crises dynamics appear significant. Apparently, the bivariate results indicate that some spillover effects of the Greek debt and banking distress have already started to manifest themselves.

	Regression on current factor $x_t$					Regression on lagged factor $x_{t+s} (s=1, \dots, 12)$				
	Expected Sign	Coefficient	t-stat	p-value	R <sup>2</sup>	Coefficient	t-stat	p-value	R <sup>2</sup>	lag (s)
<b>Macroeconomic &amp; Cyclical Indicators</b>										
Construction	-	-0.005	3.15	0.002	0.09	-0.004	2.58	0.011	0.06	12
Gross Fixed Capital Formation	-	-0.005	3.13	0.002	0.09	-0.003	2.33	0.004	0.04	12
Total Gross External Debt/GDP	-	-0.002	4.59	0.000	0.17	0.02	3.90	0.000	0.13	3
Unemployment	+	-0.001	1.98	0.049	0.04	-0.001	3.75	0.000	0.13	12
Total Consumption	-	-0.005	2.66	0.009	0.06	-0.004	2.26	0.026	0.05	1
CPI	-	-0.001	5.67	0.000	0.23	-0.001	4.86	0.000	0.19	3
Trade Balance	-	-0.001	2.64	0.01	0.06	-0.001	3.06	0.003	0.09	12
<b>Monetary Indicators</b>										
M1	-	-0.006	2.99	0.003	0.08	-0.005	2.68	0.008	0.07	3
M2	-	-0.013	2.96	0.004	0.08	-0.01	2.50	0.014	0.06	3
<b>Interest Rates</b>										
Euribor3-month	+	-0.003	3.51	0.000	0.10	-0.003	3.46	0.000	0.11	3
<b>Romanian Banking System Indicators</b>										
Credit	+/-	-0.03	5.16	0.000	0.2	-0.02	4.10	0.000	0.14	3
<b>Greek Fiscal Crisis &amp; Banking Indicators</b>										
Loss Loan Provisions/Total Loans	+	0.46	2.66	0.009	0.06	0.40	2.10	0.040	0.04	3
Spread Greek-German 10-year bond	+	0.01	3.24	0.000	0.09	0.01	3.00	0.000	0.08	3
Greek 10-year bond	+	0.01	2.45	0.021	0.05	0.01	3.50	0.000	0.10	1
ECB RelianceIndex I	+/-	0.04	1.71	0.090	0.03	0.07	3.87	0.000	0.13	3

Only the significant indicators are presented due to space limitations. The respective results for all indicators of the dataset are available upon request.

**Table 5.1 Results of the Univariate Regressions**

Building on the bivariate regressions' results, we introduce a multi-factor credit risk model to trace the development of the loan portfolio quality on the basis of several indicators. Broadly, the criteria for an indicator's inclusion in the multivariate time series model and the model's specification are:

- a. The indicator in the final specification of the model should bear the correct sign
- b. Ideally, at least one significant indicator from each broad group should be included in the model
- c. The model should be as simple as possible as simple models are easier interpreted and communicated
- d. All variables included in the multifactor model should be significant both separately and jointly, at least at the 10% level of significance
- e. Last but not least, the standard battery of residuals' tests should indicate no pathological issues, ie multicollinearity

After extensive work, the time series model that satisfies the restrictions set previously is presented in Table 5.2.

Therefore, the model's specification indicates that, taken simultaneously, the CPI, the unemployment rate, the construction and the gross fixed capital formation lagged by one year, the ratio of gross external debt to GDP lagged by a quarter, M2 together with the Greek banks' credit risk and the spread differential between the Greek and the German sovereign debt lagged by one month explain approximately 66% of the variability of credit risk in the Romanian banking system. The results indicate that the loss loan provisions in the Romanian banking system can be explained by macro fundamentals and Greek twin crises' indicators. The explanatory power of the Romanian macroeconomic and monetary indicators is in broad agreement with the related studies. This study is also motivated by the hypothesis that Greek-specific variables influence the Romanian banking system loan quality or alternatively the Greek crises matter for the neighbourhood (Anastasakis et al, 2011). Based on the findings, this hypothesis cannot be rejected as the Romanian credit risk is responsive and more specific adversely affected towards risks coming from the neighbourhood. In other words, there is evidence that some spillover effects from the Greek crises have already started to manifest themselves indicating potential contagion risk.

Dependent Variable: Loss Loan Provisions / Total Loans (R)				
Method: Least Squares				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000523	0.000455	1.149914	0.2534
CPI	-0.000150	3.27E-05	-4.575648	0.0000
Unemployment	0.000263	8.21E-05	3.210314	0.0019
Construction	-0.003324	0.001395	-2.382667	0.0194
Gross Fixed Capital Formation (-12)*	-0.003555	0.001424	-2.495993	0.0145
Total Gross External Debt / GDP (-3)	0.012220	0.002981	4.099622	0.0001
M2	-0.008042	0.003012	-2.669805	0.0091
Loss Loan Provisions / Total Loans (GR)	0.452571	0.120102	3.768211	0.0003
Spread Greek-German bond (-1)	0.001251	0.000439	2.851450	0.0055
R-squared	0.657178	Mean dependent var		0.000852
Adjusted R-squared	0.624529	S.D. dependent var		0.001507
S.E. of regression	0.000923	Akaike info criterion		-11.04576
Sum squared resid	7.16E-05	Schwarz criterion		-10.80067
Log likelihood	522.6277	F-statistic		20.12818
Durbin-Watson stat	2.261533	Prob(F-statistic)		0.000000

\*Numbers in parentheses indicate the lag of the respective variable used in model estimation. All indicators (individually and jointly) included in the model are significant at the 1% confidence level

**Table 5.2 Regression output of the multivariate model**

It should be noted that the empirical findings presented in this study are preliminary and represent work-in-progress. Therefore, caution is required when interpreting the results. Any attempt should be done under the assumptions made and the time period considered. Further research would attempt to combine the proposed model with the VAR approach. The aim is to study the response of indicators under alternative scenarios, ie stress testing. In addition, an improved model should account for the different default risks at borrower level ie households, corporations.

Regarding the model specification, it is worth noting that a number of studies indicate that loan loss provisions and non-performing loans may be noisy proxies of credit risk in the banking sector whereas other studies debate the linear functional form of credit risk. As more data become available, the proposed recommendations combined with appropriate dealing with potential structural breaks in the series indicate our future work direction.

## **6. Conclusions**

Internationally, the number of empirical studies trying to link macroeconomic factors and the asset quality of the banking sector has been growing rapidly in recent years. Addressing the high level of nonperforming loans remains a major challenge as important post-crisis challenges remain.

In this study we used time series modelling techniques to investigate the deterministic factors of non-performing loans in the Romanian financial system; a system dominated by foreign-owned commercial banks. Credit risk is modelled in dependence of a data-intensive set of indicators ranging from macroeconomic, monetary, financial markets and interest rates to bank-specific variables. The novelty of the paper lies in the fact that it introduces proxies for the Greek debt crisis and the Greek banks' financial distress. Apart from the standard hypotheses investigated in the empirical literature, the study is motivated by the hypothesis that the Greek crises matter for the neighbourhood. Preliminary evidence suggest that macroeconomic variables, specifically the construction and investment expenditure, the inflation and the unemployment rate, the country's external debt to GDP and M2 jointly with Greek-specific variables influence the credit risk of the Romanian banking system. On the other hand, the Romanian bank-specific variables, the financial markets and interest rates indicators were not found to possess explanatory power when added to the baseline model. Based on the findings, the hypothesis that Romanian credit risk is responsive to the country's macro fundamentals is confirmed. Furthermore, there is evidence that supports the hypothesis of linking Greek-specific indicators to the quality of the Romanian loan portfolio. The Romanian non performing loans seem to be adversely affected by risks arising from the Greek twin crises.

Our findings have several implications in terms of policy and regulation. Specifically, the macroeconomic significant variables identified may serve as leading indicators of credit risk deterioration. As most SEE economies rely heavily on the financial sector in terms of growth prospects, regulators should ensure financial stability by remaining vigilant on the neighbouring countries' macroeconomic prospects and the potential contagion risk arising from the Greek banks' subsidiaries in Romania. Future work involves using alternative econometric modelling techniques (VAR, stress-testing) that account for the credit risk at borrower level.

## References

1. Anastasakis, O., Bastian, J. and Watson, M. (2011) *From Crisis to Recovery. Sustainable Growth in South East Europe*. SEESOX, University of Oxford, UK.
2. Baboucek, I. and Jancar, M. (2005) Effects of Macroeconomic Shock to the Quality of the Aggregate Loan Portfolio. *Czech National Bank, Working Paper*, 1, 1–62.
3. Barisitz, S. (2005) The Transformation of the Romanian Financial and Banking Sector. *OeNB Financial Stability Report*, 7, 88-100.
4. Blaschke, W., Jones, M., Majnoni, G. and Peria, S.M. (2001) Stress Testing of Financial Systems: an Overview of Issues, Methodologies, and FSAP Experiences. *IMF Working Paper*, 188, 2–56.
5. Bonin, J., Hasan, I. and Wachtel P. (2008) Banking in Transition Countries. *BOFIT Discussion Papers*, 12.
6. Boss, M. (2002) A Macroeconomic Credit Risk Model for Stress Testing the Austrian Credit Portfolio. *OeNB, Financial Stability Report*, 4, 64-82.
7. De Haas, R. and Van Lelyveld, I. (2006) Foreign Banks and Credit Stability in Central and Eastern Europe. A Panel Data Analysis. *Journal of Banking & Finance*, 30, 1927–1952.

8. Delgado, J. and Saurina, J. (2004) Credit Risk and Loan Loss Provisions. An Analysis with Macroeconomic Variables. *Banco de Espana Working Paper*, 12.
9. Demirgüç-Kunt, A. and Detragiache, E. (1998) The Determinants of Banking Crises in Developing and Developed Countries. *IMF Staff Papers*, 45, 81-109.
10. Diamond, D. and Rajan, R. (2005) Liquidity Shortages and Banking Crises. *The Journal of Finance*, 9(2), 615-647.
11. Foglia, A. (2008) Stress Testing Credit Risk: A Survey of Authorities' Approaches. *Bank of Italy Working Paper*, 37.
12. Gambera, M. (2000) Simple Forecasts of Bank Loan in the Business Cycle. *Emerging Issues Series*, 3, 1-27.
13. Gavin, M. and Hausmann, R. (1996) The Roots of Banking Crises: The Macroeconomic Context. *Inter-American Bank Working Paper*, 318, 1-20.
14. Hardy, D. and Pazarbasioglu, C. (1998) Leading Indicators of Banking Crisis: Was Asia Different? *IMF Working Paper*, 91, 1-32.
15. Hoggarth, G., Logan, A. and Zicchino, L. (2005) Macro Stress Tests of UK Banks. *BIS Papers*, 22, 392-408.
16. IMF (2010) Romania: Financial Sector Stability Assessment. *Country Report 10/47*, 1-66.
17. Kalfaoglou, F. (2006) Stress Testing of the Greek Banking System. *Bank of Greece Economic Bulletin*, 27, 43-62.
18. Kalirai, H. and Scheicher, M. (2002) Macroeconomic Stress Testing: Preliminary Evidence for Austria. *OeNB, Financial Stability Report*, 3, 58-74.
19. Louzis, D., Vouldis, A. and Metaxas, V. (2010) Macroeconomic and Bank-specific Determinants of Non-performing Loans in Greece: A Comparative Study of Mortgage, Business and Consumer Loan Portfolios. *Bank of Greece Working Paper*, 110, 1-41.
20. NBR (2011) Financial Stability Report 2010.
21. Pesola, J. (2001) The Role of Macroeconomic Shocks in Banking Crises. *Bank of Finland Discussion Paper*, 6.
22. Reinhart, C. and Rogoff, K. (2009) *This Time is Different. Eight centuries of Financial Folly*. Princeton University Press, Princeton.

23. Sims, C. (1980) Macroeconomics and Reality. *Econometrica*, 48.
24. Trenca, I. and Benyovszki, A. (2008) Credit risk, a Macroeconomic Model Application for Romania. *Finance & Challenges of the Future*, 7, 118-126.
25. Virolainen, K. (2004) Macro Stress Testing with a Macroeconomic Credit Risk Model for Finland. *Bank of Finland Discussion Papers*, 18.

## APPENDIX

**Table 1. The Complete Dataset**

Indicators	Definition – Interpretation	Source
<b>Credit Risk for the Romanian Banking System</b>		
Loss Loan Provisions / Total Loans (R)	Doubtful and loss loans provisions to total loans granted by credit institutions, excluding off-balance-sheet items	National Bank of Romania & Authors'
Credit Risk	Gross exposure related to non-bank loans and interest under 'doubtful' and 'loss' to total loans and interest classified related to non-bank loans, excluding off-balance-sheet items	National Bank of Romania
Defaulters / Debtors	Number of total loan debtors to total loan defaulters (legal and natural entities)	National Bank of Romania
<b>Macroeconomic &amp; Cyclical Indicators</b>		
CPI	Consumer Price Index annual rate (%)	European Central Bank
GDP	Real Gross Domestic Product	NISR & Authors'
Current Account	Current Account	National Bank of Romania
Current Account / GDP	Current Account as % of GDP	Authors' calculations

Construction	Construction sector expenditure contribution in GDP at constant terms	NISR
Gross Fixed Capital Formation	Investment expenditure contribution in GDP at constant terms	NISR
Total Consumption	Total consumption contribution in GDP at constant terms	NISR
Household Consumption	Household consumption contribution in GDP at constant terms	NISR
FDI monthly stock	Foreign Direct Investment, net, monthly	National Bank of Romania
FDI annual flow	Foreign Direct Investment, net, accumulated	National Bank of Romania
Trade Balance	Imports minus Exports (constant terms)	National Bank of Romania
Unemployment	Registered unemployment rate (%)	National Bank of Romania & European Central Bank
Total Gross External Debt	Total Gross External Debt (General Government, Monetary Authority, Banks)	National Bank of Romania
Total Gross External Government Debt	Total Gross External Debt General Government	National Bank of Romania
Total Gross External Debt Banks	Total Gross External Debt Banks (Short & Long Term)	National Bank of Romania
Total Gross External Debt / GDP	Total Gross External Debt as % of Gross Domestic Product	Auhors' calculations
Total Gross External Debt Banks / GDP	Total Gross External Debt Banks as % of Gross Domestic Product	Auhors calculations

<b>Monetary Indicators</b>		
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M1	Narrow money. Comprises currency in circulation plus overnight deposits. Also proxies Gross Domestic Product	National Bank of Romania
M2	Intermediate money. Comprises M1 plus highly liquid deposits. Also proxies Gross Domestic Product	National Bank of Romania
M3	Broad money. Comprises M2 plus marketable instruments issued by monetary and financial institutions	National Bank of Romania

<b>Interest Rates Indicators</b>		
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Euribor 1-month	Historical close, average of observations (% p.a.)	Reuters
Euribor 3-month	Historical close, average of observations (% p.a.)	Reuters
Robor 3-month	Historical close, average 3-month interest rate on operations to place funds (% p.a.)	National Bank of Romania
Robor 12-months	Historical close, average 12-month interest rate on operations to place funds (% p.a.)	National Bank of Romania
Spread differential Euribor - Robor	Euribor 3M minus Robor 3M	Authors' calculations
Romanian Long Term Bond	Average interest rate of long term Romanian government bond (% p.a.)	National Bank of Romania
German 10-year bond	Secondary market yield of 10-year German government bond	European Central Bank

Spread Romanian-German bond	Spread differential between Romanian and German long term government bond yield	Auhors' calculations
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<b>Financial Markets Indicators</b>
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BET	The Bucharest Exchange Trading index. Comprises the ten most liquid companies listed on the BSE regulated market	National Bank of Romania
BET-C	The Composite Index of Bucharest Stock Exchange. Represents the overall performance of all companies listed on the BSE regulated market	National Bank of Romania
RASDAQ	The index captures the over-the-counter market	National Bank of Romania
Dow Jones EuroStoxx50	Equity index. Indicator of economic prospects and market sentiment	DataStream
Athens Stock Exchange (General)	General Index Athens Stock Exchange (31.12.1980=100)	Bank of Greece
Athens Stock Exchange (Banks)	Banking Index Athens Stock Exchange (31.12.2005=5000)	Bank of Greece
Oil	Brent crude oil price fob in Euro per barrel	European Central Bank & Authors' calculations
Ron/Eur	Monthly average spot exchange rate on Forex market	European Central Bank
Ron/Usd	Monthly average spot exchange rate on Forex market	European Central Bank
Usd/Eur	Monthly average spot exchange rate on Forex market	European Central Bank

**Romanian Banking  
System Indicators**

Credit	Total loans granted by Romanian credit institutions	National Bank of Romania
Leverage ratio	Capital / assets. Key prudential indicator	National Bank of Romania
Liquidity ratio	Effective liquidity/Required liquidity. Measures banking system liquidity. Key prudential indicator	National Bank of Romania
Loans to Assets	Loans granted to clients (gross value)/ Total assets (gross value). Key prudential indicator	National Bank of Romania
Loans to Deposits ratio	Loans / Deposits. Proxy for liquidity	National Bank of Romania & Authors' calculations
Interest rate on loans	Average interest rate of credit institutions charged on loans to non-financial corporations and households (% p.a.)	NBR
Interest rate on deposits	Average interest rate paid by credit institutions on non-financial corporations and households time deposits (% p.a.)	NBR
Spread loan - deposit rate	Interest rate differential between loans and deposits of on non-financial corporations and households time deposits (% p.a.)	Authors' calculations

**Greek Fiscal Crisis  
&  
Banking System  
Indicators**

Loss Loan Provisions / Total Loans (GR)	Loss loans provisions to total loans granted by Greek credit institutions	Bank of Greece & Authors' calculations
Credit	Total loans granted by Greek credit institutions	Bank of Greece
Leverage ratio	Capital / assets. Key prudential indicator	Bank of Greece & Authors' calculations
Loans to Deposits ratio	Loans / Deposits. Proxy for liquidity	Bank of Greece
Greek 10-year bond	Secondary market yield of the 10-year Greek government bond	European Central Bank
Spread Greek–German bond	Spread differential between Greek and German long term government bond yield	Auhors' calculations
ECB Reliance Index I	Greek banks' financing by European Central Bank to total assets of the Greek Banking System. Proxy for the Greek Banking System distress as a result of the fiscal crisis	Bank of Greece & Authors' calculations
ECB Reliance Index II	Greek banks' financing by European Central Bank to total loans of the Greek Banking System. Proxy for the Greek Banking System 'liquidity gap'	Bank of Greece & Authors' calculations

**Table 2. Unit Root Tests of Significant Variables**

	ADF test statistic (constant)	p-value	ADF test statistic (constant & trend)	p-value	Transformation
<b>Credit Risk</b>					
Loss Loan Provisions / Total Loans (R)	-2.898*	0.049	-3.775	0.021	First differences
<b>Macroeconomic &amp; Cyclical Indicators</b>					
Construction	-7.471	0.000	-7.952	0.000	First differences logs
Gross Fixed Capital Formation	-7.573	0.000	-8.079	0.000	First differences logs
Total Gross External Debt/GDP	-3.026*	0.035	-3.228**	0.084	First differences
Unemployment	-6.024	0.000	-4.600	0.001	None
Total Consumption	-7.855	0.000	-8.247	0.000	First differences logs
CPI	-5.767	0.000	-3.320**	0.068	None
Trade Balance	-11.400	0.000	-11.398	0.000	First differences
<b>Monetary Indicators</b>					
M1	-2.648	0.008	-12.919	0.000	First differences logs
M2	-12.393	0.000	-12.590	0.000	First differences logs
<b>Interest Rates Indicators</b>					
Euribor 3-month	-4.190	0.001	-4.180	0.006	First differences
<b>Romanian Banking System Indicators</b>					
Credit	-4.246	0.000	-4.480	0.002	First differences logs

**Greek Fiscal Crisis & Banking Indicators**

Loss Loan Provisions/Total Loans	-5.093	0.000	-5.237	0.000	Second differences
Spread Greek-German 10-year bond	-3.742	0.004	-4.461	0.002	First differences
Greek 10-year bond	-2.673**	0.082	-3.387*	0.058	First differences
ECB Reliance Index I	-8.885	0.000	-9.397	0.000	First differences

\* 5% significance level, \*\* 10% significance level



**INFORMATION AND  
COMMUNICATION  
TECHNOLOGIES**

# Informal Verification by Visualisation of State-based Agents Models

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**Abstract.** Applications of biological or bio-inspired multi-agent systems often assume a certain level of reliability and robustness. Formal modelling of such systems can naturally lead to formal verification of their properties. State-based approaches to formal modelling, such as X-machines, have been demonstrated as a good candidate for modelling biological phenomena, such as social insect colonies. Formal verification may be cumbersome or even impossible to be applied on models with increased complexity and emergent behaviour. The verification of such models can be supported by observing the visual outcome of an executable simulation and comparing that with the expected behaviour of the system. Therefore, this paper introduces a mechanism for an automatic transformation of a spatial X-machine agent model into executable code for the NetLogo visual simulation environment. The rules governing the transformations and the mapping between constructs are described. We discuss the implementation and present an example of how visualisation rather than formal verification could assist the understanding of emergent properties.

**Key words:** X-machines, spatial X-machines, informal verification, spatial XMDL translation, NetLogo

## 1 Introduction and Rationale

Characterized as complex systems, biological and bio-inspired multi-agent systems (bio-MAS) can be viewed as a dynamic network of interactions and information flow. Complex systems experience dynamics in a non-linear group level [1]. Thus, even small changes within the individual agent rules might cause a huge difference in the behaviour of the system as a whole, resulting to an *emergent behaviour*. The relationship between the individual agents and the system as a whole is referred to as a *micro-level* and *macro-level*, respectively [2]. This

paper concentrates towards modelling and verification techniques that can be applied to Bio-MAS. After demonstrating the applicability of formal modelling and verification at micro-level, we also attempt to make a first step towards the verification of such systems at macro-level.

A good candidate for modelling bio-MAS is the X-machine (XM) approach [3], [4]. This formalism might be considered as an extension of Final State Machines, with the difference of having a memory and functions that operate on the inputs and the memory values. These two concepts enhance the formal representation of the behaviour of social biological colonies (ex. insects, bees) [5]. It is argued that there is an element of spatial fit that the biological colonies inhabit, but there is not any straightforward way to formally represent a position, direction or movement utilizing XMs or any other formalism in this category.

Formal verification is a process which employs formal methods to confirm that a model satisfies certain properties [6]. XM is supported by formal verification strategies [7], [8]. However, using them for the verification of emergence in bio-MAS adds a level of difficulty, especially due to the models' increased complexity and the not yet known emergent property we are looking for. Introducing visual animation as an informal verification technique, some of these requirements are covered and discovering the emergent behaviour is greatly facilitated. By visual animation we refer to: observing the visual outcome of executable simulation scenarios and comparing them with the expected behaviour of the system.

Section 2 introduces a variation of XMs, namely Spatial X-machines ( $^{sp}$ XMs), which open a way to formally represent the spatial characteristics of bio-MAS. We elaborate on the fact that visualisation rather than formal verification could assist the understanding of emergent, formally unverifiable properties (see Sect. 3). On the other hand, XMs models are not enhanced by any tool for converting their representation into a visual output. In order to improve the fidelity of an X-machine model natively, a mechanism for automatic transformation of a  $^{sp}$ XM agent model into executable code for a visual animation environment is introduced in Sect. 4. This idea is supported with a case study throughout this paper, which adds in the final discussion and conclusion of the work. The  $^{sp}$ XMs definition and the tool for automatic translation from a  $^{sp}$ XM model into a platform for visual animation are the main contribution of this work.

## 2 Modelling with $^{sp}$ X-machines

The motivation behind modifying XM to support spatial agent modelling natively is thoroughly discussed in [9].  $^{sp}$ XMs represent a variation of Stream XMs by defining additional components that allow for the specification of the current position and direction of an agent, as well as to formally specify a movement of an agent within its environment. Formally, a  $^{sp}$ XM is a 13-tuple;  $^{sp}$ XM =  $(\Sigma, \Gamma, Q, q_0, M, m_0, \pi, \pi_0, \theta, \theta_0, E, \Phi, F)$ , where:

- $\Sigma$  is an input set of symbols,
- $\Gamma$  is an output sets of symbols,

- $Q$  is a finite set of states,
- $q_0$  is the initial state,
- $M$  is an  $n$ -tuple called memory,
- $m_0$  is the initial memory,
- $\pi$  is a tuple of the current position, i.e.  $(x, y)$  when a 2D representation is considered,
- $\pi_0$  is the initial position,
- $\theta$  is an integer in the range 0 to 360, that represents a direction,
- $\theta_0$  is the initial direction,
- $E$  is a set which contains elementary positioning operations:  $e_i$  such as  $e_i : \Pi \times \Theta \rightarrow \Pi \times \Theta$ , such as direction, moving forward and moving to a specific position.
- $\Phi$  is a finite set of partial functions  $\phi$  that map a memory state, position, direction and set of inputs to a new memory state, position, direction and set of outputs:  
 $\phi: M \times \pi \times \theta \times \Sigma \rightarrow M \times \pi \times \theta \times \Gamma$ ,
- $F$  is a function that determines the next state, given a state and a function from the type  $\Phi$ ,  
 $F: Q \times \Phi \rightarrow Q$ , and

Currently we defined 3 operations  $e_1, e_2, e_3$ , such that  $e_i : \Pi \times \Theta \rightarrow \Pi \times \Theta$ , where  $\Pi$  and  $\Theta$  are the sets of possible positions and directions and  $e_1, e_2, e_3$  are functions for changing the spatial agent's direction, moving forward and moving to a specific position, respectively.

## 2.1 Case Study: The Aggressor-Defender Game

The aggressor-defender game was first introduced at the Embracing Complexity conference and revised by Bonabeau [10]. A variation of this game will serve as a case study of this work, described as follows. There exist two teams of agents randomly distributed in an environment: defenders (refer to them as *friends*) and aggressors (or *enemies*). There are three different sub-games involved:

- All the agents defend – at each turn everyone tends to position between a friend and an enemy (such as they were defending the friend against the enemy), Fig. 1 a).
- All the agents flee – at each turn everyone tries to position in a way that a friend is between themselves and an enemy (such as the friend protects them from an enemy), Fig. 1 b).
- Some agents defend while the rest of the agents flee.

A *spXM* model which demonstrates the third strategy is presented in Fig. 2. The model's states are  $Q = \{\text{DEFENDING, STAYING\_STILL, FLEEING}\}$ . There are three corresponding functions: to *defend*, to *stay* still and to *flee*. The memory stores the game strategy of the agent, an agent's friend and enemy, as well as its position and direction. The input consists of the friend's and the enemy's current positions. Finally, the output is the new position of the agent, because

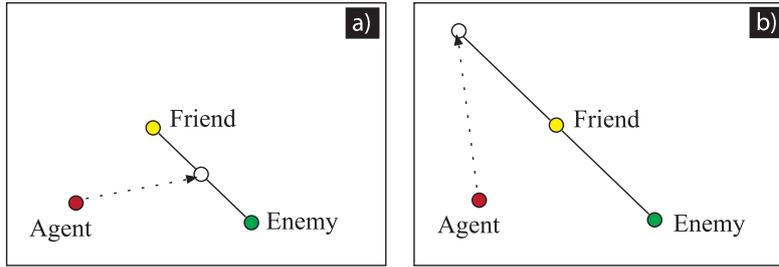


Fig. 1. Rules for playing the aggressor-defender game.

every agent outputs its position to the other agents, thus constructing a *communicating  $^{sp}X$ -machine* system [4], [11].

$^{sp}XMDL$  is the notation used to define  $^{sp}XM$ s [9] and it is modified version of XMDL (see [12], [7]) used in the standard XM. Considering Fig. 2, the function *defend* can be formed with  $^{sp}XMDL$  as follows:

```
#fun defend ((?xcor_of_friend, ?ycor_of_friend),
  (?xcor_of_enemy, ?ycor_of_enemy)),
  ((?strategy, ?friend, ?enemy),
  (?my_xcor, ?my_ycor), ?curr_direction) =
  ((?new_xcor, ?new_ycor), ((?strategy, ?friend, ?enemy),
  (?new_xcor, ?new_ycor), ?curr_direction))
where
?new_xcor <- (?xcor_of_friend + ?xcor_of_enemy)/2
and ?new_ycor <- (?ycor_of_friend + ?ycor_of_enemy)/2.
```

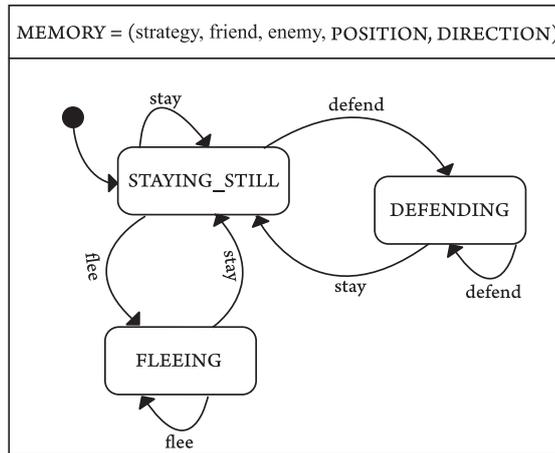


Fig. 2.  $^{sp}XM$  model of the aggressor-defender game.

### 3 Visual Animation as an Informal Verification Technique

The aggressor-defender case looks like a pretty simple system. Its model presented in Fig. 2 is fairly straightforward too. In order to inspect whether the system satisfies some properties one might choose to apply Model Checking [13], [14]. The issue here is what are the system properties? Utilizing formal verification techniques can only *guarantee* that the existing specification satisfies *a subset* of the system’s requirements and not all of them. In order to overcome this occurrence, we propose to utilise visual animation as an informal verification technique in parallel to formal verification. We believe that the visual output of a system helps in discovering omitted requirements, as well as resolving unclear ones, which in turn leads to more reliable and robust systems.

Assuming that there is a way to arrive from a formal model to an executable counterpart, the output of the aggressor-defender system is striking (Fig. 3). Initially considered as a “pretty simple system”, it emerged with some unpredictable globally observed patterns:

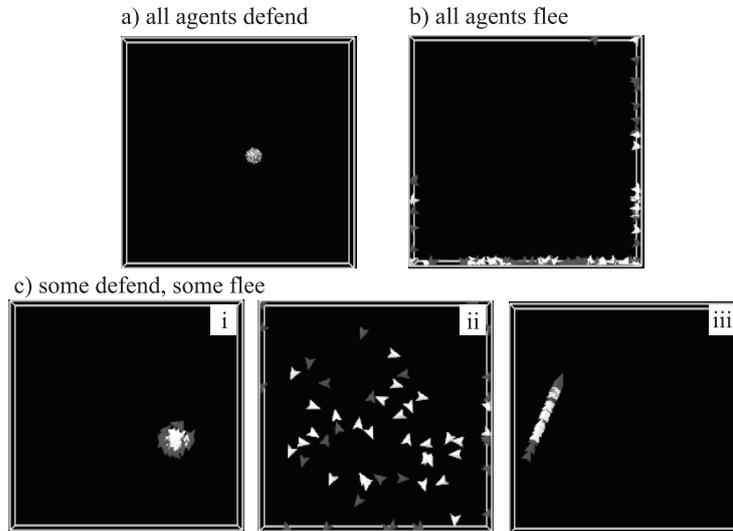
- The model in which all the agents defend (Fig. 3 a), behaved as all the agents quickly collapsed into a tight knot,
- The model in which all the agents flee (Fig. 3 b), behaved as a highly dynamic group that expands over time towards the ends of the environment, and
- The model in which the agents randomly choose whether to defend or to flee (Fig. 3 c), exhibited three different behaviours. In some situations the agents were all collapsed into a tight knot (as the model from the defender game) with the difference that this knot was now oscillating around the environment (i), in others they were stationary, randomly distributed and oscillating (ii), and in the last case the agents would form a flocking (iii).

The case of this game clearly demonstrated that visual animation aided in discovery of the system’s emergence and properties that could be verified at a later stage, which in turn proved that changes within the individual agent rules (like the change of the strategy of some agents) might cause a huge difference in the behaviour of the system as a whole.

### 4 The *sp*XM2Visual Conversion Tool

In this section we will discuss a way to arrive from a formal model to an executable visual animation. This work utilises NetLogo as the target visual simulation platform. As a programmable modeling environment, NetLogo is specialised into simulating natural and social phenomena, including modeling of complex systems [15], [16]. The platform supports hundreds of agents to operate independently, providing a clear picture of the micro-level behavior of the agents, as well as the macro-level patterns within the whole system.

NetLogo supports an agent’s actions called *commands*, and functions that compute and report results, *reporters*. This environment comes with many built-in commands and reporters called *primitives*, but the modellers are also allowed



**Fig. 3.** NetLogo output of the aggressor-defender game.

to define their own, called *procedures*. Furthermore, it supports custom defined agent and/or global variables, along with the built-in agent variables like the agent coordinates and heading. All these characteristics allow an almost direct mapping from a  $^{sp}XM$  to NetLogo code, as presented in Fig. 4.

The mapping presented in Fig. 4 inspired us to pursue an automatic mechanism that would translate a  $^{sp}XM$  model into code for the NetLogo platform. A variation of this idea initially presented in [17] concentrated on the semi-automatic translation of XMs to NetLogo code (the user had to manually write NetLogo code for modelling motion in the environment). But having the spatial characteristics of a  $^{sp}XM$  makes it possible for a fully automatic translation because now there is a mapping from the  $^{sp}XMDL$  model to the NetLogo functions that represent movement. The tool developed is called  $^{sp}XM2Visual$ , and its components are abstractly presented in Fig. 5.

As it can be noticed from Fig. 5, the  $^{sp}XM2Visual$  system architecture consists of 2 main components, the parser (notifies of possible errors, like types and logical ones) and the compiler (contains all the rules and the logic for the translation). Given that NetLogo supports only lists (this is a mathematical structure similar to the array found in a programming language), in order to produce an equivalent NetLogo model from a  $^{sp}XM$  representation, there was a need of creating an external library. This external library for NetLogo (included in the compiler of Fig. 5) supports all the mathematical primitives found in  $^{sp}XMDL$  (sets, bags, sequences, etc.) and their operations (see Table 1 for examples). Moreover, the set of operations from  $^{sp}XMs$  is translated within this library as functions (an agent's movement to a certain position, the perception

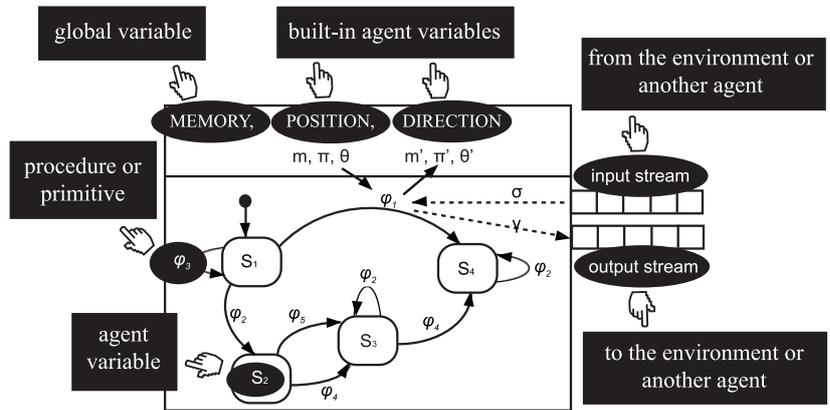


Fig. 4.  $s^pXM$  mapping to NetLogo.

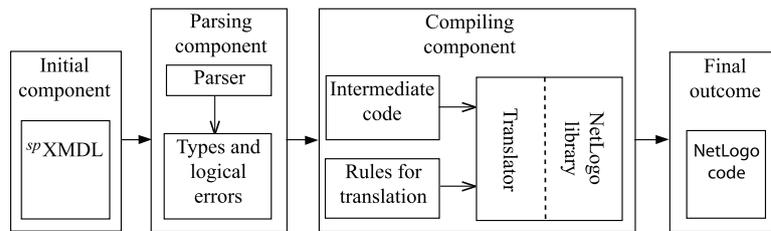


Fig. 5. System architecture of  $s^pXM2Visual$ .

of the environment, etc.). Finally, functions that deal with the modelling of the environment (defining obstacles, defining agents, etc.) are included as well.

**Table 1.** Examples of the NetLogo library

Math primitive	NetLogo structure	Operations	NetLogo functions
set	list	=	are_sets_equal
e.g. set1={a, b}	e.g. ["a","b"]	$\cup$	set_union
set2={a, d, e}	e.g. ["a","d","e"]	$\cap$	set_intersection

**Table 2.** Rules for transformation

IF	THEN
$\langle \text{FUNCTION HEAD} \rangle$ where $\langle \text{VAR} \rangle \leftarrow \langle \text{EXPR} \rangle$	$\langle \text{TRANSLATED FUNCTION HEAD} \rangle$ let $\langle \text{EXPR} \rangle$ $\langle \text{NEW VAR} \rangle$ where $\langle \text{NEW VAR} \rangle = ?\text{memory\_}(\text{the position of the element})\_(\text{the name given by the modeller})$ if $\langle \text{NEW VAR} \rangle \in \langle \text{MEMORY} \rangle$ or $\langle \text{NEW VAR} \rangle = ?\text{input\_}(\text{the position of the element})\_(\text{the name given by the modeller})$ if $\langle \text{NEW VAR} \rangle \in \langle \text{INPUT} \rangle$

Except from the library, other interesting parts of the compiling component are the *rules for transformation* and the *translator*. The rules for transformation are simple *if-then rules*. An example of such a rule for the *where statement* in an *spXMDL* representation is presented in Table 2.

On the other hand, the translator is composed of a reader (parses a *spXMDL* representation and constructs the necessary objects), object model (function, memory, state, transition, etc.) and a writer (used in writing the NetLogo code). The parser is written as BNF grammar.

Using *spXM2Visual*, the function *defend* of Sect. 2.1 is compiled to NetLogo code as follows (note that in this specific example, the spatial property *direction* is not necessary, therefore it is not used):

```
%function defend
to defend [model_name]

%declaration of the current memory tuple and input set,
%get_curr_memory and get_curr_input are methods
%from the NetLogo library
let curr_memory get_curr_memory model_name
```

```

let curr_input get_curr_input

%the following code retrieves all memory values of the current memory

let memory_0_strategy item 0 curr_memory
let memory_1_friend item 1 curr_memory
let memory_2_enemy item 2 curr_memory
let memory_3_my_xcor item 3 curr_memory
let memory_4_my_ycor item 4 curr_memory
let memory_5_curr_direction item 5 curr_memory

%the following code retrieves all input values of the input set

let input_0_friend_xcor item 0 curr_input
let input_1_friend_ycor item 1 curr_input
let input_2_enemy_xcor item 2 curr_input
let input_3_enemy_ycor item 3 curr_input

%calculates the new position of the agent

let new_xcor (input_0_friend_xcor +
  input_2_enemy_xcor) / 2
let new_ycor (input_1_friend_ycor +
  input_3_enemy_ycor) / 2

if true [ %this is an automatically generated condition

%saves the new values back to memory

  let memory []
  set memory lput memory_0_strategy memory
  set memory lput memory_1_friend memory
  set memory lput memory_2_enemy memory
  set memory lput new_xcor memory
  set memory lput new_ycor memory
  set memory lput memory_5_curr_direction memory
  set_curr_memory model_name memory

%moves the agent to the new postion

  facexy new_xcor new_ycor
]
end

```

## 5 Discussion and Conclusions

The classes of MAS that deal with movement in space are quite numerous, such as highly complex bio-MAS like collective robotics, swarms of unmanned air

vehicles (UAVs) or underwater vehicles (UUVs), insect and animal societies, or even human behaviour [2]. It might be argued that introducing the spatial  $^{sp}$ XM concept provides a better solution to the problem instead of representing the spatial agent's basic characteristics in cumbersome ways. Moreover, introducing the notion to formally represent a movement, brought  $^{sp}$ XM models closer to direct mapping into an animation/simulation platform. Grasping this opportunity resulted into the implementation of a tool that generates a translation from  $^{sp}$ XMDL to NetLogo code, automatically. Even further, Fig. 3 clearly demonstrates that some emergent properties within a system can be detected by an observer from the animation of its formal model. This finding gives more added value to  $^{sp}$ XMs, i.e. a major improvement towards the verification techniques it natively supports.

Talking about the  $^{sp}$ XMs native support to verification, it might be clarified that they inherit the model checking support from the standard XM. By removing the newly defined components that define a  $^{sp}$ XM results into a completely valid skeleton of a normal XM model to which one can further apply model checking techniques. This approach is encouraged, because any other attempt to verify the spatial  $^{sp}$ XM properties (such as position and direction) can only result into a state explosion (there will be a huge amount states for every possible position and direction).

It is imperative that the idea presented in this paper, that is, introducing a mechanism to model spatial characteristics, is not necessarily directed only to XMs. This can be applied to any other concept that belongs to the same group of modelling formalisms equally well. Similarly, utilising NetLogo as a MAS programmable modeling environment does not only serve the current work but it could be also applicable to any other programmable animation platform.

As a future work it will be interesting to see how to introduce a *spatial* perception to other classes of modelling formalisms which target bio-MAS. Once this is completed, there are intentions to investigate more case studies with these new variations and draw a comparison in respect to  $^{sp}$ XM. Moreover, visual animation will continue to undertake the focal point of the future research.

## References

1. J.Casti: Complexification. Harper Collins, New York (1994)
2. C.Anderson: Linking micro to macro-level behavior in the aggressor-defender-stalker game. Proceedings of the Second International Workshop on the Mathematics and Algorithms of Social Insects (2003) 9–16 Atlanta, GA.
3. M.Holcombe: X-machines as a basis for dynamic system specification. In: Software Engineering Journal. (1988) 69–76
4. P.Kefalas, G.Eleftherakis, E.Kehris: Communicating x-machines: A practical approach for formal and modular specification of large systems. Information and Software Technology **45** (2003) 269–280
5. P.Kefalas, E.Kapeti: A design language and tool for x-machines specification. In D.I.Fotiadis, S.D.Nikolopoulos, eds.: Advances in Informatics, Singapore, World Scientific Publishing Company (2000) 134–145

6. Clarke, E.M., Wing., J.M.: Formal methods: State of the art and future directions. *ACM Computing Surveys* (1992) 626–643
7. F.Ipate, M.Holcombe: Specification and testing using generalised machines: a presentation and a case study, *Software Testing, Verification and Reliability* (1998) 61–81
8. G.Eleftherakis, P.Kefalas, A.Sotiriadou: Xmctl: Extending temporal logic to facilitate formal verification of x-machines, *Analele Universitatii Bucharest, Matematica-Informatica* (2002) 79–95
9. I.Petreska, P.Kefalas, I.Stamatopoulou: Extending x-machines to support representation of spatial agents. Work in progress (2011)
10. E.Bonabeau: Agent-based modeling: methods and techniques for simulating human systems. *Proceedings of the National Academy of Sciences* (2002) 7280–7287 Washington, United-States.
11. I.Stamatopoulou, M.Gheorghe, P.Kefalas: Modelling dynamic configuration of biology-inspired multi-agent systems with Communicating X-machines and Population P Systems. Volume 3365:389-401 of LNCS. Springer-Verlag, Berlin (2005)
12. P.Kefalas, M.Holcombe, G.Eleftherakis, M.Gheorge: A formal method for the development of agent based systems. In V.Plekhanova, ed.: *Intelligent Agent Software Engineering*, Idea Group Publishing Co. (2003) 68–98
13. M.Holcombe, F.Ipate: *Correct Systems: Building a Business Process Solution*. Springer, London (1998)
14. P.Kefalas, G.Eleftherakis, A.Sotiriadou: Developing tools for formal methods. In: *Proceedings of the 9th Panhellenic Conference in Informatics*. (2002)
15. U.Wilensky: NetLogo Segregation model. Center for Connected Learning and Computer-Based Modeling, Northwestern Univ., Evanston, IL. (1997) <http://ccl.northwestern.edu/netlogo/models/Segregation>.
16. U.Wilensky: NetLogo. Center for Connected Learning and Computer-Based Modeling, Northwestern Univ., Evanston, IL. (1999) <http://ccl.northwestern.edu/netlogo/>.
17. I.Petreska, P.Kefalas: Towards novel approaches to modelling and verification of biologically inspired multi-agent systems. In Psychogios, A.G., Proedrou, F., Kalyva, E., Eleftherakis, G., eds.: *Proceedings of the 5th Annual SEERC Doctoral Student Conference (DSC 2010)*, Thessaloniki, Greece, South-East European Research Centre (September 13-14 2010) 445–452

# Towards a Pragmatic Approach of Agent Development<sup>\*</sup>

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**Abstract.** The agent programming community has been continuously developing over the past decades and a vast array of approaches for developing multi-agent systems have been proposed. Most of them follow two trends: they either offer high expressivity at the cost generality or the other way around. We think that by embedding the agent programming language into a general purpose functional language we can bridge this gap. Hence we can express the domain specific semantics in an abstract way while allowing us to focus on the pragmatic issues inherent in a multi-agent system. We are going to conduct our work in a modular fashion: firstly we build an embedded domain specific language – targeted at individual agent entities – on top of a statically typed functional language; secondly, we develop a coordination framework using stream semantics and investigate its integration with the agent language built in the first step and its use with respect to implementing agent organizations.

## 1 Introduction

The agent programming community has been continuously developing over the past decades and a vast array of approaches for developing multi-agent systems have been proposed. Given the AI heritage of the multi-agent systems (MAS) community a good deal of them propose custom programming languages, ranging from languages based on logic formalisms that cover all the aspects of a MAS to the ones targeting only specific aspects, e.g. coordination [9].

In our survey of relevant publications we identified the following trends in multi-agent systems: (i) a tendency toward *domain specific languages*; and (ii) Java seems to be the predilect implementation language of the MAS community. Having a domain specific language has the advantage of providing for the reification of the domain specific concepts, hence keeping close to the semantics at the cost of being able to express general usage patterns. This leads to a tension between expressivity and generality: anything beyond the usage patterns envisioned by the language creators has to be implemented in the host language.

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It is our purpose to investigate an approach that covers the middle ground between solutions that provide for expressivity and those that offer generality. During our research we will give special attention to agent organizations as a means of developing a complex MAS, focusing on coordination and communication.

## 2 Motivation and background

Programming languages and models are a key component of developing any software system, including multi-agent systems. The task of modeling a complex system can be simplified by the availability of first class domain specific concepts that allow the developer to clearly and succinctly express his intent. This need was the initial reason for creating the agent paradigm in the first place, but more recently there has been an interest in reifying more than just the agent concept: in [15] the notion of *spaces*, i.e. structures that contain application specific data and components, is made first class; [6] proposes the reification of *feedback loops*; and [14] features *artifacts* as first class entities alongside agents.

There are two approaches to enriching the set of concepts that the programmer can use while developing a MAS: (i) developing a custom language which features all the intended concepts as first class; and (ii) developing the intended semantics in the form of a framework. Well established examples of custom agent languages are **JASON** [18] and **2APL** [8] from the *Belief-Desire-Intention* (BDI) camp, **CLAIM** [11] which based on the ambient calculus, and **MetateM** [5] built on top of temporal logic. All these languages are implemented and extensible in Java. While all examples score high on expressivity they more or less lack when it comes to generality. The best argument for this is that the only way to extend them is using their implementation language.

On the framework side of the fence, JADE<sup>1</sup> – a MAS framework developed in Java – is one of the best known solutions. When using a generic programming language like Java to implement MAS it is hard to express concepts that are specific to the metaphor (e.g. agents, acts of speech) in a concise way. The best a developer can hope for is to factor out recurring patterns into libraries. Even though JADE offers “primitives” for MAS development (e.g. agents, interaction protocols) the conceptual and syntactic noise level is quite high. In order to implement an agent the developer has to *extend* a *base class* and *override* some *methods*. These concepts belong to the implementation language, not to the agent language. They are implementation details that the developer shouldn’t have to cope with, they are signs of *leaky abstractions*. The need for a higher level of abstraction arises.

We think that by embedding the domain specific language into an expressive host language we can have the best out of both worlds: we can implement the desired semantics in an abstract way, allowing us to focus on the problem domain, i.e. complex, distributed MAS. Even though logic programming seems to be the

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<sup>1</sup> <http://jade.tilab.com>

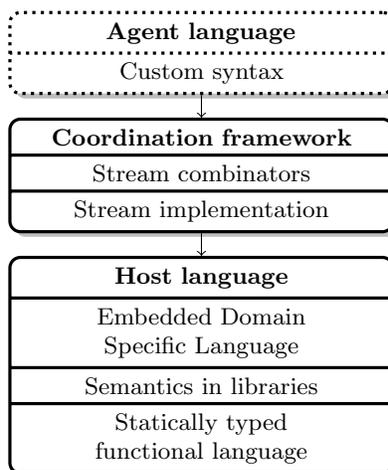
*lingua franca* of the agent community we have chosen to investigate functional programming as our vehicle for this task. Just like logic programming, functional programming is a declarative paradigm, and it is founded on the *lambda calculus*, giving it a rigorous mathematical background. It also has much to offer when it comes to expressivity and modularity.

Our attempt is motivated by real-world scenarios such as the one presented in [2]. The advent of cloud computing provides a fertile ground for research into the MAS field. More precisely we focus on resource allocation in distributed systems. A relevant effort to our approach is presented in [10], but we give the organizational aspect of multi-agent systems a central role in our research.

### 3 Our approach

We are going to explore the use of *Embedded Domain Specific Languages* (EDSL) in developing multi-agent systems, while using the functional paradigm as a vehicle in our endeavor.

Our approach is going to be layered: (i) we start from a statically typed functional language and build an EDSL that acts as an executable specification language for single agent entities; and (ii) develop a framework for workflow-oriented coordination on top of the previous layer and investigate its use as a means of implementing agent organizations. If the need arises, i.e. in order to avoid the syntactic noise that can be the result of using an embedded domain specific language, we will implement a custom language on top of the framework developed on the previous level. Figure 1 shows a graphical representation of our architecture.



**Fig. 1.** An overview of our approach

### 3.1 Embedded Domain Specific Languages for MAS

Since developing a complex MAS is a challenging undertaking on its own, we think that adding to the developer’s cognitive burden by making him learn new languages is undesirable. An example of such a situation can be found in [1] where the developer needs to tackle both Reo [9] for the coordination in the MAS and 2APL for implementing agent-level behavior. We are therefore going to embed our language into a general purpose functional programming language firstly because they are highly expressive, allowing for a very high level of abstraction<sup>2</sup>; and secondly, type inference makes the language succinct without sacrificing typing information. By embedding the language we attain a series of advantages: (i) we can leverage the host language in order to save development time and to boost expressivity, e.g. use the host language’s syntax and type system; and (ii) the libraries developed for the host language are directly accessible to the MAS program with little or no glue needed.

Another interesting avenue is the use of functional languages as executable specifications for single agent entities. We are encouraged by the fact that there have already been approaches in this direction, like the ones of [12] and [16], where  $i^*$  specifications are turned into executable models in 3APL and AgentSpeak respectively. Having executable specifications gives the developer an important advantage: the behavior of the program can be observed early on, before any major design decision have been made. This leads to a style of programming known as *exploratory programming* where the developer explores the design space from as early as the specification phase.

### 3.2 The coordination framework

In order to be useful a multi-agent system needs to facilitate coordination of individual agents. The problem is acknowledged in the MAS community [3] and solutions have been proposed, e.g. the Reo coordination language [9]. We find the Reo language interesting since it proposes a compositional approach. The author’s thesis is that “the behavior of multi-agent systems is nothing more than the sum of the behaviors of its individual agents plus its coordination mechanism” [9, p. 2]. In Reo simple *connectors*, i.e. channels with a clear semantics, are composed via a set of operators to obtain complex coordinators. In order to model their semantics they use *timed data streams*, which are streams made out of a value stream coupled with a time stream. The interpretation of such a stream is that the time values in the time stream correspond to the time at which the associated data values have occurred. This approach bears a close resemblance to *Functional Reactive Programming* (FRP) [19].

A recent approach toward developing distributed systems with the aid of FRP has been described in [7] by proposing a framework called *Opis* for developing distributed systems based on FRP and implemented as an EDSL in OCaml<sup>3</sup>.

<sup>2</sup> We are primarily focusing on statically, strongly typed functional languages, especially the ones that come from ML lineage (e.g. OCaml, SML, Haskell).

<sup>3</sup> <http://caml.inria.fr>

The behavior of nodes in the distributed systems is regulated by behaviors which are pure *reactive functions*. In order to attain complex behaviors Opis users can combine simple pure functions using *Arrow* combinators [13]. The authors argue that the choice of OCaml as their implementation language allows for highly parameterized and type-safe composable protocols. Opis is a particularly encouraging examples since it bears some similarities to our planned approach. This seems to point out that indeed functional languages are up to the task of specifying MAS.

## 4 Conclusion and further research

A common pattern that we have observed with all the languages in our overview is that they are only extensible via their implementation language, Java. While this allows the language to be highly expressive it also hinders generality since the development of any system that does not fit the designer's views has to make use of two languages: the language itself and the implementation language. This can lead to fragile and hard to maintain code base. By having the specification language and the implementation language hosted in a general purpose functional language we can have the best of the two worlds: have an extensible system without sacrificing expressivity.

We find the approach taken in [1] interesting and we will investigate implementing coordination in a MAS by means of workflows. But in keeping with our design goals we will try to implement it as a library in the host language and make it available to the developer via an API that he can use in the domain specific language. In developing the coordination library we will evaluate FRP and the stream-based approach presented in [17] as possible models for the implementation. By splitting our research effort into layers we provide the flexibility to update our approach at any time should it be the case.

On the practical side we intend to have resource management in a distributed setting as our main focus. We will pay attention to the way various organizational models in a MAS can help produce an acceptable solution to this problem.

## References

1. Arbab, F., Aștefănoaei, L., Boer, F.S., Dastani, M., Meyer, J.J., Tinnermeier, N.: Reo connectors as coordination artifacts in 2apl systems. In: Proceedings of the 11th Pacific Rim International Conference on Multi-Agents: Intelligent Agents and Multi-Agent Systems. pp. 42–53. PRIMA '08, Springer-Verlag, Berlin, Heidelberg (2008)
2. Begnum, K.M., Lartey, N.A., Xing, L.: Cloud-oriented virtual machine management with mln. In: CloudCom. pp. 266–277 (2009)
3. Boella, G., van der Torre, L.: Coordination and organization. *Electron. Notes Theor. Comput. Sci.* 150, 3–20 (May 2006)
4. Bordini, R., Braubach, L., Dastani, M., Seghrouchni, A.E.F., Gomez-Sanz, J., Leite, J., O'Hare, G., Pokahr, A., Ricci, A.: A survey of programming languages and platforms for multi-agent systems. In: *Informatica* 30. pp. 33–44 (2006)

5. Bordini, R.H., Dastani, M., Dix, J., Seghrouchni, A.E.F.: Multi-Agent Programming: Languages, Tools and Applications. Springer Publishing Company, Incorporated, 1st edn. (2009)
6. Brun, Y., Marzo Serugendo, G., Gacek, C., Giese, H., Kienle, H., Litoiu, M., Müller, H., Pezzè, M., Shaw, M.: Software engineering for self-adaptive systems. In: Cheng, B.H., Lemos, R., Giese, H., Inverardi, P., Magee, J. (eds.) Software Engineering for Self-Adaptive Systems, chap. Engineering Self-Adaptive Systems through Feedback Loops, pp. 48–70. Springer-Verlag, Berlin, Heidelberg (2009)
7. Dagand, P.E., Kostić, D., Kuncak, V.: Opis: reliable distributed systems in ocaml. In: Proceedings of the 4th international workshop on Types in language design and implementation. pp. 65–78. TLDI '09, ACM, New York, NY, USA (2009)
8. Dastani, M.: 2apl: a practical agent programming language. *Autonomous Agents and Multi-Agent Systems* 16(3), 214–248 (2008)
9. Dastani, M., Arbab, F., de Boer, F.: Coordination and composition in multi-agent systems. In: Proceedings of the fourth international joint conference on Autonomous agents and multiagent systems. pp. 439–446. AAMAS '05, ACM, New York, NY, USA (2005)
10. Edmondson, J., Schmidt, D.: Multi-agent distributed adaptive resource allocation & madara. *Int. J. Commun. Netw. Distrib. Syst.* 5, 229–245 (August 2010), <http://dx.doi.org/10.1504/IJCNSD.2010.034946>
11. Fallah-Seghrouchni, A.E., Suna, A.: A programming language for autonomous and mobile agents. In: IAT. pp. 474–477 (2003)
12. Guan, Y., Ghose, A.K.: Executable specifications for agent oriented conceptual modelling. In: Proceedings of the IEEE/WIC/ACM International Conference on Intelligent Agent Technology. pp. 475–478. IAT '05, IEEE Computer Society, Washington, DC, USA (2005)
13. Hughes, J.: Generalising monads to arrows. *Science of Computer Programming* 37, 67–111 (May 2000)
14. Omicini, A., Ricci, A., Viroli, M.: Artifacts in the a&a meta-model for multi-agent systems. *Autonomous Agents and Multi-Agent Systems* 17, 432–456 (December 2008), <http://portal.acm.org/citation.cfm?id=1416855.1416859>
15. Pokahr, A., Braubach, L.: The notions of application, spaces and agents - new concepts for constructing agent applications. In: Schumann, M., Kolbe, L., Breitner, M., Frerichs, A. (eds.) Multikonferenz Wirtschaftsinformatik (MKWI): Multi-agent Systems: Decentral approaches for designing, organizing, and operating information systems. pp. 159–160. Universitätsverlag Göttingen (2 2010)
16. Salim, F., Chang, C.F., Krishna, A., Ghose, A.: Towards executable specification: Combining i\* and agentspeak(l). In: SEKE. pp. 739–742 (2005)
17. Sottile, M.J., Hulette, G.C., Malony, A.D.: Workflow representation and runtime based on lazy functional streams. In: Proceedings of the 4th Workshop on Workflows in Support of Large-Scale Science. pp. 10:1–10:10. WORKS '09, ACM, New York, NY, USA (2009)
18. Vieira, R., Moreira, Á.F., Bordini, R.H., Hübner, J.F.: An agent-oriented programming language for computing in context. In: IFIP PPAI. pp. 61–70 (2006)
19. Wan, Z., Hudak, P.: Functional reactive programming from first principles. *SIG-PLAN Not.* 35, 242–252 (May 2000)

# Paraphrase Identification in Bio-medical Terminology

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**Abstract.** In order to obtain lexical and conceptual resources for the the automatic analysis of medical naratives we took an approach for partial reuse of existing well-recognised resources in English such as the Unified Medical Language System (UMLS<sup>®</sup>) source vocabularies. In this article we tackle the problems of automatic rule-based matching of paraphrases of vocabulary concept labels to English translations of Bulgarian terms. With information extraction techniques we make a collection of terms used in our corpus, we translate them and use the UMLS tools for exact matching in order to obtain suggestions for the UMLS concept labels corresponding to the source terms. We determine the correct corresponding terms/termsphrases using rules based on semantic and lexical similarity, and task-related restrictions.

**Keywords:** terminology, natural language processing, bio-medical natural language processing, information extraction

## 1 Introduction and Related Work

Hospital patient records (PRs) often contain important findings regarding the case history presented as narrative text, which makes it difficult to automatically identify and further use them for generalisation of patient cases, medical research etc. Recently there have been many efforts in developing algorithms and procedures for extracting and structuring such information thus supporting the development of clinical decision-support systems, improvement of health management and treatment through provision of personalised healthcare services. In this study we are concerned with structuring information from records of diabetic patients in Bulgarian language. E.g. for each narrative describing the status of an organ we would like to obtain a template where the *organ* and *status* are slots and their values get filled in automatically whenever the entities are recognised in the text. The construction of domain models in the form of lexical and conceptual resources is crucial for the high performance of such an information extraction (IE) system. To do that we took an approach for partial reuse of existing well-recognised resources in English such as the Unified Medical Language

System (UMLS<sup>®</sup>) source vocabularies. The reuse of resources in English was provoked by the fact that no medical terminological bank/thesaurus is available in Bulgarian. Some approaches for relation-extraction are presented in [5] while this article focuses on the difficulties of cross-lingual terminological matching, which is an unavoidable part of the process of reusing existing semantic resources in other languages.

Paraphrases matching is a well known problem often solved in both monolingual and cross-lingual ontology mapping and information retrieval, question answering, text simplification, building of terminological dictionaries etc. The lack of enough information in the processing phase and the numerous ways to say/express the same meaning with different words make the complexity of this task very high even for humans (e.g. Microsoft Research Paraphrase Corpus [2] contains human judgment for each pair of sentences and the interrater agreement of the judgments is averaging 83%). Current works on paraphrase matching vary from finding single term paraphrases/synonyms to identifying whole sentence paraphrases, such as newspaper headings. In our setting we are looking for terms in English available in UMLS which can be labels of terms used in our corpus of patient records from hospital stays.

For building a conceptual resource in Bulgarian we take a bottom-up approach. We start with preprocessing of the corpus and with a number of Natural Language Processing techniques we extract the terminology used there. In order to organise the resulting terms in an ontological structure we partially reuse UMLS resources, such as concepts, synsets and relations. This is not a straight-forward process for some major reasons: *(i)* the source terminology is in Bulgarian and the target in English; *(ii)* terms have many synonyms, which may not be available in the source vocabularies; *(iii)* there could be lexicographical differences in the writing style; *(iv)* phrases can have different morphological structure due to organisational reasons or annotators preferences etc. For this reason we need to apply additional procedures to identify paraphrases of the source terminology in UMLS.

Recent approaches in this area take: *(i)* lexical similarity measures [4]; *(ii)* concept identification in both source and target phrase and pairing them by simple lexical matching techniques in order to check whether the information nuggets cover the ones from the other phrase [6]; *(iii)* paraphrases are considered as documents, which similarity is calculated based on vector similarity measures, using TF-IDF variations for document representation [8]; *(iv)* creation of canonized form of the sentences so that texts with similar meaning are more likely to be transformed into the same surface texts than those with different meaning [9] etc. Some of the best declared results in accuracy in this field is presented by [3] who use supervised combination of lexical and semantic features and reaches accuracy of 76.6% and 79.6% recall. It gives a little trade-off in recall in comparison with the other approaches which perform similarly, e.g. [7] reaches 83% recall but is a bit lower in accuracy 75.6%. In summary these approaches attack the problem with lexical similarity measures, different machine learning techniques and semantic representation, we use the latter two of them.

For the identification of the correct term correspondences (paraphrases/ synonyms) we apply several rules, extracted by analysing the corpus. They observe lexical similarity, some UMLS specific expressions, restrictions (stop words), and conceptual similarity based on term co-occurrences in the context.

The rest of the article is structured as follows: section 2 presents the available resources, section 3 outlines the text modelling and specifies the rules, in section 4 are described the experiments and the results we obtained, section 5 briefs the conclusion and directions for further development.

## 2 Available resources

We apply a pipeline of existing open source NLP tools and new software components to process automatically various linguistic and conceptual resources.

Our vocabulary of interest is constructed by a bottom-up approach: we extracted it automatically from patient status descriptions in a corpus of 1000 hospital PRs of diabetic patients. We were concerned only with the terminology used for limbs condition (only 828 of the records contained limbs condition and only 368 of them were unique). The identification of organ descriptions in the status statements is described in detail in [1]. The extraction was done semi-automatically starting with an initial list of frequently used terms and augmenting it iteratively by an expert supported by an extraction procedure which encodes the terms approved by the expert and suggests new ones for approval. This set of terms contains single words as well as phrases. The final set of terms was translated to English (where possible more than one translation was given).

One more term collection was generated for the experiment. It contains *sets of co-occurring terms* for each of the entries in the above described vocabulary. From each limb description for each patient we extract a set of terms used in it. From the resulting set collection we create an index by juxtaposing to each term all (one or more) of these sets, where it occurs. The sets are later used in order to determine the similarity between the source and target strings (see section 3).

For example in Table 1 are shown all sets of terms co-occurring with *feet*. Each set is extracted from a different limb description thus all three of them represent the context in which the term appears. The syntactic structure of the organ descriptions is discussed in detail in [1].

Please note that the terms in both resources are not lemmatised, they are translated and submitted to UMLS in their lexical variant and UMLS does the lemmatisation itself if necessary. This is done in order to preserve the original term form and extract more potential candidates from UMLS. For each lexical variant in Bulgarian we keep separate records for each term UMLS suggested.

As a terminological framework to support our ontology building task we employed the UMLS Metathesaurus. The advantage of UMLS as a terminological bank is that it contains well documented, consistently structured information, moreover all resources have the same internal representation in RRF text format and are easy to process. In addition there are tools which support the browsing and extraction of term-related information. We used the Metathesaurus for two

purposes: (i) to filter more carefully the terms that we want to process and (ii) to select a concept label for them.

Term	Set of co-occurrences
feet	[onychomycosis, pulsations, swelling, feet, hands]
feet	[pulsations,swelling, limbs, feet, onychomycosis, hands]
feet	[peripheral pulsations, onychomycosis, feet, arteries]

**Table 1.** Sets of terms, co-occurring with the term *feet* .

For the extraction of UMLS suggestions we used *exact matching* technique available in UMLS Terminology Services (UTS) API [12]. It returns labels of concepts having the same name up to lemma, their synonyms and labels that contain the searched term up to lemma.

### 3 Text Modeling and Filtering Rules

#### 3.1 Internal Representation

The data from our corpus and the obtained term suggestions are converted to the internal representation shown on Table 2 and co-occurrences sets as shown on Table 1. *BG term* is the term as obtained from the text, *EN translation* is its translation in English, assigned manually, *CUI* is its concept identifier in UMLS (UMLS specific feature, which is unique for each concept within UMLS) and *UMLS suggestion* is the concept label suggested by UMLS for the given translated term.

<b>BG term</b>	<b>EN translation</b>	<b>CUI</b>	<b>UMLS suggestion</b>
$X_{bg}$	$X_{en}$	$X_{cui}$	$X_{umls}$
глезенни стави	ankle joint	C0003087	Ankle joint structure
глезенни стави	ankle joint	C1279146	Entire ankle joint
глезени	ankles	C0003086	Ankle

**Table 2.** Internal representation of the collected features from the corpus and UMLS.

After analysing the so-structured data we figured out few rules which combine different features, such as lexical similarity, task-oriented restrictions and context. The rules are described below and for each rule we have given positive or negative mark. The negative examples are later removed from the set (Table 2) and positive ones are kept.

### 3.2 Rules based on Lexical Similarity

The first set of rules is based on lexical similarity. These are Rule 1 and Rule 2.

*Rule 1.*  $X_{umls}$  equals  $X_{en}$  [(*someStringInBrackets*)] (POSITIVE)

*Rule 2.*  $X_{umls}$  is a lexical case of  $X_{en}$  (POSITIVE)

E.g. For the quadruple ordered according to the presentation on Table 2 [глезени; ankles; C0003086; Ankle] the concept *Ankle* with a concept identifier *C0003086* is marked as positive by Rule 2.

Rule 1 has an optional argument, string in brackets, which does not influence the application of the rule. After each rule application if a term gets marked as positive, the rest of the suggestions are being checked and if some of them has the same concept identifier it is also marked as positive.

### 3.3 Task-directed Rules

On a later stage we added task-lead preferences. Since we are collecting terms from descriptions of limbs of patients diagnosed with diabetes the probability that some terms are gene names is neglectably low. On the other hand genes have a whole variety of unpredictable names and can easily match the name of some of the terms in our terminological set during the UMLS term labels extraction. That is why we decided to ignore terms which contain the word *gene* in their name (Rule 3) and given this condition in all cases where UMLS suggests only one label and this label is not a gene name, the label is accepted as positive (Rule 4).

*Rule 3.*  $X_{umls}$  contains <gene>(NEGATIVE)

*Rule 4.*  $\exists!X_{umls}$  AND  $\neg$ Rule 2 (POSITIVE)

E.g. For the translated term scars there is only one UMLS suggestion as follows [цикатрикси, scars, C2004491, Cicatrix] then *Cicatrix* with concept identifier *C2004491* is marked as positive by Rule 4, while in the quadruple [цикатрикс, scar, C1419736, RPS4X gene] the term *RPS4X gene* is marked as negative.

In addition the UMLS source vocabularies often differentiate between *Entire organ* and *Structure of organ* and such duplicating suggestions could be often seen in our resulting set. We selected as positive suggestions only the terms of type *Entire organ* because they are semantically closer to the concepts of interest (Rule 5 and 6).

*Rule 5.*  $X_{umls}$  equals <Entire> $X_{en}$  (POSITIVE)

*Rule 6.*  $X_{umls}$  equals <Structure of> $X_{en}$  (NEGATIVE)

E.g. The translated term *right foot* has been given two UMLS suggestions as follows [дясното ходило, right foot, C1279998, Entire right foot][дясното ходило, right foot, C0230460, Structure of right foot] In this case only the first concept label *Entire right foot* was accepted as positive.

### 3.4 Context-employing Rules

In order to improve the performance we added some additional rule which takes in consideration the term context expressed by the sets of term co-occurrences. As described earlier we collected sets of terms co-occurring with the terms of interest. If rules 1-6 do not return positive result then this last rule is applied.

*Rule 7.* (i) IF  $X_{en}$  substringOf\*  $X_{umls}$ ,  
OR  $lemmatized(X_{en})$  substringOf\*  $lemmatized(X_{umls})$   
 $X1_{umls} = X_{umls} - ** X_{en}$  go to (ii);  
ELSE  $X1_{umls} = X_{umls}$  go to (ii);  
(ii) look for direct matches or up to lemma between the terms in the co-occurrence sets corresponding to  $X_{bg}$  and  $X1_{umls}$   
IF a matching terms are found mark as POSITIVE.  
ELSE mark as NEGATIVE.  
\*substring match up to whole words only  
\*\*subtraction of matching tokens

E.g. The UMLS suggestions for term *plantar surface* are as follows:  
[плантарна повърхност, plantar surface, C0818078, Plantar surface] and  
[плантарна повърхност, plantar surface, C0230463, Sole of Foot].  
The first term *Plantar surface* will be marked as positive by Rule 1 and *Sole of Foot* will be marked as positive too, by Rule 7, because the algorithm finds mathing terms in some of the co-occurrences sets corresponding to plantar surface [plantar surface: [dry skin, plantar surface, *feet*]].

## 4 Experiment and Results

For this experiment we used a set of 368 limb descriptions from PRs. The compiled terminology vocabulary had 265 terms including term lexical cases. All these terms were queried against UMLS with a setting *exact match* and in result only 186 responses were received, sometimes more then one of them corresponding to one query. Terms that were not given any corresponding suggestion by UMLS are neglected. For testing purposes we extracted some 66 UMLS responses and applied the rules on them. If a given term enters this set, all responses for this term also enter in the set. The filtering results are shown in Table 3.

Rule No	1	2	3	4	5	6	7
Recognition rate (%)	54	8,3	2	10,4	15	8,3	2

**Table 3.** Results from applying consequently the rules from 1 to 7 on a test set

The UMLS labels in the test set were manually assessed whether they are relevant or not to the translated term. It turned out that out of the 66 labels

only 46 were correct, the procedure extracted 43 labels, 2 of them were wrongly recognised and 5 got omitted. These figures are presented in Table 4.

These results show that the rules are term dependent to some extent but also that even a few linguistic information in addition to the language independent rules may boost up significantly the performance. And these adjustments are often easy to be guessed in a relatively closed domain.

<b>Relevant labels</b>	46
<b>Recognised in total</b>	43
<b>Correctly Recognised</b>	41
<b>Wrongly Recognised</b>	2
<b>Not Recognised</b>	5
<b>Overall Precision</b>	95%
<b>Overall Recall</b>	89%

**Table 4.** Overall precision and recall

The results are encouraging, they show that in a closed domain with relatively clear terminology, shallow rule-based approaches not involving machine learning techniques and edit distance similarity metrics, could have quite high performance. Obviously Rules 1, 4 and 5 outperform the others and that is because they are tightly connected to the UMLS representation. Although the Metathesaurus has been reformatted in time by different experts and regulations this result confirms that its structure is stable and it is an appropriate resource to reuse. Some of the rules apply for a few examples only e.g. Rule 1a, Rule 3 and Rule 7 but we believe that on a larger scale the performance will benefit significantly from them (especially Rule 7 because it includes specific context features).

## 5 Conclusion

We presented an approach for cross-lingual paraphrase matching of terms extracted from the *limb status* descriptions of patient records in Bulgarian. The domain is a relatively narrow one; the terminology is well defined and does not mix up with the colloquial language. This helps to comparatively easy build rules for filtering of positive and negative examples. Although the number of rules is rather small the performance results are rather high. This is encouraging because the successful reuse of existing resources will boost-up the development of bio-medical NLP for Bulgarian and it will not start from scratch. The working set of terms was relatively small and we could afford manual translation which increased essentially the accuracy of the procedure. In the future we plan

to investigate the influence of the automatic translation over these results. We intend to prepare a broader extraction from UMLS by not only exact but also approximate match in order to achieve larger coverage of the terminology and then apply some edit distance metrics to reinforce the recognition.

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## References

1. Boytcheva S., Nikolova, I., Paskaleva, E., Angelova, G., Tcharaktchiev, D., and Dimitrova, N.: Obtaining Status Descriptions via Automatic Analysis of Hospital Patient Records. In: V. Fomichov (Ed.), Special Issue on Semantic Informational Technologies of Informatica, an International Journal of Computing and Informatics (Slovenia, Ljubljana), Issue 4, December 2010
2. Dolan W. B., C. Quirk, and C. Brockett. 2004. Unsupervised Construction of Large Paraphrase Corpora: Exploiting Massively Parallel News Sources. COLING 2004, Geneva, Switzerland.
3. Kozareva, Z., and Montoyo, A. (2006). Paraphrase identification on the basis of supervised machine learning techniques, *Advances in Natural Language Processing: 5th International Conference on NLP (FinTAL 2006)*, Turku, Finland, 524-533.
4. Mihalcea, R., Corley, C. and Strapparava, C. (2006). Corpus-based and Knowledge-based Measures of Text Semantic Similarity. In *Proceedings of the American Association for Artificial Intelligence (AAAI 2006)*, Boston, July.
5. Nikolova, I., Angelova, G.: Identifying Relations between Medical Concepts by Parsing UMLS Definitions. In *Proceedings of the International Conference on Conceptual Structures (ICCS) 2011*, Derby, UK (2011). Under print.
6. Long Qiu, Min-Yen Kan, and Tat-Seng Chua. 2006. Paraphrase recognition via dissimilarity significance classification. In *Proceedings of the 2006 Conference on Empirical Methods in Natural Language Processing*, pages 1826, Sydney, Australia, July. Association for Computational Linguistics.
7. Wan, S., Dras, M., Dale, R., and Paris, C. (2006). Using dependency-based features to take the "para-farce" out of paraphrase, *Proceedings of the Australasian Language Technology Workshop (ALTW 2006)*, pp. 131-138.
8. Wubben, S., Bosch, A. van den, Kraemer, E. (2009) Marsi, Erwin Clustering and Matching Headlines for Automatic Paraphrase Acquisition. In *Proceedings of the 12th European Workshop on Natural Language Generation (ENLG 2009)*, Athens, Greece.
9. Zhang, Y. and Patrick, J. (2005). Paraphrase identification by text canonicalization. In *Proceedings of the Australasian Language Technology Workshop 2005*, pages 160166, Sydney, Australia, December.
10. Project "Effective search of conceptual information with applications in medical informatics", <http://www.lml.bas.bg/evtima>
11. Terminological Services of Unified Medical Language System (UMLS), <https://uts.nlm.nih.gov/home.html>
12. Terminological Services of Unified Medical Language System (UMLS), Developer's Guide. <https://uts.nlm.nih.gov/doc/devGuide/index.html>

# Protecting Web Applications using AspectJ

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**Abstract.** Web application security is a critical issue. Security concerns are often scattered through different parts of the system. Aspect oriented programming is a programming paradigm that provides explicit mechanisms to modularize these concerns. In this paper we present a technique for detecting and preventing common attacks in web applications like Cross Site Scripting (XSS) and SQL Injection using an aspect oriented approach by analyzing and validating user input strings. We use an aspect to capture input strings and compare them to predefined patterns. The intrusion detection aspect is implemented in AspectJ and is woven into the target system. The resulting system has the ability to detect malicious user input and prevent SQL Injection and Cross Site Scripting. We present an experimental evaluation by applying it to an insecure web application. The results of our tests show that our technique was able to detect all the attempted attacks without generating any false positives.

**Keywords:** security, web application, SQL Injection, XSS, AspectJ, input validation.

## 1 Introduction

User and critically important company information is managed using web applications. For this reason, web applications serve as a door for attacks. The vulnerabilities present in the application can be exploited by an attacker. Even with the rapid development of Internet technologies, web applications have not achieved the desired security levels. As a result, web servers and web applications are popular attack targets.

Two common attacks on this type of systems are Cross Site Scripting (XSS) and SQL Injection. SQL Injection is a technique where an intruder injects SQL code into the user input field in order to modify the original structure of the query to post hidden data, or execute arbitrary queries in the database. Cross Site Scripting occurs

when an intruder injects and executes scripts written in languages like JavaScript or VBScript.

Aspect Oriented Programming is a programming paradigm that provides explicit mechanisms to modularize crosscutting concerns (behavior that cuts across different divisions of the software) such as security. This makes it a good candidate for applying security to a system.

In this paper, we propose an Aspect Oriented protection system that detects and prevents attacks on web applications. This system analyzes and validates user input strings. We use an aspect to capture input strings and compare them to predefined patterns. The intrusion detection aspect is implemented in AspectJ and is woven into the target system. The resulting system has the ability to detect malicious user input and prevent SQL Injection and Cross Site Scripting. The advantage in using aspect oriented programming lies in separating the security code from application code. In this way it can be developed independently to adapt to new attacks.

The rest of the paper is organized as follows. Section 2 presents principles of SQL Injection, XSS and AOP. Section 3 presents related works in this area and our proposed solution. Section 4 describes in details the architecture of our system and its integration with the web application. Section 5 describes the experimentation and evaluation results. Section 6 concludes and discusses some future work.

## 2 SQL Injection, XSS and Aspect Oriented Programming

SQL Injection consists in inserting malicious SQL commands into a parameter that a web application sends to a database in order to execute a malicious query. As a result, database contents can be corrupted or destroyed. The most popular techniques used in SQL injection are tautology, union, and comments.

The general idea behind tautology is finding a disjunction in the WHERE clause of a SELECT or UPDATE statement and inserting malicious code into one or more conditional statements so that they always evaluate as true. Let's consider the case where the web application authenticates users by executing the following query:

```
SELECT * FROM users WHERE username = 'admin' and password = 'pass'
```

This query doesn't select any rows because the password is incorrect. Injecting `' OR 1=1` gives:

```
SELECT * FROM users WHERE username = 'admin' and password = '' OR 1=1'
```

This causes the WHERE clause to be true for every row and all table rows are returned.

The UNION clause allows the chaining of two separate SQL queries. An attacker can use this clause to manipulate an SQL statement into returning rows from another table. As an example, consider the following query that allows users to get the product name by inserting the product ID.

```
SELECT productName FROM products WHERE productID = '5'
```

An attacker can use the UNION clause to modify the structure of this query to:

```
SELECT productName FROM products WHERE productID = '5' UNION  
SELECT username, password FROM users
```

As a result, this query will display the product name together with the usernames and passwords of the users table.

Another type of SQL Injection uses comments to cut an SQL query and change its structure. The part of the SQL statement that comes after the comments will not be executed and the query will return the results that the attacker wanted. For example the following SQL statement:

```
SELECT * FROM users WHERE username = 'alice' and password =  
'alice123' can be transformed in the following way:
```

```
SELECT * FROM users WHERE username = 'admin' -- and password =  
'
```

The query will return all the information about the admin user.

Cross Site Scripting (XSS) is an attack done towards the user's browser in order to attack the local machine, steal user information or to spoof the user identity. The attacker uses a web application to send malicious code usually in the form of a script. Together with the legitimate content, the users get the malicious script from the web application. This attack is successful in web applications that do not validate user input.

Aspect Oriented Programming is a programming paradigm whose aim is to solve problems like code scattering and code tangling that cannot be solved by traditional programming methodologies. Code scattering means that the problem code is spread over multiple modules. This means that when developers want to fix a bug they have to modify several source files. Code tangling means that the problem code is mixed with other code. In the case of web applications, security code needs to be applied in different modules of the system. This process is error prone and difficult to deal with. AOP is a good candidate for applying security in web applications. The security code can be encapsulated into modules called aspects which can be maintained separately from the web application in order to adapt to new attacks.

### 3 Related Work and Proposed Solution

During recent years, different solutions have been proposed to address security issues in web applications. The most efficient way to protect against XSS and SQL Injection attacks is to inspect all the data the user inserts into the system, hence most of the work in this area treats user input.

Zhu and Zulkerine propose a model-based aspect-oriented framework for building intrusion-aware software systems [2]. They model attack scenarios and intrusion

detection aspects using an aspect-oriented Unified Modeling Language (UML) profile. Based on the UML model, the intrusion detection aspects are implemented and woven into the target system. The resulting target system has the ability to detect the intrusions automatically.

Mitropoulos and Spinellis propose a method for preventing SQL Injection attacks by placing a database driver proxy between the application and its underlying relational database management system [1]. To detect an attack, the driver uses stripped-down SQL queries and stack traces to create SQL statement signatures that are later used to distinguish between injected and legitimate queries. The driver depends neither on the application nor on the RDBMS.

Hermosillo et al. present “AProSec” implemented in AspectJ and in the JBoss AOP framework, a security aspect for detecting SQL Injection and XSS [3]. They use the same aspect for dealing with SQL Injection and XSS. Their experiments show the advantage of runtime platforms such as JBoss AOP for changing security policies at runtime.

We propose a system that performs a two-step validation of user input. In the first step it is validated syntactically to check whether it contains dangerous characters that can be used in XSS and SQL Injection. In the second step, the input is validated by the SQL validator in the context of a query to check whether it contains always true statements, comments or combinations of SQL keywords. In contrast to the systems described above, our system analyzes directly user input before it is being used as part of an SQL query. This facilitates the analyzing process. Another advantage of our system is the fact that the SQL validator checks the presence of SQL keywords in the user input. This prevents attacks that do not contain comments or always true statements but contain SQL keywords that can modify the original structure of the SQL query. Our system does not generate false positives because it considers as attack the presence of a combination of SQL keywords and not the presence of a single SQL keyword such as “Union” that might be part of a legitimate user name.

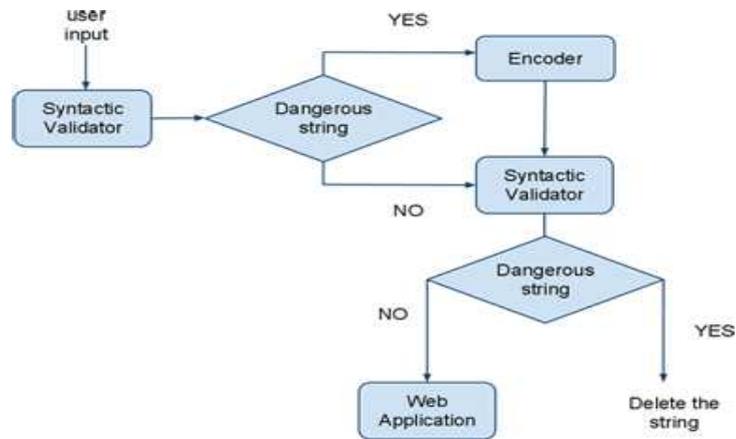
## 4 System Architecture

Our system consists of three parts. The first and the most important part is an aspect called `WebAppInputFilter` that contains the logic of the whole defense process. It defines the advices that control the validation process as well as the steps to be taken (code to be executed) based on the results of the validation. The aspect also contains the pointcuts that define the vulnerable points of the web application and allow the weaving with the advice code. The second part consists of a validators class that validate against XSS and SQL Injection attacks the input defined in the advices. The third part consists of an encoder which encodes dangerous characters by converting them to their decimal equivalent, leaving them harmless.

The basic idea behind our technique is to capture user input and validate it by comparing it to predefined patterns. In the case of SQL Injection, in contrast with current solutions [1, 2, 3], the user input is validated before being used as part of a query. The final query is a combination of user input and a partial SQL statement defined by the developer. We consider as safe the part of the query that is defined by

the developer, so there is no need to validate it and we only validate the user input part. This facilitates and speeds up the evaluation process.

The validation process happens in two steps. First the user input is validated to check whether it contains dangerous characters such as '<', '>', '=', and '-' that can be used to perform XSS and SQL Injection attacks. In the second step, the SQL Validator analyzes the input in the context of the query. This is done to check whether the query contains combined SQL keywords that can modify the original structure of the query or SQL code that can transform the original query in an SQL statement that results always true.



**Fig. 1.** The flow of information within the defense system

Figure 1 shows the flow of information within the defense system. The aspect captures the user input string and sends it to the first analyzer. If the string is not dangerous it is passed on to the second validation step. If the string is dangerous it is sent to the encoder. It encodes the dangerous characters and the result is passed to the SQL Validator. If the string is not considered dangerous, it is passed on to the web application as a legitimate request. If it is considered dangerous, it is erased.

#### 4.1 The WebAppInputFilter Aspect

This aspect is implemented in AspectJ [7]. This is the most widely used language for aspect oriented programming. It represents the extension of Java for dealing with aspects. The aspect defines pointcuts in the vulnerable points of the web application. It monitors the traffic in servlets and captures some specific calls that implement the *ServletRequest* and *HttpServletRequest* interfaces. The pointcuts are:

```

pointcut pcGetParameter(): call(String
javax.servlet.http.HttpServletRequest.getParameter (String))

pointcut pcGetParameterValues(): call(String []
javax.servlet.ServletRequest.getParameterValues (String))
  
```

## 4.2 The Validators

The validators class handles both XSS and SQL Validators. It uses regular expressions and pattern matching to validate user input against specific patterns.

The syntactic validator, analyzes separately each character of the user input string and acts as a filter that allows only characters ‘a-z’, ‘A-Z’, numbers ‘0-9’, spaces and characters like “.” and “;”. The rest of the characters are considered dangerous and will be sent to the encoder.

The SQL Validator consists of several validation strings in the form of regular expressions that are matched against user input according to different possibilities of injecting SQL code into the user input field of the web application. The validation criteria include: always true comparisons (both string and numeric), presence of quotes or comments, keywords for executing stored procedures, combinations of SQL keywords like UNION, SELECT, DROP, INSERT, ALL, etc. As regards this least evaluation criterion, it protects in cases where no comments or always true statements are present in the query but it still may contain dangerous keywords that can execute arbitrary operations in the database. We would also like to emphasize that the SQL Validator doesn’t simply detect the presence of SQL keywords, but the presence of combined SQL keywords that would potentially modify the original structure of the query. This means that input strings that simply contain SQL keywords (like UNION) will not be considered dangerous unless they contain some other SQL keyword that would create a risk for SQL Injection. This eliminates the false positive case of detection when a legitimate user has for example the word “Union” in their name.

## 5 Evaluation Results

We evaluated our system by using it against a vulnerable web application [8]. First we tried all sorts of SQL Injection and XSS injection attacks to see how the system behaved. Then we protected it using our system but were unable to bypass the application’s security.

For example, let’s assume that an attacker tries to input the following script into the system: `<script>alert(document.cookie)</script>`

The system will detect the dangerous characters “<”, “>”, “(“, “)” and “/” and encode them. In this way this input string will be considered as a simple string and not as a script and will not be interpreted by the browser. A wiser attack would be to encode the input string by using some encoding scheme (decimal, hexadecimal, octal, Unicode, etc) prior to inserting it into the web application. For example, the above string in hexadecimal format (\xNN) would be:

```
\x3c\x73\x63\x72\x69\x70\x74\x3e\x61\x6c\x65\x72\x74\x28\x64\x6f
\x63\x75\x6d\x65\x6e\x74\x2e\x63\x6f\x66\x6b\x69\x65\x29\x3c\x2f
\x73\x63\x72\x69\x70\x74\x3e
```

Even in this case the attack wouldn’t be successful because the system detects the usage of “\” and encodes the string to make it harmless. We tested our defense system by using other encodings (decimal, octal and Unicode) and none of the attacks were successful.

In the case of SQL Injection, let's assume that an attacker tries to inject a query that contains a statement that is always true into the system:

```
SELECT * FROM user_data WHERE last_name = 'Smith' OR '1'='1'
```

The SQL Validator will detect that there is a statement that is always true and will delete this string without passing it to the web application.

In order to evaluate the impact of the defense system in the performance of the web application we measured its response time using [9] under two scenarios. We measured the response time first in the absence of any defense and then in the presence of our defense system. We used a mix of input strings: harmless, XSS attack and SQL Injection attack strings. For every scenario we used 356 POST and 104 GET requests which make a total of 460 requests. We executed the series of requests 5 times and measured the average response time. Our defense system introduced an average overhead of 2.11%. We feel that this is an acceptable level of overhead for use in many production environments and it will not be noticeable by the user.

## 6 Conclusions and Future Work

We have presented our approach for building a security system for a web application. This system detects XSS and SQL Injection attacks in requests. Our system was built separately and the initial code of the web application was not modified. This allows the separation of security concerns and allows the security system to be evolved independently from the web application to adapt to new attacks.

As an advantage to similar solutions, besides checking for comments and always true statements, our SQL Validator also checks for the presence of a combination of SQL keywords in the input string. This can protect in cases where comments or always true statements are not present in the query but it still may contain dangerous keywords that can execute arbitrary operations in the database. Our system does not simply check for SQL keywords but for a combination of them. This is considered as an advantage in eliminating false positives like in the case of having for example the word "Union" as part of a legitimate user name. Furthermore, in contrast to usual solutions, when protecting against SQL Injection our system analyzes directly the user input before being used as part of a query. There is no need to analyze the whole query because the other parts of it are defined by the developer and are considered safe. This has the advantage of facilitating and speeding up the evaluation process.

The performance evaluation showed that our defense system provides an effective protection while maintaining within acceptable levels the overhead introduced in the system. Performance evaluation under very high load is left as a future work.

Our system can be improved in some directions. A possible improvement might be the implementation of defense against other form of attacks. Also new techniques like *machine learning* and *neural networks* can be used to detect more sophisticated attacks. Another direction of improvement might be the implementation of *runtime weaving* using the JBoss AOP Framework [10].

## References

1. Mitropoulos, D., Spinellis, D. SDriver: Location-specific signatures prevent SQL injection attacks, *Computers & Security*, Vol.28, Issues 3-4, May-June 2009, pp. 121-129 (2009)
2. Zhu, Z.J., Zulkernine, M.: A model-based aspect-oriented framework for building intrusion-aware software systems, *Information and Software Technology*, Vol.51, Issue 5, May 2009, pp. 865-875 (2009)
3. Hermosillo, G., Gomez, R., Seinturier, L., Duchien, L.: AProSec: An aspect for programming secure web applications, In *Proceedings of the The Second International Conference on Availability, Reliability and Security*, pp. 1026-1033 (2007)
4. Kirda, E., Jovanovic, N., Kruegel, C., Vigna, G.: Client-side cross-site scripting protection, *Computers & Security*, Vol.28, Issue 7, October 2009, pp 592-604 (2009)
5. Madou, M., Lee, E., West, J., Chess, B.: Watch What You Write: Preventing Cross-Site Scripting by Observing Program Output, *OWASP AppSec 2008 Conference (AppSecEU08)*, 2008.
6. Janot, E., Zavarisky, P.: Preventing SQL Injections in Online Applications: Study, Recommendations and Java Solution Prototype Based on the SQL DOM, *OWASP AppSec 2008 Conference (AppSecEU08)*, 2008.
7. AspectJ, <http://www.eclipse.org/aspectj/>
8. WebGoat, [http://www.owasp.org/index.php/Category:OWASP\\_WebGoat\\_Project](http://www.owasp.org/index.php/Category:OWASP_WebGoat_Project)
9. Apache Jmeter, <http://jakarta.apache.org/jmeter/>.
10. JBoss AOP, <http://www.jboss.org/jbossaop>

# Web Services Oriented Approach for Data Synchronization

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**Abstract.** This paper describes a research work in methods of synchronization feasibility of data that enables developers to build software applications which work well on both configurations "Online" and "Offline", in the absence of internet. We have designed an algorithm for data synchronization based on Web Services (WS), which allows software applications to work also "Offline" and to extract concrete results. After a detailed analysis and taking into consideration the various methods that could be used, we have proposed a design and implementation of a Web Service oriented approach for synchronization of data, based on advanced technology. Contributions of this research work are focused on the enhancements of the synchronization from the software developers that have enabled the realization of the needs of users to work with software applications in "Offline" mode, in order to increase confidence in using software applications.

**Keywords:** Web Services, Synchronization, Offline mode.

## 1 Introduction

The Department of Information Technology (DIT) in University of Pristina (UP) has the responsibility of setting standards and handle electronic services in all Administrative and Academic affairs within each Faculty. DIT leads and coordinates the process of continuous updating and elaboration of strategy at UP level, involving investments in information technology, according to the needs and requirements of central and local faculties, develops and sets standards and regulations about hardware, software, data communications and interaction of computerized systems, providing status reports, benchmarks, analysis, concepts, studies, guidelines, presentations, seminars, meetings and working conferences on information technology. There have been presented various projects to the

audience inside and outside the UP. DIT plans, designs, integrates, transfers, updates, manages and supports systems and information technology requirements, including UP eServices. The results obtained from this work are tested and successfully implemented in the Electronic Student Management System (ESMS) also developed from the DTI at the UP.

The aim of this paper is to provide new results for synchronization of data in different platforms through Web services [4], which allow software applications to run or to be executed online and offline as well. The use of software applications is more productive especially when these applications can work anytime and anywhere without inconveniences related to error messages referred to the user, such as: "No access to network" or "No access to Server". In this paper, "Offline mode" development for the UP ESMS System, in order to increase confidence in using software applications is presented. However, the challenges for building and managing reliable synchronization algorithms are a major concern and potentially dangerous. Algorithm design for data synchronization through Web Services, used to build software applications, which besides the online mode of operation are able to work also in offline mode, in the absence of Internet and power problems, and make these interruptions unnoticed by end users, is considered.

## **2 Synchronization**

Optimistic replication strategies are attractive in a growing range of settings where weak consistency guarantees can be accepted in return for higher availability and the ability to update data while disconnected. These uncoordinated updates must later be synchronized (or reconciled) by automatically combining non conflict updates, while detecting and reporting conflict updates [1]. The ability to support mobile and remote workers is becoming more and more important for organizations every day. It is critical that organizations ensure users have access to the same information they have when they are in the office. In most cases, these workers will have some sort of laptop, office desktop, Smartphone, or PDA. From these devices, users may be able to access their data directly through VPN connections, Web Servers, or some other connectivity method into the corporate networks [2]. Synchronization gained great importance in modern applications and allows mobility in the context of information technology. Users are not limited to one computer any more, but can take their data with them on a laptop [3].

### **2.1 What is synchronization?**

Data synchronization can be defined as a sharing of data among physically distinct databases. So when the application modifies data in one database, the modifications are then sent to the other databases. In our case, we have a central database located in one place, and 17 other databases located in different place (Faculties). We need to take care how to handle data movement from one side to another and how to avoid potential data conflicts.

## **2.2 The current state of functioning of systems in Offline mode**

Offline systems so far have worked based on several techniques [8]. Among the most advanced techniques are MS Synchronize Framework or shortly MS Sync Framework, which is a platform from Microsoft for synchronizing data from many units [2] and offline Web applications with HTML5 [11]. Sync Framework can be used to access data offline. Synchronization can be used for one-on-one or one-to-many units, which function offline. The synchronization service is incorporated in VS2008 and VS2010.

This option provides synchronization of data synchronization, file synchronization and synchronization of news publications. This synchronization is summarized in the following services: Sync Services for ADO.NET, Sync Services for File Systems and Sync Services for FeedSync. Thus, SyncServices for ADO.NET enables synchronization of data for Ado. NET. SyncServices Service for File Systems, enables synchronization of files between two or more units with the central unit and the SyncServices for FeedSync, enables synchronization of information in the form of RSS and Atom. Web applications are preferred over desktop applications because they are available 24x7 and are accessible from anywhere in the network [7]. A couple of years back, the term network implied wired-network but more recently, due to availability of high-speed wireless networks and handy mobile devices, the dependency over wired-network has diminished greatly. Via wireless connectivity, Web applications are now accessible literally from anywhere.

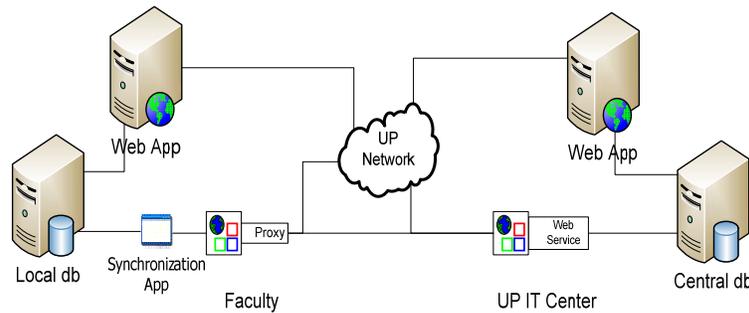
## **2.3 Benefits of Data Synchronization**

Synchronization is perfect for disconnected or occasionally-connected environments. It enables access to corporate data all the time (always-available) so there is no need for constant connection to the corporate network. It is very useful for unreliable or unavailable networks. With the use of synchronization the connection costs can be reduced, if we are able to mobilize data specific to the mobile user, elimination of paper-based solutions, reduce errors attributed to data entry, provide consistency throughout the entire solution, etc.

## **3 Electronic Student Management System (ESMS) - Case study**

ESMS is an UP system that is developed and implemented in all faculties of UP. System is Web based, with Web application and the database in the centre, and with the Web interface for the users in all faculties. The UP has built a network that connects all faculties. In UP we still have some problems with infrastructure reconstruction. The main problem remains with the electrical power interruption, since there are still difficulties to provide with a non-stop electrical power supply all the institutions and citizens in Kosovo. The influence of power supply is a major issue to the software systems. The electrical power interruption often happens during the work of the institutions so if the officials from the specific institution is using the system, the power interruption stops the process.

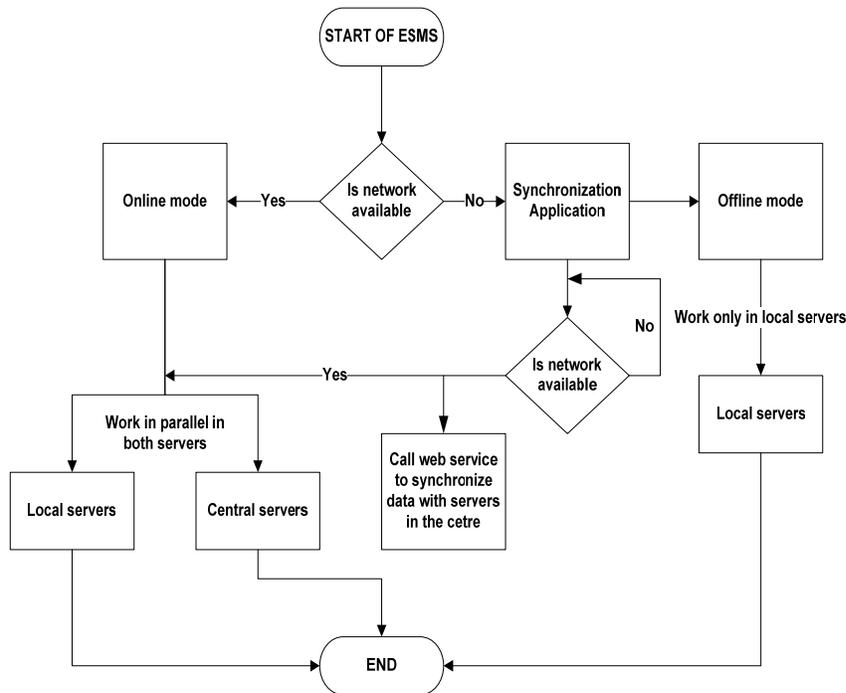
This problem is of direct consequence to the officials, since they need to provide services to the students who are expecting the availability of the information all the time. This leads to a diminished confidence of the students towards the faculty. Also the officials within the institutions decrease the confidence in UP systems. Also, since the officials in some cases are not very much familiar with the usage of different computerized systems, they tend to hesitate working with new systems. The electrical power interruption has its own contribution that helps in the hesitance to adapt with new technologies.



**Fig. 1.** Server configuration in UP IT Centre and in one Faculty

Taking into consideration these aspects and in order to succeed with our project, we had to find a solution that is independent from these problems. The solution was to introduce offline mode of operation. First thing to do in this case was to supply all faculties of UP with database and Web servers. Then, after the hardware infrastructure was completed, we had to install a copy of the application and the copy of the database in these servers. In this way, each of the faculties had the application at their disposal and could work with some of the features of the system [6]. The problem lays still on the features of the system regarding the interconnection of other faculties and with the UP: How to synchronize the data from one side to another?

We had to develop a special software component that does the synchronization of the data from one side to another. The Figure 1 shows the configuration of the servers and applications in the UP IT Centre and in one faculty. The Figure 2 shows the data flow depending on the presence of the network and Algorithm design for synchronizing data through WSs to extract concrete results in this paper will establish the feasibility of a synchronization of data that enables developers to build software applications which besides the way "Online" work well in the way "Offline" in the absence of the internet network. If there is a network, the application works in parallel online and offline, which means that the data are sent to both local and central database server. We propose this architecture in Figure 2:



**Fig. 2.** The data flow depending on the presence of network

If there is no network, the application works in offline mode and the data are saved only on the local database server. In this case the synchronization component starts and checks if the network is present. When the network becomes available, this component calls WS that sends data that has to be synchronized to the central server. The WS knows which data has to be synchronized from the column in the table of type “bit” named toSynchronize. If the application works in parallel, online and offline, the records that are inserted have the field toSynchronize set to false. So this means that there is no need for synchronization of data. When the application works only in offline mode, the records that are inserted have the value of this field set to true, and so the web service knows which records in the table have to be synchronized.

#### **4 Data synchronization based on Web Services**

SOAP protocol have a number of hidden assumptions that make space for further challenges. First, everything is being built on HTTP, while SOAP has built in support for the standard of other transports (such as SMTP). There's not a lot of work being

done yet on the alternatives. This has the advantage that HTTP working on port 80 is generally open on firewalls and proxy servers so WS messages can get through. But these open ports are frequently one way [4]. So while my application can call your web service, there's often no way for your server to call back to my application. The purpose of this protocol is to enable dynamic changing of SOAP message routing [5]. Data synchronization is scattered in different environments, by using WSs for communication-oriented approach to data, taking into account the dimension of conservation and their privacy.

#### **4.1 Implementation of the proposed solution for ESMS in Offline mode**

Implementation of Web applications in fact represents the online system, which will be set in a real Web server and connected to the Internet. Some organizational units may not have access all the time to the Web applications due to their disconnection from the network. Those units that are not included in the online Web application will be enabled during the offline mode. The offline system could be a reduced version of the entire system or an online system with rights and obligations to users. However, the data stored in the system during offline operation, in case of reactivation of the network connection will enable the synchronization of the data with the online system, which will regert the role as primary system.

To provide both modes of operation, ESMS has built a system which enables the data synchronization between faculties that are working offline with the primary system, in the main data base, so that the data could still be synchronous and up to date with the work done in all the different units. For this purpose, it has been provided the data synchronization, for the units working in "Offline" mode, with the primary system. This synchronization is also based on techniques that make use of WSs, considered as a relatively new technology, and the network infrastructure that will support the implementation of such technology serving the UP and its data synchronization in both "Offline" and "Online" mode and vice versa. The real database will be the same one used from the "Online" mode of ESMS. In this case a WS will have one or more methods which will be provided only from the configuration of the web server at the UP. This is because the synchronization of the units that will be working "Offline" within the UP network will not have access to other networks outside the UP.

In order to make possible the connection between the different units throughout a WS a Proxy Client will be created, such that when a certain faculty will access the Univeristy network the synchronization of date will be possible. The role of the proxy client would be to call the WS methods in order to transfer all the data that has been stored Offline and to receive updated data from the real database in the case when the unit has had no opportunity to communicate with central database when the interruption of the network had occurred. Besides the data transfer from the databases that work offline, units will also transfer files to the central server, from those units that have been working offline, when the network connection will back on. Files will be transferred as data and not as files, but the central server will return the file format. The data synchronization of the local and central server will be done in real time. Within a specified deadline a unit will be able to determine the Proxy activation from the Windows OS and the synchronization dynamics will depend from the needs that

vary from hours, days, etc. In general, data and file synchronization is possible, but the best techniques possible in order to get the best solution have been provided from a very close cooperation with the service provider at the UP.

#### 4.2 Synchronization of data from client (in this case the client is the faculty)

Below are presented the steps that we have used for data synchronization of the client, together with the comments explaining the code based on our proposed algorithms:

- Start of client synchronization;
- Filling DataSet with faculty data for synchronization;
- Sendig of data to WS, that returns two DataSets:
  - DataSet for confirmation that data are synchronized;
  - DataSet with data that has to be synchronized from the server Center in the faculty;
- Confirmation that the data into respective tables within the faculty database are synchronized with the server in the center;
- Synchronization of data that are sent from the Server in the centre;
- Registration or modification of sent data Filling of DataSet for confirmation of synchronized data;
- Sending data for confirmation in server in the center;
- End of client synchronization.

If the network is interrupted, we switch on the offline mode solution, the data are saved only on the local database server. In this case the synchronization components start and check if the network is present. When the network becomes present, this component calls WS that sends data that has to be synchronized with the central server.

#### 4.3 Synchronization of the data from server in UP IT Center

Below, we have presented the pseudo-code for synchronization of the data from the server in the center.

```
[WebMethod]
public DataSet[] Synchronization(string <ID>, DataSet
<dsDataFromFaculty>) {
Synchronization Faculty >> UP_IT_Center
for (int t=0;t< numberOfTablesForSynchronization;t++)
Synchronization UP_IT_Center>> Faculty
for (int t=0; t<numberOfTablesForSynchronization; t++)
<dsDataForFaculty[0]> = < Records to be synchronized >;
<dsDataForFaculty[1]> = < Data for confirmation >;
< dsDataForFaculty >; }
[WebMethod]
public void Confirmation(string <ID>,
DataSet<dsDataFromFaculty>) {
for (int t = 0; t < numberOfConfirmedTables; t++)
}
```

## 5 Conclusion

In this paper we have studied and presented the importance of using synchronization of data in an UP project called ESMS. In our study, we have investigated the WSs oriented approach for data synchronization of shared data systems, enabling software applications to work in offline mode and thus increasing the confidence in work. We used synchronization to avoid problems that the UP of Pristine have with the interruption of electricity and the network failures. By the use of synchronization, the officials in the institutions have no more problems with the network failures, and so the system functions without any interruption. Also the confidence of the Administrative and Academic staff in the UP increases since there is no more waiting for the documents because the network fails. The synchronization created has shown positive results in the reliability of the users of the software applications. The synchronization that we have build for the solution of the problem on UP has found application in many electronic systems which are being developed within the e-Government in Kosovo [9]. Nowadays and in the future, system developers have to take into consideration the use of synchronization methods in order to efficiently implement their systems.

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## 6 References

1. Foster, J.N., Greenwald, M.B., Kirkegaard, C., Pierce, B.C., Schmitt, A.: Exploiting Schemas in Data Synchronization (2007)
2. Introduction to Sync Framework Database Synchronization: <http://msdn.microsoft.com/en-us/sync/bb887608> (2011)
3. Draheim, D., Natschlager, C.: A Context-Oriented Synchronization Approach. Software Competence Center Hagenberg, Softwarepark 214232 Hagenberg, Austria (2008)
4. <http://www.ecademy.com/node.php>
5. Eyhab Al-Masri and Qusay H. Mahmoud, "Investigating Web Services on the World Wide Web", Department of Computing and Information Science University of Guelph, Guelph, ON, N1G 2W1 Canada (2008)
6. Cesare Pautasso, Olaf Zimmermann & Frank Leymann, "RESTful Web Services vs. "Big" Web Services: Making the Right Architectural Decision", 6900 Lugano Switzerland & Universitätsstraße 38 70569 Stuttgart, Germany (2008)
7. Lieven Desmet, Bart Jacobs, Frank Piessens, and Wouter Joosen, "Threat modelling for web services based web applications", DistriNet Research Group, Katholieke Universiteit Leuven, Celestijnenlaan 200A, 3001 Leuven, Belgium (2005)
8. [http://www.infosysblogs.com/engineering-software/2011/02/offline\\_web\\_applications\\_with.html](http://www.infosysblogs.com/engineering-software/2011/02/offline_web_applications_with.html)
9. E-government strategy 2009-2015, <http://kk.rks-gov.net>

# Common Textual Representation of Software Items<sup>\*</sup>

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**Abstract.** The diversity of software engineering tools, the ever faster growing number of programming and modelling languages, and the huge number of data formats add complexity and pose serious challenges to the software developers nowadays. On the other hand, data representation and data interchangeability take on a new significance as service-oriented architecture, cloud computing, inter-website communication and mashups become pervasive. In this paper an approach to deal with these problems is presented. The required characteristics of such approaches are described in relevance to recent software engineering tendencies. The approach named Common Textual Representation is introduced, and its most important elements are outlined. The required infrastructure and its application to define software items and problem domain objects are sketched. Finally, an example is given demonstrating how this method can be applied in the construction of software systems.

**Keywords:** CTR, Textual Representation, Textual Modelling, Data Model

## 1 Introduction

Construction of software systems consists essentially of development and modification of software items based on the analysis of other artifacts. In contemporary software projects a large number of modelling techniques are employed due to the specific properties of the resulting artifacts. Some dissimilarity among these activities is unavoidable — software requirements are captured in a completely different way from the way object oriented design is defined, and also very differently from the way computationally intensive data processing routines are implemented. This diversity poses serious challenges to the software engineering industry — such a large set of techniques takes considerable effort to be mastered, and all the required activities cannot easily fit to a software development process.

While for some kinds of systems suitable development methodologies and a set of reliable tools have been established, the problem has recently been

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compounded by a major shift in attitude. The unparalleled necessity for software has led to the abandonment of some widely accepted “heavyweight” development technologies and methodologies [6]. Most of them have been unable to answer the sudden demand for scalability, new forms of interactivity and inter-connectivity, and doubt has been casted on the suitability of even the most fundamental tools, such as the relational databases [19,17,14]. As many new lightweight instruments and methods have appeared recently in response, this presented diversity and immaturity of tools on an unprecedented scale.

One aspect where the effect of this variety is significant is the representation of software artifacts. Not only has the different nature of some artifact demanded specific means for manipulation, but even artifacts that have been considered similar are now defined in separate languages. With the rise in the number of utilities, the perceived value of the particular tools and technologies has decreased; this has led to their complexity, incompatibility or too specific skill requirements not being acceptable any more.

In this paper we provide an approach to address these challenges. The main idea is to shift the focus to the representation of the information in a simple and portable format and then build its manipulation routines around it, rather than to model it by other means (e.g. object oriented hierarchies) and develop such representation only to achieve interoperability. To accomplish this, first the representation of the data is designed to support most of the development needs, and then the rest of the software system is built as close as possible to the designed representation.

The rest of the paper is organised as follows. Section 2 outlines the necessary qualities of the potential solutions. In Section 3 the Common Textual Representation (CTR) approach is presented and the required infrastructure together with the process of defining software elements with it are sketched. Section 4 gives an example of an application of CTR comparing it to another approach. Finally, Section 5 concludes the paper with a summary of the main points and an outline of ongoing research activities and future objectives.

## 2 Approach Characteristics

Before we proceed, the necessary qualities of such a representation-focused approach should be outlined. To do this, a look at the recent changes in the software industry is needed in order to evaluate the shift in necessities and detect the tendencies which led to the rejection of some well-established instruments and the emergence of new ones. If an approach is to be successful, then it needs to be in harmony with these ongoing processes, and also to address demands which are not satisfied yet.

*Data Model Compatibility.* Traditionally, the starting point of software projects has most often been the capture of the problem domain entities in terms of object oriented [3] hierarchies or entity-relationship [2] models. As the problem domain model is unlikely to lose its importance, then if an approach is to gain

acceptance, it needs to support most usages of this model, including the object model used for in-memory operations, usually implemented in an object oriented language, the interchange of data between services, most often achieved via XML or technology-specific communication protocols, and long term persistence, traditionally achieved with relational databases or file-based structures.

*Wide Applicability.* Problem domain, however, is not the only element of interest. In fact, more time is usually spent in the definition of the software features. In the rapidly changing environment, having to integrate different approach for each kind of software item seems unattractive. A particular example is seen in the inefficiency of the imperative programming languages to describe visual layout. First attacked with visual programming [13], and later by external tools [1,12,18], such as UI definition languages, it was not until recently when frameworks such as JavaFX and Flex [8] appeared with declarative modelling features integrated into the core language. Therefore, a successful representation-focused approach should support a wide variety of software items such as configuration, user interface, and even interactive behaviour.

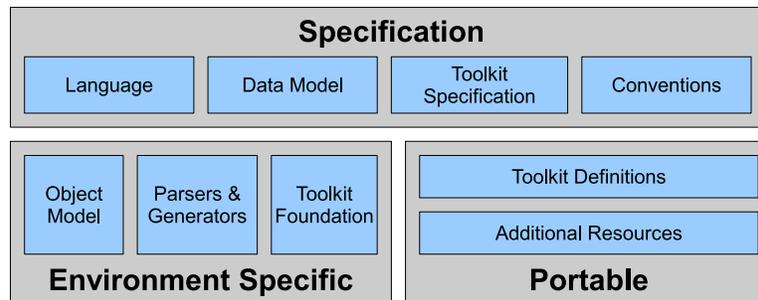
*Simplicity.* Another aspect of a potential solution is its complexity. As new tools come quickly and often live shortly, people are less likely to invest much effort in learning a new one. Similarly, if a technology requires complex parsers or converters to be implemented, then it is less likely to be integrated in many platforms. Thus, it becomes evident that it should be simple and easy to learn, similar or related to existing technologies, and easy to port it to new platforms. As a consequence, a successful representation-focused approach is likely to have the form of a small (meta)language together with a small set of tools and conventions. Its nature is likely to be textual rather than binary or graphical due to the tool size requirements of the later and other considerations [7].

*Declarativeness.* In the last few years the released tools have breathed new life into the declarative programming paradigm. New instruments combine structured definitions with reactive programming [10] in order to describe interactive behaviour, while existing languages have been enhanced to support structured (meta)information better [15]. Conventions and development frameworks now prescribe languages such as JavaScript to be used in functional style [4,9], and construction of domain-specific languages is advocated for easier modelling of the problem domain [11,5]. Following these tendencies, it may be safe to assume that any new approach is more likely to be embraced by the community if it fosters defining information in a declarative way.

### 3 Common Textual Representation

In order to present the Common Textual Representation approach, let the *CTR Infrastructure* contains the following (Figure 1):

1. Specification elements consisting of a suitable textual *Language* with an appropriate *Data Model*, *Conventions* prescribing how objects can be represented in the language, and a *Toolkit Specification* of standard instruments.
2. Elements specific to the environment of interest (e.g. Java SE, Python, etc.) including an *Object Model* with appropriate routines to construct, access and manipulate the *Data Model*, *Parsers* and *Generators* for the *Language*, and *Toolkit Foundation* implementing the parts of the *Toolkit Specification* that can not be defined in a portable manner.
3. Resource definitions in the *Language* usable in various environments including the *Toolkit Definitions*, which together with a *Toolkit Foundation* forms an implementation of the *Toolkit Specification*.



**Fig. 1.** The elements of the *CTR Infrastructure*

Then, a software is being built in accordance with the *Common Textual Representation Approach* when the following criteria are met:

- The objects from the problem domain are analysed in terms of appropriate representations in the *CTR Language*.
- Functionality using problem domain objects is implemented via utilities that wrap and manipulate the *CTR Object Model*, instead of using object model constructed from scratch in the employed programming languages.
- Business and presentation logic that can be represented efficiently in the *CTR Data Model* are defined in the *CTR Language* and functionality to support them is constructed, as long as defining them in the programming languages of interest is not significantly cheaper.
- Tools capable of directly persisting and manipulating the *CTR Data Model* are employed to store and manipulate the problem domain objects, instead of applying custom persistence schemata.
- When data is to be interchanged between nodes of the same or different systems, the simplest possible protocols capable of transferring problem domain objects represented in the in the *CTR Language* are utilised, instead of building specific protocols and APIs.

As building *CTR Definitions* in the *CTR Language* is the heart of our approach, it is necessary to describe the process in detail. Since simplicity is essential for the *CTR Language*, the definitions of some elements may turn out to be quite lengthy. In order to overcome this drawback, the following approach is prescribed (Figure 2):

1. *Verbose* representation in the *CTR Language* is designed for all kinds of elements to be defined, and instruments to process them are developed. This form should support efficient and convenient manipulation of the *CTR Data Model*, even if writing the definition itself may be time-consuming.
2. *Brief* representation in the *CTR Language*, which may include micro-languages and other shorthands, is designed for frequent kinds of elements for which using only the *verbose* one is too tedious. Instruments to convert between *brief* and *verbose* definitions are developed.
3. *DSL (Domain-specific Language)* representation, which, depending on the nature of the elements, may vary from a simple pre-processor to a completely different syntax, is designed for elements whose definition would otherwise require considerable effort. Utilities to convert between the *DSL* and *brief* or *verbose* definitions are developed.

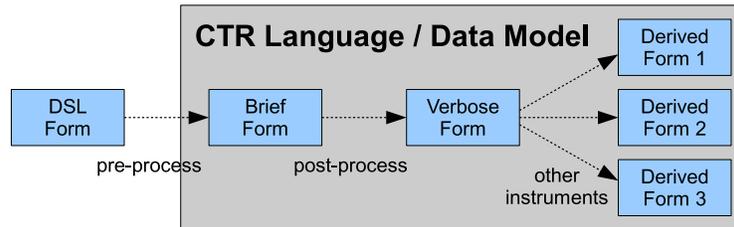


Fig. 2. Possible definition forms in CTR

## 4 Example

To illustrate the idea better, it is necessary to explore an example. Let us assume that we want to create a Java system which deals with some problem domain objects and have selected a *CTR Infrastructure* including the following:

1. JSON as a *CTR Language*, a *Data Model* and *Conventions* for it, and a simple functional programming language with JSON-based syntax as part of the *Toolkit Specification*.
2. Java libraries providing appropriate *Object Model*, *Parsers*, *Generators*, and *Toolkit Foundation*, including an interpreter for the functional language.
3. Standard library for the functional language as *Toolkit Definitions*.

This way, we can define problem domain objects in JSON like this:

```
"people": {
  "john": {
    "tag": "person",
    "name": "John Smith",
    "date": {"year": 1952, "month": 12, "day": 4}
  },
  ...
}
```

And, accessing them from Java can have form similar to the following:

```
Element john = api.load(file).field("people").field("john");
String name = john.field("name").asString();
```

To this point, what we have presented is not in any way different from directly manipulating the DOM of the definition — an approach unlikely to suit the development of complex systems, mainly due to the lack of type safety. One would probably want two things: means to check the validity and integrity of the data, and easier and safer way to access the data within Java code. While these can be achieved by using some schema technology, defining an object model for the data, and using an Object/Json Mapper, the CTR approach advises a slightly different solution.

First, define a specifications and type-checking routines in the functional language, allowing us to define simple types in the following form:

```
"person": {
  "tag": "simple-type",
  "invariants": [
    {"query": [".tag"], "value": "person"}
  ],
  "observers": {
    "full_name": {"query": [".name"], "type": "string"},
    "birth_date": {"query": [".date"], "type": "simple_date"}
  }
}
```

Which can be used from Java to check objects for conformance:

```
Element personType = ... // the defintion of the type "person"
Element instanceOf = ... // the type checking function
Element result = interpreter.invoke(instanceOf, personType, john);
assert result.equals(Element.TRUE);
```

This satisfies the first requirement, but the Java code using these definitions leaves a lot to be desired. Instead of manually dealing with these type definitions, a better approach would be to define an Internal DSL whose host language is Java for specifying simple types in the following way:

```

@Invariants({@Inv(query=".tag", string="person")})
interface Person extends SimpleType {
    @Query(".name")
    String fullName();

    @Query(".date")
    SimpleDate birthDate();
}

```

Which, provided an appropriate Java API for it is implemented, allows us to generate the aforementioned type definition as well as to use objects in safer and more natural way:

```

Person person = typeTool.convert(john, Person.class);
String name = person.fullName();

```

At first sight it may seem unclear how this differs from defining a schema, building an object model, and using an Object/Json Mapper. In fact, libraries such as Jackson [16] can generate JSON Schema definitions from annotated problem domain classes, allowing one to achieve essentially the same.

However, in contrast to the CTR, with the Object/Json Mapper approach most of the semantics would be defined in Java. This will not extend well if we want to expand the system to programming languages not directly compatible with Java, as similar Object/Json Mapper libraries should be present and object models should be built and maintained for each of the languages of interest. With CTR, the ratio between the JSON definitions and the Java code, including the supporting libraries can be significantly higher, thus allowing easier integration of a new language. In fact, the CTR approach is not limited to type checking, and we could easily define other problem domain operations in the same manner.

## 5 Conclusion and Future Work

This paper outlined the ideas behind the Common Textual Representation approach, including the causes which lead to its development, the necessary characteristics of any representation-focused approach that is to solve these problems, the elements that the CTR Infrastructure has, and some its potential advantages. We have shown that it is aligned with the ongoing software engineering tendencies and may provide means to resolve some of the current most pressing problems.

What remains to be done is the construction of a reference *CTR Infrastructure* and experimentation with its elements. Since the choices of language and data model are very important, we have already assessed some specific options and have begun to test the suitability of data models for different kinds of software items and problem domain objects, but the status of these ongoing research activities is beyond the scope of this paper.

For the long term, we plan to start to collect feedback and to put effort into the development of conventions as well to explore the capacity of the approach for software architecture definitions.

## References

1. Abrams, M., Phanouriou, C., Batongbacal, A.L., Williams, S.M., Shuster, J.E.: UIML: an appliance-independent XML user interface language. *Computer Networks* 31(11-16), 1695–1708 (1999), ISSN 1389-1286
2. Chen, P.P.: The entity-relationship model—toward a unified view of data. *ACM Transactions on database systems* 1(1), 9–36 (Mar 1976), ISSN 0362-5915
3. Coad, P., Yourdon, E.: *Object Oriented Analysis*. Prentice Hall PTR, 2nd edn. (Oct 1990), ISBN 0136299814
4. Crockford, D.: *JavaScript: the good parts*, chap. 4. O’Reilly Media, Inc. (2008), ISBN 0596517742
5. Fowler, M.: *Domain-specific languages*, chap. 2. Addison-Wesley Professional (2010), ISBN 0321712943
6. Fowler, M., Highsmith, J.: The agile manifesto. *Software Development* 9(8), 28–35 (Aug 2001), ISSN 1070-8588
7. Grönniger, H., Krahn, H., Rumpe, B., Schindler, M., Völkel, S.: Text-based modeling. In: *ATEM 2007: 4th International Workshop on Language Engineering* (2007)
8. Hammond, J.S., Goulde, M.: Rich internet apps move beyond the browser. Forrester Research, Inc. (Jun 2007)
9. Khoo, Y.P., Hicks, M., Foster, J.S., Sazawal, V.: Directing JavaScript with arrows. In: *Proceedings of the 5th symposium on Dynamic languages*. pp. 49–58 (2009)
10. Maier, I., Rompf, T., Odersky, M.: Deprecating the observer pattern. Tech. Rep. EPFL-REPORT-148043, École Polytechnique Fédérale de Lausanne (2010)
11. Mernik, M., Heering, J., Sloane, A.M.: When and how to develop domain-specific languages. *ACM Computing Surveys (CSUR)* 37(4) (2005), ISSN 0360-0300
12. Mozilla: Xul language spec. <http://www.mozilla.org/xpfe/languageSpec.html> (Aug 1999), second draft
13. Myers, B.A.: Visual programming, programming by example, and program visualization: a taxonomy. In: *ACM SIGCHI Bulletin*. vol. 17 (1986), ISSN 0736-6906
14. Orend, K.: *Analysis and Classification of NoSQL Databases and Evaluation of their Ability to Replace an Object-relational Persistence Layer*. Master’s thesis, Technische Universität München, Fakultät für Informatik (Apr 2010)
15. Rouvoy, R., Merle, P.: Leveraging component-oriented programming with attribute-oriented programming. In: *Proceedings of The 11th ECOOP International Workshop on Component-Oriented Programming* (2006)
16. Saloranta, T., Brown, P., Eastey, M., Heaton, R.: Jackson JSON Processor. <http://jackson.codehaus.org/>, date retrieved: June 15, 2011
17. Seeger, M.: Key-value stores: a practical overview. <http://blog.marc-seeger.de/pages/papers> (Sep 2009)
18. Stöttner, H.: A platform-independent user interface description language. Tech. Rep. 16, Johannes Kepler Universität Linz, Institut für Praktische Informatik (May 2001)
19. Varley, I.: *No Relation: The Mixed Blessings of Non-Relational Databases*. Master’s thesis, The University of Texas at Austin (Aug 2009)

# HPP Simulator for Real-Time Simulation and SCADA Software Testing

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**Abstract.** Real-time simulations using methods like hardware-in-the-loop (HIL) drastically decrease the costs of testing the control systems replacing the physical models with virtual ones. Real-time simulations are also used as final products as it is the case in flight simulators used to train pilots. Correspondingly, the Hydro Power Plant (HPP) simulator is created to train the HPP operators. Thereby, mistakes caused by human factor getting in touch with the real system for the first time are significantly reduced. The HPP simulator consists of two parts, the Supervisory Control And Data Acquisition (SCADA) program running on Windows PC and the HIL platform used to execute the model of HPP in real-time. To create the SCADA program NI Lookout software is used. The HPP model is created in Matlab/Simulink and adjusted for real-time. The SCADA program communicates with the HIL platform in the same way as it does when a PLC is connected to a real system. The only difference is that the HIL platform does not get the data from the sensors, actuators or other PLCs, but the PLC produces all the necessary variables (inputs and outputs) from the simulation model executed on him in real-time. In this way the SCADA program makes no difference between the real plant and the model. As we want to provide a simulation the nearest possible to reality it is necessary to have a complex HPP model which will imitate the behavior of the actual plant. This means that we need to involve nonlinearities, dynamics and other complicated events like water hammer in the model. From the other side, it is very well known that real-time simulations have limitations from the side of solvers as well as from the side of the hardware platform possibilities. Therefore it is necessary to adapt the desktop model of the HPP for real-time simulation.

**Keywords:** real-time, hardware-in-the-loop, control, SCADA, simulation, Hydro power plant, modeling, stiff solver.

## 1 Introduction

Real-time simulations can be used in two different ways:

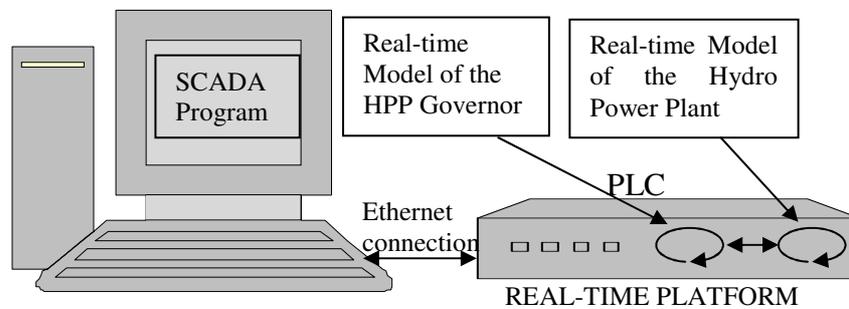
1. As a power tool in the development process. In Model-Based Design the plant model is used to develop and test the control and signal processing algorithms in desktop simulation (off-line). Once the designs are complete and the algorithm exists in production code, it is necessary to test the code as well as the production controller if it is capable of running in real-time. This can be done in two ways:

- With connection of the controller with the hardware prototype which is more expensive and time consuming or,
- With connection of the controller with the plant model running on a real-time platform (Hardware-in-the-loop) which reduces the costs in later phases of development. This gives the ability to test the controller in condition that would damage equipment and personal.

2. As a final product. Products that have human in the loop require real-time simulations. For example the flight simulators that are used to train the pilots require real-time simulation of the plane, control systems and environment. Sometimes simulators like this are used in the industry to simulate plants, machines or some complex processes in order to train the staff how to operate with the concrete system.

As example, Institute for Automation in Leoben, Austria developed training system using HIL to perform a real-time simulation of the roll exchange in a track rolling mill [6]. In this manner staff could train, without requiring access to the real plant. This leads to a better performance of the staff during real exchange of rolls and with this to higher availability of the plant and rise in production. In similar way, the Hydro Power Plant (HPP) simulator is created to train the HPP operators. Thereby, mistakes caused by human factor getting in touch with the real system for the first time can be significantly reduced and HPP operators can train how to behave in extreme situations without making damage to the plant or bringing in threat human population.

The structure of the HPP simulator is shown on Figure 1.



**Fig. 1.** Structure of the HPP simulator

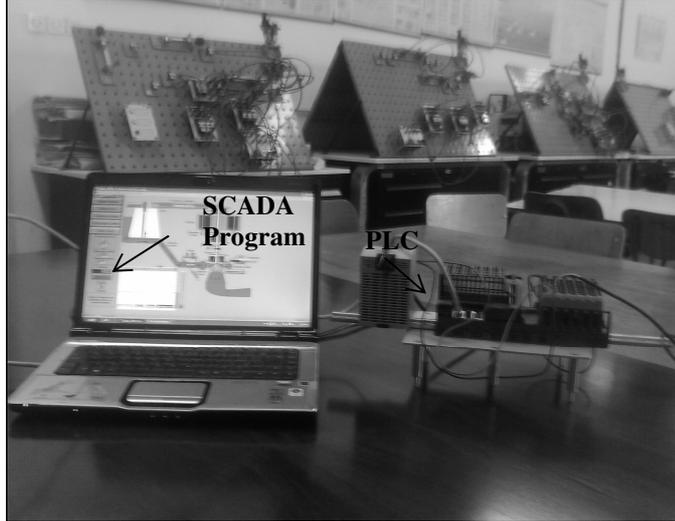


Fig. 2. HPP Simulator

## 2 Real-Time Platform

Real-time simulation of physical systems requires finding a compromise between those three things:

- Model complexity
- Solver (explicit or implicit) and his settings, and
- Hardware performance of the real-time platform that permits execution in real-time.

Usually, simulation models that give accurate results in desktop simulations are too complex to be used in real time simulations. This is because the simulation execution time per step must be shorter or equal than cycling time step of the hardware platform (PLC). Value of the simulation execution time per step depends on model complexity, type of the solver, number of iterations (some solvers have possibility to change the number of iterations like ODE14x) and speed of the real time platform.

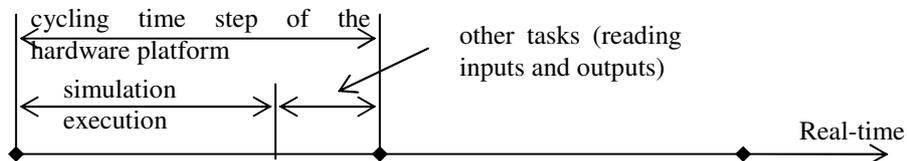


Fig. 3. Cycling time steps vs simulation execution

Cycling time step depends from the hardware platform possibilities. Some hardware platforms do not allow smaller time step than 10 ms which usually is too big time step for the solver to give stable and accurate results especially in area of hydraulic systems. Real-time platform used in this particular case is based on B&R X20 PLC and has possibility to run on 0.4 ms.

## 2.1 Mathematical Model of HPP

The heart of the real-time platform is the code of the mathematical model of the HPP. The model represents HPP in isolated operation and includes the dynamics of the following subsystems: hydraulic subsystem (penstock and turbine), governor subsystem and electrical subsystem. Details about HPP modeling can be found in [1], [2], [3] and [4]. Mathematical model imitate the dynamics of the plant authentically, taking in account complicated events like water hammer. The model is than tested using desktop simulations Figure 4. This is done using variable step solvers in Matlab/ Simulink.

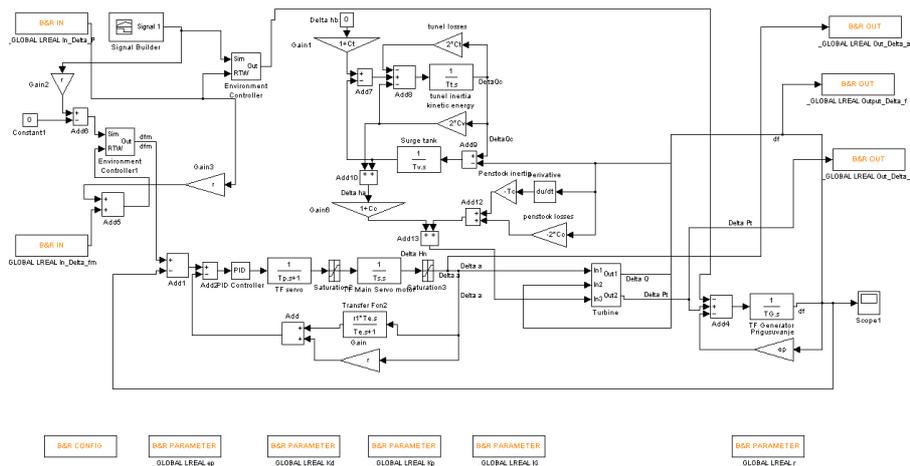
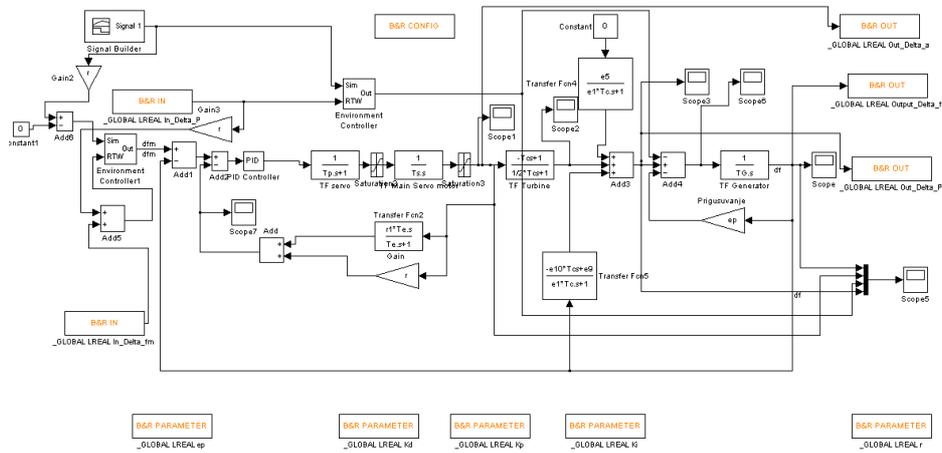


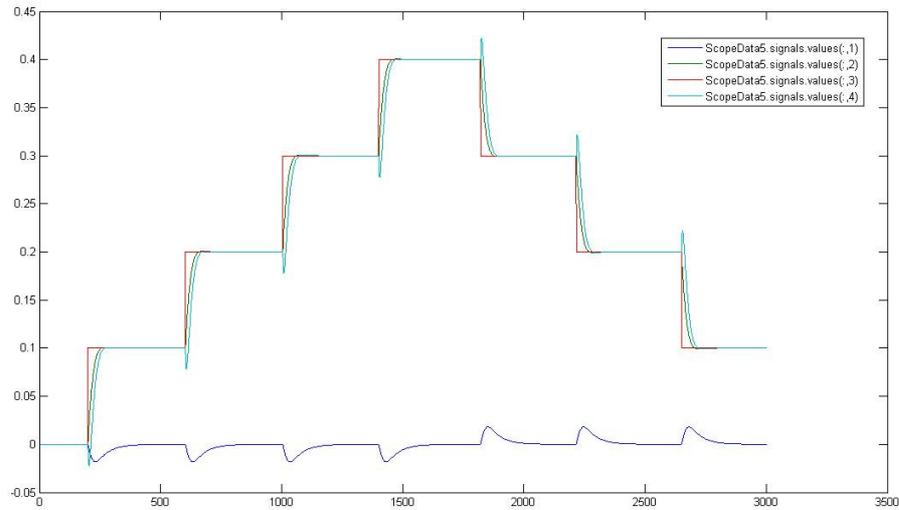
Fig. 4. Nonlinear model of HPP

The complexity of the model used in this phase did not allow real-time simulations simply because the step size of the solver needed for the model to be numerically stable is too small to be executed on the real-time platform. Therefore, this model is changed/reduced and much of the elements of the model which were represented with nonlinear forms were changed with linear (figure 5). This has been done in such way that the speed of execution of the model is improved but behavior of the elements is not changed. In this phase of the model reduction it is important to know what the point of interest of the concrete simulation is. If the point of interest is design and testing of PID controller for the turbine governor than it is recommended [5] that nonlinearities of the all directly involved elements (proportional valve, hydraulic cylinder) are kept but nonlinearities for all other elements of the model can be

neglected. In this way we manage to have good match between simulation responses of the desktop model and real-time model.

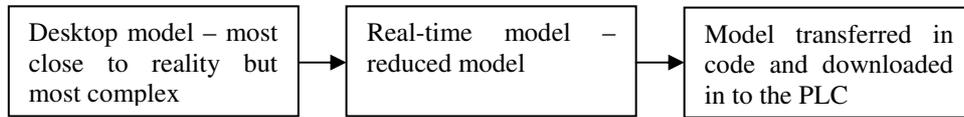


**Fig.5.** Changed/reduced model of HPP and prepared for real-time simulations



**Fig. 6.** Responses from the model of HPP

Using Matlab's Real-time Workshop and B&R Automation Studio target for Simulink the reduced model is transferred in optimized C code for B&R hardware. This model is then downloaded in to the B&R X20 PLC and is running with 1 ms cycling time. The hardware used for the real-time platform is B&R X20 PLC with possibility to run C code in real-time.



**Fig. 7.** Model transformation

## 2.2 Numerical Integration

Matlab is one of the software packages that has good base of implemented solvers for numerical integration. All the codes (solvers) are integrated through a simple interface and it is very easy to make a change between them during the experimentation. The codes are separated in two main types: variable- or fixed-step solvers. For desktop simulations there is big variety of solvers to be used but for systems that are stiff, like it is the case with hydraulic systems, it is recommended to use ODE23s, ODE23t or ODE23tb. For real-time simulations only fixed-step solvers (real-time platform operate at fixed-size signal sample rates) can be used. If additionally the problem is stiff, non-linear and with a lot of discontinuities than there is no big selection, actually only one implicit fixed-step continuous solver is available: ODE14x - implicit, extrapolating fixed-step solver based on linearly implicit Euler method.

## 3 Supervisory Control and Data Acquisition Program

The Supervisory Control And Data Acquisition (SCADA) program for HPP is created using NI Lookout software. The SCADA program is made in form of enclosed logical parts of the process displayed on individual control panels used for supervisory control. There are 10 control panels presenting main processes in HPP. Control structure of the SCADA application is in the pyramidal form. On the top there is so called Main Panel which presents basic information to the operator. From this panel the operator can go further to the panels which present particular power units and so on. Unit Panel of the SCADA program gives overview of the characteristic constitutional parts of hydroelectric power plant connected with one unit (vertical Francis turbine): penstock gate, downstream penstock, turbine butterfly valve, bypass valve, turbine, generator, wicket gate, governor, diffuser, bearings of turbine and generator, braking system, lubrications systems and cooling system. The program imply main automated processes in the HPP and simulates basic control actions. For this purpose it incorporates real algorithms for start up, shut down, and stationary work. It also simulates dynamic behavior of the plant, the delivered power, flow and opening of the wicket gate depending of the required/reference power.

The SCADA program communicates with the HIL platform in the same way as it does when a PLC is connected to a real system. The only difference is that the HIL platform does not get the data from the sensors, actuators or other PLCs, but the PLC produces all the necessary variables (inputs and outputs) from the simulation model

executed on him in real-time. In this way the SCADA program makes no difference between the real plant and the model.

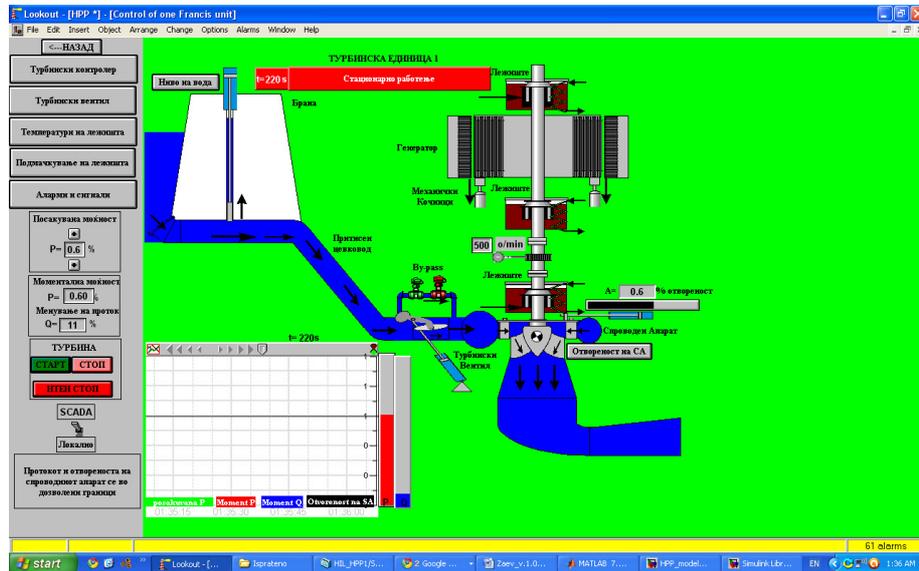


Fig. 8. Unit Panel of the SCADA program

## 4 Summary

The HPP simulator is created for testing SCADA programs. The HPP simulator consists of two parts, the SCADA program running on Windows PC and the HIL platform used to execute the model of HPP in real-time. The SCADA program is created using NI Lookout software. The HPP model is created in Matlab/Simulink and adjusted for real-time. The SCADA program communicates with the HIL platform in the same way as it does when a PLC is connected to a real system. The only difference is that the HIL platform does not get the data from the sensors, actuators or other PLCs, but the PLC produces all the necessary variables (inputs and outputs) from the simulation model executed on him in real-time. In this way the SCADA program makes no difference between the real plant and the model.

The procedure for creation of the simulator is presented in Figure 9.

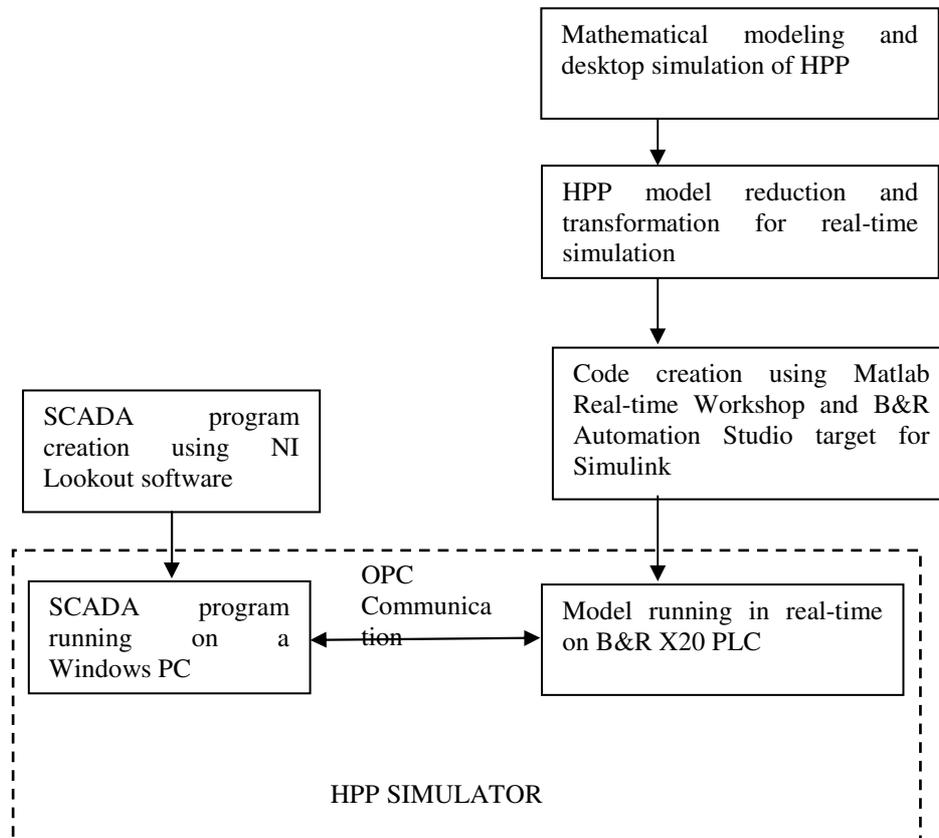


Fig. 9. Procedure for creation of the HPP simulator

## 5 Conclusions

Real-time simulations using methods like hardware-in-the-loop (HIL) drastically decrease the costs of testing the control systems replacing the physical models with virtual ones. Real-time simulations are also used as final products as it is the example of Institute for Automation in Leoben, Austria who developed training system using HIL to perform a real-time simulation of the roll exchange in a track rolling mill [6]. Likewise, the Hydro Power Plant (HPP) simulator is created to train the HPP operators. Thereby, the following is contributed:

- Mistakes caused by human factor getting in touch with the real system for the first time can be significantly reduced,
- The operator can be trained for extreme situations outside of the not putting in danger the plant and the humans,

- The training is outside of the facility so the production can continue without stopping,
- The real-time platform can be used in other purposes like testing the governor performance in HIL environment.

## References

1. Kundur, P.: Power system stability and control. McGraw-Hill, Inc. (1994)
2. De Jaeger, E., Janssens, N., Malfliet, B., Van De Meulebroeke, F.: Hydro Turbine Model For System Dynamic Studies. IEEE Transactions on Power Systems, Vol. 9, No. 4 (1994)
3. Calovic, M.: Regulacija elektroenergetskih sistema. Elektrotehnicki fakultet –Beograd, Beograd (1997)
4. Quiroga, O.D.: Modelling and nonlinear control of voltage frequency of hydroelectric power plants. Ph.D. Thesis, Polytechnical University of Catalonia (2000)
5. Rath, G., Kargl, H., Zaev, E.: Getting Simulation Models Faster Using Model Components of Different Abstraction Levels. ASIM11, Krefeld (2011)
6. Rath, G., Zorn, J., Könighofer, E.: Training Simulator for Rolling Mill Maintenance, Advances in Simulation for Production and Logistics Applications Markus Rabe (ed.), Stuttgart, Fraunhofer IRB Verlag (2008)
7. Boyer, S.A.: SCADA: Supervisory control and data acquisition. The instrumentation, Systems and Automation Society ISA (1999)
8. Strah, B., Kuljacha, O.: Nova turbinska regulacija na HE Miljacka. Brodarski institut Zagreb
9. Merritt, H. E.: Hydraulic control systems. John Wiley & Sons, Inc. (1967)
10. Akers, A., Gassman, M., Smith, R.: Hydraulic power systems. Taylor & Francis Group, LLC (2006)
11. Jelali, M., Kroll, A.: Hydraulic Servo-systems: Modeling, Identification and Control. Springer (2003)
12. Zaev, E., Tuneski, A., Nospal, A.: SCADA Simulation program for monitoring and control of hydropower plants. ZEMAK, Ohrid (2006)
13. Isermann, R., Schanitz, J., Sinsel, S.: Hardware-in-the-loop simulation for the design and testing of engine-control systems. Pergamon, Control Engineering Practice 7 (1999)
14. Hanselmann, H.: DSP in Control: The Total Development Environment. IEEE IECON Proceedings (1996)

# Embedded Shaping Technique to Reduce Oscillations in Intelligent Drives

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**Abstract.** In this contribution we focus on “intelligent” mechatronic drives (MDs) like used in modular robotics. A MD consists of a gear-box connected to a servo motor, together with electronics and control in one module. We want to show that an input-shaping technique like the half-cycle posicast method can be added to a normal feedback-control structure in a MD. The technique implemented to the internal digital control does not need additional resources due to a relatively low calculation effort. Once adjusted, the control works autarkic like an embedded system. Having done this allows the control eliminating or at least reducing i.e. mechanical oscillation. Oscillations can occur due to at least one or more resonances in the mechatronic system. We would like to introduce the theory as well as simulation results along a real application. An experimental setup was build up for verification.

**Keywords:** embedded, input-shaping, half-cycle, posicast

## 1 Introduction

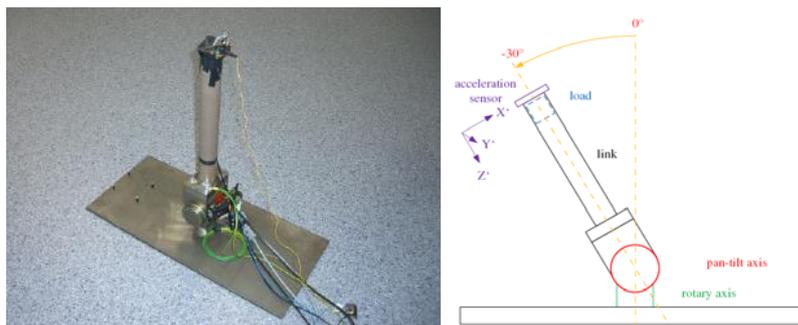
Every mechatronic system has its resonance depending on input signals or in some cases on complex system specific issues. That resonance can excite an oscillating end-effector. This inappropriate oscillation leads to a poor dynamic behavior. In most cases these disturbances haven't been measured and used for control due to mechanical as well as sensor overhead reasons. Never the less a solution for eliminating or at least reducing these transient effects is of interest. Hence, the method of half-cycle posicast control can be applied here. We may introduce the digital implementation of hardware implementation as well as the simulation results along a real system with a state of the art modular robotics module.

The origin of posicast control is based in the late 1950s due to [6]. This feedforward method was more investigated in 1960s from [1, et. al.]. Further applications have been made in 2000s due to [2, et. al.]. The technique is based on a positive cast namely the posicast in the set-point signal to a system. Even lightly damped systems can be shifted to a system having nonoscillating (step-)responses. Ideally the system specific parameters of a linear time invariant system are known;

then a totally elimination of oscillations can be achieved [1, 2, 4, 6]. In the following we'll show the implementation to a discrete control as well as the way how to extract the necessary information to adjust the posicast control. The solution at the end works without the use of a further/extended host system like e.g. a PLC. Therefore we may say that the system is embedded. The discrete implementation of the half-cycle posicast technique for a MD, together with the applied norm to last in a positioning system without any offset (**Fig. 6** and formula 10) will be introduced by the authors. The used experimental setup shows along “pure” theory and derivatives of original works from [1, 2, 6] the appliance of the technique.

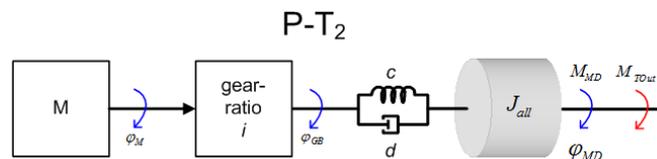
## 2 The experimental setup

A MD module from the company SCHUNK was used where a rotary axis is combined with a pan-tilt axis. As already mentioned, the motor, gear-box, electronics and control are already part of this MD. The oscillation is measured with an accelerometer mounted at the end-effector of our experimental setup. This is shown in the following **Fig. 1**.



**Fig. 1.** Experimental setup with SCHUNK-PW70-module. [3, 4]

Transient oscillation effects at the end-effector can be modeled as a  $P-T_2$  torsional damped spring mass system. [3, 4]



**Fig. 2.**  $P-T_2$  system.

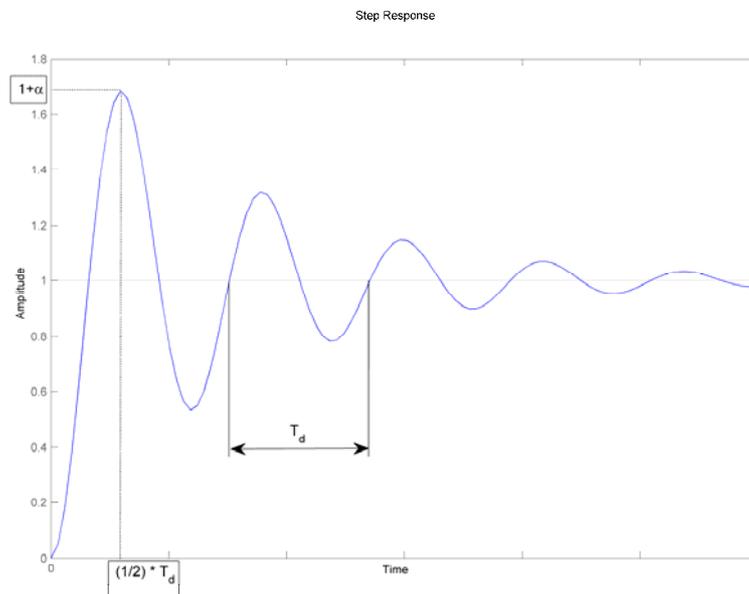
Where  $c$  is the torsional spring constant and  $d$  the damping coefficient. The motor angle  $\varphi_M$  is reduced by the gear-ratio  $i$  to  $\varphi_{GB}$ .  $\varphi_{MD}$  is the output of the MD, where the

momentum  $M_{MD}$  is generated.  $J_{all}$  is the moment of inertia where load, motor and gear-box elements are summarized. Hence, a system transfer function by applying i.e. Laplace transformation can be stated out to [3, 4, 5]:

System transfer function [3, 4]

$$G(s) = \frac{\Phi_{MD}(s)}{\Phi_M(s)} = \frac{K \cdot i}{1 + \frac{d}{c}s + \frac{J_{all}}{c}s^2} \quad (1)$$

Note:  $K$  is just a gain (i.e.  $K=1$ ). Having such a system leads to a step response of the form like shown in the figure below:



**Fig. 3.** Step response of a damped oscillating system P-T<sub>2</sub>

We clearly can see the period  $T_d$  of the damped (angular) oscillating frequency  $\omega_d$  which can also be stated out to:

Damped (angular) oscillating frequency [3, 4]

$$\omega_d = \frac{2\pi}{T_d} = \omega_0 \cdot \sqrt{1 - D^2} \quad (2)$$

Where  $D$  is the damping ratio and  $\omega_0$  the (angular) eigenfrequency.

Damping ratio and (angular) eigenfrequency [3, 4]

$$D = \frac{d}{2 \cdot c \cdot \omega_0} \geq 0 \quad ; \quad \omega_0 = \sqrt{\frac{c}{J_{all}}} \quad (3)$$

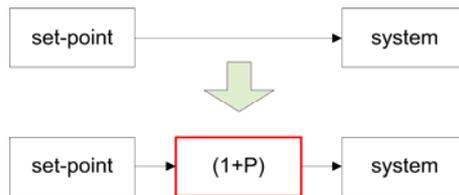
The resonance frequency of such a system can be seen as the frequency which should not be contained in the input signal (i.e. set-point) of the system. Otherwise the system undesirably oscillates with  $\omega_d$  which can last in some cases destructively.

Resonance (angular) frequency [4, 5]

$$\omega_r = \frac{2\pi}{T_r} = \omega_0 \cdot \sqrt{1 - 2D^2} \quad (4)$$

### 3 Posicast control

Having a lightly damped system like introduced in **Fig. 1**, **Fig. 2** and **Fig. 3**. Then the performance in sense of a nonoscillating end-effector can be improved when adding posicast ( $I+P$ ) between the set-point generator and the input of the system like shown in **Fig. 4**: [6]



**Fig. 4.** Posicast scheme.

In the upper half there is the “normal” case shown. In the lower case, posicast is applied.

The way how to extract the values regarding the variables in the following formulas 5 and 6 are indicated in **Fig. 3**. Thus, the transfer function of ( $I+P$ ) posicast can be understood more easily.

### 3.1 Standard half-cycle posicast

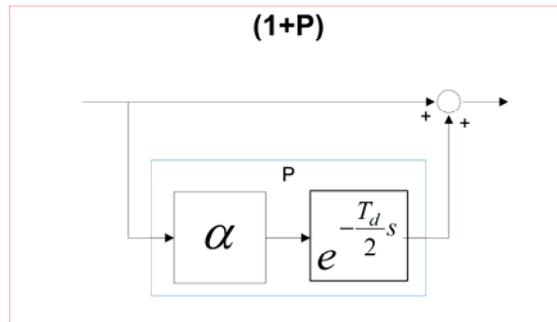
Half cycle posicast (delay-part) [6]

$$P_{(s)} = \alpha \cdot e^{-\frac{T_d}{2}s} \quad (5)$$

Half cycle posicast (gain-part) [6]

$$\alpha = e^{-\frac{T_d}{2}} \quad (6)$$

The following **Fig. 5** can be seen as a subset to **Fig. 4** and may show the implementation of the half cycle posicast (see additionally formula 5, 6). [6]



**Fig. 5.** Half-cycle posicast

Especially **Fig. 5** clearly shows that the output of  $(1+P)$  is a continuing addition of the “normal” set-point signal  $(I+)$  with a time shifted cast of the same signal  $(+P)$ . Hence, applied to an i.e. position control the endpoint may not be as expected unless nonoscillating.

### 3.2 Normed half-cycle posicast

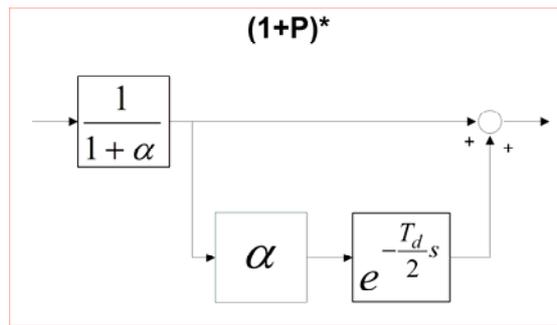
Therefore a norm can be done introduced in the following formula:

Normed half-cycle posicast

$$(1 + P_{(s)})^* = \left[ \left( \frac{1}{1 + \alpha} \right) \cdot (1 + P_{(s)}) \right] \quad (7)$$

Note: The *asterisk* in  $(1+P)^*$  only indicates the norm.

The next **Fig. 6** additionally shows among posicast the norm graphically:



**Fig. 6.** Normed half-cycle posicast scheme

#### 4 The implementation

The used MD uses a digital signal processor (DSP) for control. Hence, a discrete implementation of posicast is needed. Let's therefore keeping in mind [5]

Euler's notation:

$$z^{-x} = e^{-x \cdot T_A \cdot s} \quad (8)$$

Where  $T_A$  is the sampling period of the discrete control in the MD. The  $z$  indicates the discrete relation and  $s$  the frequency domain. The  $x$  is a positive integer variable.

Together with formula 5 we can identify the value of  $x$ ; which is stated out in formula 9. To achieve an applicable solution,  $x$  must be an element of  $\mathcal{N}$  and greater than zero. This is the case when the division anyway lasts in an integer. If  $x$  is greater than zero but not an integer, we need to round. In this case the rounding error can be reduced when the sampling period  $T_A$  is reduced.

Discrete time delay

$$e^{-x \cdot T_A \cdot s} = e^{-\frac{T_d \cdot s}{2}} \quad (9)$$

$$x \cdot T_A = \frac{T_d}{2}$$

$$x = \frac{T_d}{2 \cdot T_A}$$

Having the value of  $x$ , we can implement the “delay” due to Euler (formula 9) like a first-in-first-out (FIFO) buffer on the DSP. Let’s therefore convert formula 7 to the discrete notation: [5]

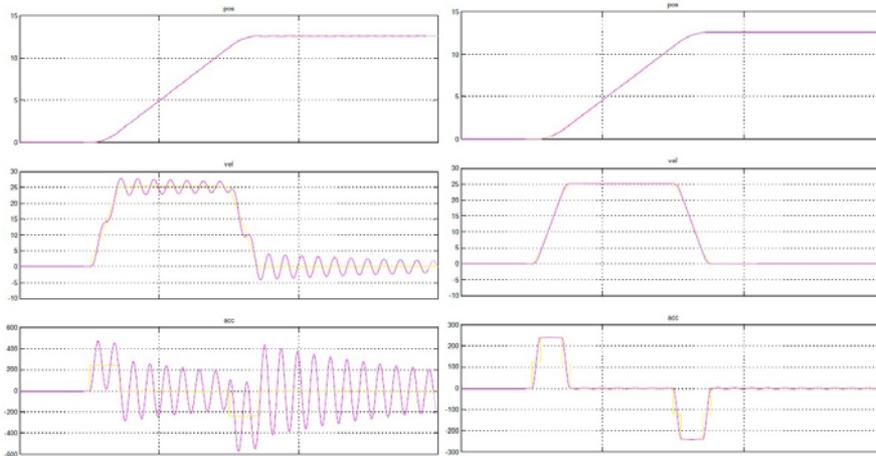
Discrete normed half-cycle posicast

$$(1 + P_{(z)})^* = \left( \frac{1}{1 + \alpha} \right) \cdot (1 + \alpha \cdot z^{-x}) \quad (10)$$

The FIFO gets triggered via the control loop clock cycle which is equal to  $T_A$ . In total it can be explained like the following: The set-point generator itself produces set-point input values each  $T_A$  cycle to feed the i.e. position controller. When multiplying this value by the norm-factor (see add. formula 7, 10) it can be stored to the FIFO. The proper set-point value, where posicast is applied, is then calculated by adding the actual normed value (which we just want to store in the FIFO) with the  $x$ th value stored in the FIFO multiplied by  $\alpha$  (formula 6). Hence, the length of the FIFO doesn’t have to be greater than  $x$ .

## 5 Results

To have an example of a real industrial application lets combine results of a position control using the trapezoidal trajectory generation method. Trapezoidal means, that the velocity of the movement has the shape of a trapezoidal. Similar to the step-response in **Fig. 3**, an oscillation will arise like shown in **Fig. 7** on the left hand side. The upper graphs show the position, the middle show the velocity (trapezoidal) and the bottom show the acceleration. On the right hand side we clearly see, that no oscillation was visible anymore when posicast is applied. Hence, the performance of the MD could be improved due to a nonoscillating end-effector when target position is reached. Moreover no adjustment of the target position need to be done due to the introduced norm. Further the technique could be implemented embedded which means by software in the DSP-firmware directly of the MD.



**Fig. 7.** MD trapezoidal movement over time: (*left*) without and (*right*) with posicast

The theory as well as the discrete implementation of the normed half-cycle posicast technique introduced in this contribution may improve the performance of new MDs. So we may say with posicast an “intelligent” MD can be build up. So far the method fits well for constant loads. Future works should focus on a method to adapt in real-time the posicast settings for variable loads. Thus a full range elimination of unwanted oscillation might be possible.

**Acknowledgments.** The authors would like to thank the company SCHUNK GmbH & Co. KG in Lauffen (Germany) for their support.

## References

1. Cook, G., *An application of half-cycle Posicast*, IEEE Transactions on Automatic Control, vol. 11, No. 3, ISSN: 0018-9286, S. 556--559, 1966
2. Feng, Q., Nelms, R.M., Hung, J.Y., *Posicast-based digital control of the buck converter*, IEEE Transactions on Industrial Electronics, vol. 53, No. 3, ISSN: 0278-0046, S. 759-767, 2006
3. Häuptle, P., Hubinský, P., Gruhler, G.: *Time Domain Identification of a Mechatronic System*. Germany Student Conference, Hamburg-Harburg, IEEE, May 2010
4. Häuptle, P., Hubinský, P., Gruhler, G., Fellhauer, B., *Modellierung des Schwingungsverhaltens eines mechatronischen Antriebes hinsichtlich dem Entwurf verschiedener Regelungstechniken*, IFM Winterthur, 3./4. Nov. 2010
5. Lutz, H., Wendt, W., *Taschenbuch der Regelungstechnik: mit MATLAB und Simulink*; 8th ed., Harri Deutsch, 2010
6. Smith, O. J. M.: *Posicast control of damped oscillatory systems*. IEEE-IRE, vol. 45-9, ISSN: 0096-8390, S. 1249–1255, Sep. 1957

# Model-free Approaches in Learning the Multivariate Linear Regressive Models

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**Abstract.** Learning from data means to have a learning method that is an algorithm implemented in software that estimates an unknown dependency between a system's inputs and outputs from the available data, namely from known samples. Once such a dependency has been accurately estimated, it can be used for prediction of future system outputs for known input values. The paper provides a series of results concerning the learning from data a linear regressive model in a multivariate framework. The parameter estimates of the of the regressive model are determined using the maximum likelihood principle and the adaptive learning algorithms are derived using the gradient ascend technique. We consider a probabilistic approach to model the effects of both, the latent variables and noise, the cumulative effects of latent variables and noise being modeled in terms of multivariate Gaussian distributions. The predicted output is expressed as the sum of a linear combination of the entries of the input and the random vector that represents the effects of the unobservable factors and noise. The parameters of the regressive model are estimated by maximizing the likelihood function for given finite length sequence of observations, and an adaptive learning algorithm of gradient ascent type is also proposed.

Briefly, the proposed learning framework can be described as follows: the learning component is designed as a noisy multivariate linear system, that is, for the  $n$ -dimensional input  $x$ , the computation of the  $m$ -dimensional output is a performed according to the rule  $y = \beta^T z + \varepsilon$ , where  $\beta$  is a matrix of parameters,  $\varepsilon$  is a random vector representing the effects of the noise and/or possibly a series of unobservable variables (latent factors), and  $z = (1, x)^T$ . Being given the finite length sequence  $\mathcal{S}_N = \{(x_i, y_i) | 1 \leq i \leq N\}$  of input-output observations taken on the system aimed to be learned, we estimate  $\beta$  and the first order statistics concerning  $\varepsilon$ . We consider the Gaussian repartition  $\mathcal{N}(\mu, \mathbf{I}_m)$  to model the noise, where  $\mu$  is an unknown  $m$ -dimensional vector. The core result in our work can be stated as follows: *The maximum likelihood estimates of the parameters  $\beta, \mu$  are  $\hat{\beta}_{MLE} = (Y(ZA)^+)^T, \hat{\mu}_{MLE} = \frac{1}{N} (Yu - Y(ZA)^+Zu)$ , where  $Y = (y_1, \dots, y_N), Z = (z_1, \dots, z_N), u = (1, \dots, 1)^T \in \mathbb{R}^N, A = \mathbf{I}_N - \frac{uu^T}{N}$ .*

**Keywords:** linear regressive models, learning from data, supervised learning, maximum likelihood principle, adaptive learning.

# Multiagent Systems as Modulated Architectures in Software Engineering Process

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**Extended Abstract.** This work presents an architectural model of agent based system that can support us to assess the suitability of a multiagent system as a better solution to many technological problems. There are two main key aspects we aim to solve in this approach: **modulated architecture software development and self-management**. The functionality of the system can be achieved by collaborating subsystems. The centralized control is combined with the ability of agents to self-manage unexpected situations. The main problem we are trying to solve is presented here starting from the observation that developing and managing today's distributed software applications is complex. We identified three important reasons for the increasing complexity that characterize the family of systems we target: there are several stakeholders involved in a system developing process which bring in conflict quality requirements. Then systems are subject to highly dynamic and changing operating conditions and they produce activities which are localized, so the global control is hard to achieve or even impossible. There are existing architectures for multiagent systems but the flexibility and the autonomy during the system incrementing process are compromised.

As a possible solution we propose an approach for developing such complex systems by integrating multiagent systems in a referential architecture software engineering process. Agent based systems architectures are able to handle the complexity of software by putting them in the center of software development process. We promote a new perspective on software engineering with multiagent systems. Whereas agent-oriented software engineering generally considers multiagent systems as a radically new way of engineering software, we presented an engineering approach which integrates multiagent systems as software architecture in a general software engineering process. In our research, we have developed a referential architecture for information agent systems. This architecture provides a reusable architectural approach to develop systems in which flexibility and openness are important quality goals. We have validated the usefulness of architecture development with information agent systems in practice. Distributed algorithms are complex, hard to debug, and difficult to evaluate. The evaluation of the software architecture of the agent-based system is invaluable. Debugging a decentralized system is hard so thorough simulations we give to a certain extent guarantees about global properties of the system. Another concrete contribution of our research is: we have developed a new perspective on the role of the environment in information multiagent systems.

**Keywords:** multiagent system, information agent, modulated architecture, decomposition, self-management.

# Literature Review on Investigation of the National Readiness for Electronic Health Record System in Transition Country

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**Abstract.** *Purpose* - A rapid development has taken place in the e-Health area in Europe in the last decade, and both health care professionals and patients have been able to profit from it. Till current date there are no studies conducted on the Macedonian e-Health system.

*Design/methodology/approach* - A literature review will be conducted covering themes relevant to e-Health and Electronic Health Record (EHR) in EU and SEE countries, and will provide the background to design the future research. In the context of the research, a web-based survey will be conducted on relevant publications on health informatics. According to Berg (2001): "The implementation of comprehensive information systems in health care practices has proved to be a path ridden with risks and dangers. It has become evident that there are many more failure stories to tell than there are success stories and the more comprehensive the technology, or the wider the span of the implementation, the more difficult it appears to achieve success [...] whether an information system is 'successful' or not is decided on the work floor".

Over the last 10 years, there have been numerous studies using either the TAM or TAM2 to predict intentions and the actual use of technology in several domains. Possible usage of Technical Acceptance Model (TAM) will be investigated in order to measure the intentions and actual use of the technology by health care professionals in the Republic of Macedonia.

*Research limitations* - The literature review only, at this phase limits the final findings. The literature review in this study will be used as a base for the future research in the e-health sector in SEE.

**Keywords:** e-Health, EHR

**SOCIETY & HUMAN  
DEVELOPMENT: PSYCHOLOGY,  
POLITICS, SOCIOLOGY &  
EDUCATION**

# Internal Migration and Societal Security in the European Union: The Role of the European Commission

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Migration emerged, both in the concerns of the decision-makers and theoreticians, as one of the most important issues labelled as societal security in the peaceful security community represented by the European Union (EU). This paper aims to analyze the role of the European Commission (EC) in the emergence, evolution and decline of societal security issues related to migration. It does so by using the theoretical framework provided by the securitization theory especially in its latest, sociological variant. The chosen case-study is the expulsion of Romanian and Bulgarian Roma people from France. Migration involves two types of interrelated security issues: societal and economic. Societal security problems have as their referent object the identity of political communities. The economic security related to migration refers to jobs and the access of migrants to social benefits. In the studied case, the importance of societal security far outweighs that of economic security because of the perceived identity differences concerning the Roma population in the host societies. The approach used to investigate this issue will be sociological securitization theory. In its first formulation, securitization theory was concerned with security as a speech act, emphasizing the importance of discourse and its rules for the emergence of a security issue. The sociological variant also focuses on practices, context and the power relations that characterize the construction of threat. This is of particular importance since it stresses how different securitizing actors call upon distinct audiences and sources of legitimacy. In order to study these processes I will use a qualitative methodology focused on analyzing the discourses and practices involved. This paper determines the way in which the EC becomes a supranational securitizing actor and how it manages to deal with and to counter the societal securitizations of member states. The EC uses a series of discourses and practices that call on a common European identity in which the past of

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deportations and discrimination is depicted as a threat. The legitimacy of these actions is based on a series of institutional instruments and the audience to which they appeal is mainly member state elites, but also the public opinion. The limitations of the research are related to the particular identity manifested by the Roma people as a migrant population and to the fact that it only concerns internal migration in the EU (although a small part of the Roma migrants come from non-EU member states). The contribution of this paper lies in focusing on the EC as an actor involved in societal securitization and security issues. The EC has been mentioned as an important actor in previous studies on migration as a security issue but these researches seldom focused on the EC as a securitizing actor proper. This is important since the EC is the main supranational institution of the EU, a polity of a special kind sometimes regarded as a lesser security actor but that nonetheless structures the European region and provides its general identity coherence.

**Key words:** societal security, sociological securitization theory, securitizing actor, European Commission.

## 1. Introduction

This paper aims to analyze the role of the European Commission (EC) in the decline of societal security issues related to internal migration in the EU. More specifically, it seeks to determine how the EC counters the societal securitizations of member states. It does so by using the theoretical framework provided by the securitization theory especially in its latest, sociological variant. The chosen case-study is the expulsion of Romanian and Bulgarian Roma people from France. The EC uses a series of discourses and practices that call on a common European identity in which the past of deportations and discrimination is depicted as a threat to the values of the EU. These actions are based on a series of institutional instruments, but also on historical memories, each addressing to different audiences. In order to study these processes I will use discourse analysis, focusing mainly on the discourses of the EC and also referring briefly to a resolution of the European Parliament (EP) concerning the issue. The limitations of the research are related to the adoption of discourse analysis as a method and to the impossibility of drawing broader conclusions because of the single case study approach.

## 2. The theory of securitization – development and conceptual evolutions

The theory of securitization was introduced by Ole Waever and subsequently developed inside the Copenhagen School of Security Studies. It proposes a discursive conception on security, in which its definition is dependent upon its successful construction inside a discourse. Securitization is a 'process through which an intersubjective understanding is constructed within a political community to treat something as an existential threat to a valued referent object and to enable a call for

urgent and exceptional measures to deal with the threat' (Buzan and Waever, 2003: 491). These measures are outside normal liberal-democratic politics.

Securitization has two essential stages that include the presentation of an issue as an existential threat (depends on the securitizing actor) and the acceptance by the public that the issue needs emergency measures. The adoption of these measures, for the removal of the claimed threat, is not a necessary condition for a successful securitization. All that is needed is 'for a platform to be made from which it is possible to legitimize emergency measures or other steps that would not have been possible had the discourse not taken the form of existential threats, point of no return and necessity' (Buzan *et al*, 1998: 25). But when the measures have been adopted, the actor doesn't rely on the social resources of rules shared inter-subjectively among units but relies on his own resources, demanding a right to govern his actions according to his own rules. (Buzan *et al*, 1998: 25). Thus, the defining characteristics of securitization are the specific rhetoric and the claim to an exceptional mode of action, based on emergency and priority of action (Stritzel, 2007: 360).

The success of a securitization depends on three facilitating conditions:

1. the demand internal to the speech act to follow the grammar of security: a) presenting an existential threat, b) a critical point of no return beyond which nothing can be done, c) a possible way out;
2. the social conditions related to the position of authority of the securitizing actor (speaker-audience relationship);
3. objects with features generally considered to be threatening that can be cited as evidence of threat. (Buzan *et al*, 1998: 33).

The key aspect of securitization theory is the acknowledgment of the arbitrary nature of threat, the conception according to which the basis of every security policy doesn't have a given "nature", but it is chosen by politicians who have an interest in defining it in a certain way (Knudsen, 2001: 359). Because of this character of the construction of threats and because of the temptation presented by securitizations, the proponents of the theory consider that securitization should be seen in a negative manner, as a failure in managing problems within normal politics. They declare themselves as supporters of desecuritization because it doesn't involve the existence of issues treated as threats against which we don't have usual means of management, but that the issues are moved outside the threat-defense thinking and back into the normal public sphere.

Some of the researchers that approached the theory of securitization, after its initial formulation, felt the need for a greater contextualization and renamed it the sociological or pragmatic theory of securitization (Balzacq, 2011). They supported the importance of discourse but also of practices that sustain a certain image of a threat. Then, the reformulations of securitization theory studied more the importance of the audience. The latter has to have a direct causal connection with the issue and to have the capacity to empower the securitizing actor so that he can adopt measures to tackle the threat (Balzacq 2011: 9). The support given by the audience can be of two types:

formal (given by, say, a legislative institution) and moral (given by the public opinion) (Roe, 2008). Gaining formal support at the expense of destroying one's ties with the public opinion may damage securitizing actors. Thus, these researchers emphasized how different actors call upon different sources of legitimacy and conclude that the 'securitization research agenda requires an [...] institutional analysis [that takes into consideration the fact that] the institutional locus of effective securitization cannot be restricted to [...] Defense departments and foreign ministries.' (Williams, 2003: 527-528).

### 3. Security community, societal security and migration

This paper starts from the premise that the EU is a security community: 'a transnational region comprised of sovereign states whose people maintain dependable expectations of peaceful change' (Adler and Barnett, 1998: 30). Its characteristics even inscribe it in the category of tightly coupled security communities: it forms a society of mutual help and possesses a system of rules that guarantees a form of post-sovereign governance, based on supranational and transnational institutions and a system of collective security (Adler and Barnett, 1998: 30).

The author of securitization theory, Waever (1998: 76), notices that the construction of this community depends on an identity manifested through the securitization of the traditional European power politics. Thus, implicitly, the European militarist past, dominated by the balance of power, is constructed as a threat. According to this discourse, adopted by the EU and even national actors,

the power of the old configuration poses an existential threat to integration and thereby security in Europe. Therefore, a point of no return exists and it is mandatory to ensure enough integration to avoid crossing this point. Integration is thereby invested by a security quality, which is actually mobilized [...] whenever a change of policy direction is considered. (Waever, 2005: 163)

In such a context, state and military security is replaced, as a dominant type of security, with societal security (Waever *et al*, 1993). The latter is defined as: 'the ability of a society to persist in its essential character under changing conditions and possible and actual threats. More specifically, it is about the sustainability, within acceptable conditions for evolution, of traditional patterns of language, culture, association, and religious and national identity and custom' (Waever, 1993: 23). If state security concerns its sovereignty, societal security concerns its identity.

Migration is often approached by authorities as a threat to national identity (Guiraudon, 2000; Huysmans, 2000). As Huysmans (2000: 757) observes, security policy is a policy that can mediate the belonging to a political community. It conserves or transforms the political integration and the criteria for membership through the identification of threats. In security practices, the social and political identification of a community develops as a response to threats. The community defines what it considers as the 'good life' through the reification of instances of societal danger, such as the

criminal or the invader. Thus, the fortress mentality in constructing security expresses a powerful impulse towards the securitization of migrants as intruders in the harmonious and ordered cultural space of the nation-state:

Given the evaporation of clear markers of social and national identity through processes of globalization and internationalization at least within Europe, this traditional logic of security becomes increasingly problematic in that it makes the life of a growing number of people less secure in political, social and cultural terms (Behnke 2000: 98).

This interpretation of migration is based on the assumption that a political community is culturally homogenous and the threat to it must be countered either through keeping the migrant at a lower status than the citizen (thus limiting its rights), or through expelling him from the community (Behnke 2000: 97-98).

#### **4. The French Roma affair and the EC**

Societal securitization was attempted by the French government against Roma people from Romania and Bulgaria in the summer of 2010. By invoking an existential threat to the 'republican order' and 'the values of the French society', president Sarkozy (2010) and the French government applied policies of mass expulsions. In the context of the regulations on free movement inside the EU, these measures were indeed exceptional and characterized by emergency. Targeting an entire community, as opposed to individuals, makes even clearer the transformation of this issue into one of societal security: the memo from 5<sup>th</sup> of August 2010, released by the French government in order to implement its measures specifically focused on the Roma people.

The first reaction of the EU was the declaration of Commissioner Reding on the 25<sup>th</sup> of August which was rather soft in its tone. It mentioned that the member states must respect the rules and common values of the EU, especially those of non-discrimination and freedom of movement. Thus, the declaration delineates an object of reference to be protected: the EU as 'a community of values and fundamental rights'. Moreover, Reding asserts the role of the Commission in this context: 'The European Commission will watch over this' (Reding 2010a). This position is followed by an analysis of Commissioners Reding, Andor and Malmstrom, whose conclusions merely affirm the necessity of further investigations on the legality of the expulsions.

The reaction of the EP, through the resolution adopted on the 9<sup>th</sup> of September, was more radical. It urged 'those authorities to immediately suspend all expulsions of Roma' and rejected 'the inflammatory and openly discriminatory rhetoric that has characterized political discourse'. The resolution observes that measures such as those of France 'are in violation of the EU Treaties and EU law' and draws attention that the EU aims, above all, 'to maintain and promote an open and inclusive society and EU citizenship' and that the answer of the Commission was not strong enough (EP, 2010).

The declaration that fully securitizes the actions of France is made by Commissioner Reding on the 14<sup>th</sup> of September. She opens the declaration appealing to emotional reactions by reminding of the European racist and xenophobic past: ‘This is a situation I had thought Europe would not have to witness again after the Second World War.’ Reding identifies an existential threat to the values of the EU: ‘fundamental values and European laws are at stake’ and emphasizes their importance for the cohesion of the EU: ‘a Union which is held together not by force, but by respect of the rule of law agreed upon by all Member States, including France.’ Through this last assertion, Reding also identifies a point of no return. What she means is: if we continue like this, the construction will eventually crumble. She is even more precise in this regard: ‘enough is enough’ (Reding, 2010b). The way out that she suggests is the application of the infringement procedure. It is necessary to discuss whether this measure has an exceptional character, outside normal politics. Since the EU and the EC, as its institution, don’t have enforcement capabilities *per se*, the infringement procedure is the closest to the definition of emergency measures. This fact is all the more evident in this case, where the sanction was going to apply to France: an important state, a founding member of the EU, which expressed this status in this controversy.

The securitization made by the EC also fulfils the second facilitating condition: the position of authority. The EC is the guardian of the EU Treaties. This legitimacy must be understood in the context of the ratification of the Lisbon Treaty and the fact that the EU Charter of Fundamental Rights became legally binding through it. This adds substance to the European citizenship and to the rights associated to it and facilitates the EC to take a stand when rights are violated. The third facilitating condition is clear: the expulsions are actions that can be cited as a threat to the values of the EU.

An essential matter for the success of a securitization is the acceptance by the public. The rhetoric of the Commission was intended, on one hand, to a bureaucratic audience: through an appeal to legal and institutional arguments, and, on the other hand, to the public opinion, through the invocation of historical memories that produce emotional reactions. We must note that the support for Reding, already manifested by the EP, was confirmed in the case of the College of Commissioners by the president of the EC. Additionally, many NGOs (and even great parts of the French society) expressed their support for countering France’s actions. Even if some states (among which Italy) expressed their approval for the policy of the French government, it can be said that the EC gathered enough support to launch exceptional measures. This happened through the opening of the infringement procedure which ended early, in the pre-litigation administrative phase when a state is required to conform voluntarily to the requirements of the Treaties.

## 5. Conclusions

This paper analyzed the way in which the EC, as the main supranational institution of the EU, counters state’s securitizations, presenting them as a threat to the values of the community to which these countries belong. Specifically, the EC securitized the recent events as a return to the European xenophobic past thereby proposing a larger form of belonging to a political community with cosmopolitan characteristics, in which practices of collective expulsions don’t have a place. As in the case of the

securitization of the European militarist past, (political) integration (and respecting its institutions, such as the European citizenship) is invested with a security characteristic. This securitization also managed to acquire enough support to mitigate the effects of France's societal security discourse related to internal migration in the EU.

The EC appeals, in its securitization, to a type of legitimacy that is different from the one of the nation-state (which derives it from the alleged representation of the security interests of its society). The EC's legitimacy is derived from the normative commitments of the EU, expressed through values that sustain its identity and implicitly, its actions. This makes them an essential part of the EU project and an element to be protected not only because of the economic benefits that accompany them but also because they represent the underlying base of a specific form of political community, built in the light of past (negative) experiences. The position of the EC can be interpreted as evidence (albeit singular and relating only to internal migration) that the EU will play an increasing normative role in the security issues of states.

## References

1. Adler, E. and Barnett, M. (1998) Security communities in theoretical perspective. In: E. Adler and M. Barnett (eds.) *Security Communities*. Cambridge, Cambridge University Press, 3-28.
2. Balzacq, T. (2011) A theory of securitization. Origins, core assumptions and variants. In: T. Balzacq (ed.) *Securitization Theory: How Security Problems Emerge and Dissolve*. London, Routledge, 1-30.
3. Behnke, A. (2000) The Message or the Messenger?: Reflections on the Role of Security Experts and the Securitization of Political Issues. *Cooperation and Conflict*, 35(1), 89-105.
4. Buzan, B. and Waever, Ole (2003) *Regions and Powers: The Structure of International Security*. Cambridge, Cambridge University Press.
5. Buzan, B. et al. (1998) *Security: A New Framework for Analysis*. Boulder, CO., Lynne Rienner.
6. Guiraudon, V. (2000) European Integration and Migration Policy: Vertical Policy-making as Venue Shopping. *Journal of Common Market Studies*, 38(2), 251-271.
7. Huysmans, J. (2000) The European Union and the Securitization of Migration, *Journal of Common Market Studies*, 38(5), 751-777.
8. Knudsen, O. F. (2001) Post-Copenhagen Security Studies: Desecuritizing Securitization. *Security Dialogue*, 32(3), 355-368.
9. EP, (2010) *European Parliament resolution of 9 September 2010 on the situation of Roma and on freedom of movement in the European Union*, Strasbourg, EP, <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P7-TA-2010-0312+0+DOC+XML+V0/EN>, [accessed 18.05.2011]
10. Reding, V. (2010a) *Statement by Viviane Reding, Vice-President of the European Commission and EU Commissioner for Justice, Fundamental Rights and Citizenship, on the Roma situation in Europe*, Brussels, 25 August 2010, <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/10/384&type=HTML>, [accessed 17.05.2011].
11. Reding, V. (2010b) *Statement on the Latest Developments on the Roma Situation*, Brussels, 14 September 2010,

- <http://europa.eu/rapid/pressReleasesAction.do?reference=SEPECH/10/428>, [accessed 17.05.2011].
12. Roe, P. (2008) Actor, Audience(s) and Emergency Measures: Securitization and the UK's Decision to Invade Iraq. *Security Dialogue* 39(6), 615-635.
  13. Sarkozy, N. (2010), *Discours de M. le Président de la République à Grenoble - Prise de fonction du nouveau préfet*, <http://www.elysee.fr/president/root/bank/pdf/president-9399.pdf>, accessed 17.05.2011.
  14. Stritzel, H (1993) Towards a Theory of Securitization: Copenhagen and Beyond. *European Journal of International Relations*, 13(3), 357-383.
  15. Williams, M. C. (2003) Words, Images, Enemies: Securitization and International Politics. *International Studies Quarterly* 47(4), 511-531.
  16. Waever, O. (1998) Insecurity, security, and asecuritization in the West European non-war community. In: E. Adler and M. Barnett, (eds.) *Security Communities*. Cambridge, Cambridge university Press, 69-118.
  17. Waever, O. (2005) The Constellation of securitizations in Europe. In: E. Aydinli and J. Rosenau (eds.) *Globalization, security, and the nation-state : paradigms in transition*. Albany, State University of New York Press, 151-174.
  18. Waever, O. *et al.* (1993) *Identity, Migration and the New Security Agenda in Europe*. London, Pinter Publishers Ltd.
  19. Waever, O. (1993) Societal security: the concept. In: Ole Waever *et al.*, *Identity, Migration and the New Security Agenda in Europe*. London, Pinter Publishers Ltd, 17-40.

# The Impact of the Islamic Communities on the Policy Making in Turkey after the 1980 Coup Era: The Comparative Case of Fethullah Gulen Community, Ismail Aga Community and Menzil Community

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Since the establishment of the Turkish Republic, the dilemmas between secularism and Islam are two key elements for the country's economic, social and especially political life. Although these elements create tensions within interpretations of public administration and economics, Turkey is effectively a "bridge state" between Asia and Europe. In Turkey, while the East symbolizes traditional institutions and religion, namely Islam; the West is associated with modernization and the secularisation of the state. These two terms create a duality in the country, while Islam or the Islamic characteristics of the state were emphasised by 'poor and marginalized sectors of the population', modernity, secularism (in other word laicism) have been emphasised by 'the governing political elite' (Yavuz, 2000:22). Though society has not had any problem with this dual structure before, the 1980 coup and the distinguishable and unique Özal era- in terms of its economic and political liberalization policies- brought serious transformations with itself. While the economic liberalization increased the participation of the private sector into the public sector, the application of the New Public Management ethos into the classical public administration structure illustrates the transformation of political structure. Moreover there is, the increasing involvement of Green Money, which refers the money comes from Islamic Capital, into the policy making process since 1980s. As scholars (Mardin, 1990; Yavuz, 2000 and Saribay, 2001) underline, for more than 30 years *Islamic Activism* is one of the key domestic policy dynamics of the country. For this reason it is not possible to ignore the increasing impact of religious communities and Green Money on the Turkish Policy Making Process. This research seeks to investigate the impact of the main Islamic Communities on the educational policy making in Turkey after the 1980 coup era. By answering (1) *how do the policy making stages work in Turkey?*, (2) *how Turkey's education policy making process*

*has been reshaped under the new governmental formations?, , (3) What is the involvement of the religious groups on education policy making in Turkey, with an emphasis on influence of Green Capital?* the researcher aims to show the socio-economic transformation of the country. Although there are many studies on the impact of either (or both) religion and religious communities on the social structure of the country, the impact of these communities on policy making and public administration has never been examined deeply. This study will provide detailed analytical evidence about the relation between religious communities and public administration. This study is an interpretive qualitative case study of the Turkish policy-making process and public administration. The case study will collect data from different primary and secondary sources. Firstly, in depth interviews, focus groups and participant observation will be used in this research in order to get information on the impact of the religious communities not only from a public administration angle but also on the social structure. Then by focusing on military reports, newspapers and policy papers, those groups' impact on the policy-making process will be analyzed. Finally by comparing primary and secondary data, the researcher aims to obtain information on the power of religious communities in Turkish Public Administration.

**Key Words:** Public Administration, Policy Making, Religious Communities, Green Money, New Public Management.

## 1. Introduction

Being a country between Asia and Europe not only carries geographical meanings for Turkey but also affects country's socio-politic structure since its establishment. In other words; being between East and West has different sense for Turkey's administrative structure. For Turkey, while The East symbolizes traditional organizations and the religion, specifically Islam; The West means that either modernization or secularization of the state and its divisions. That is why, under the reflection of these two polar, the state and society relations redefined or re-established by the New Government in 1923. For instance, on the one hand the countries secular and western features were stressed by "*governing political elite*", on the other hand the Islamic characteristics of the country was emphasised by "*poor and marginalized sectors of the population*". As Yavuz (2000) claimed that, Islam has become the contrariety characteristics for the excluded sectors of Turkish society<sup>2</sup>.

Consequently, since the establishment of the Turkish Republic, *secularisation* and *islamisation* have become one of the most important problems for both politicians and

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<sup>2</sup> For many years, the dual structure of the country has been accepted by the society, however; the growing effects of economic and political liberalization and the shifting patterns of the religious authority have changed some dynamics of the country. Policy dynamics are one of the shifting dimensions of the country. Again, as Yavuz (2000) said the emergence of Islamic Activism is one of the domestic policy dynamics of the country. Therefore the researcher aims to explore both if religious groups affect the policy making process and how they affect the process.

states. Especially, after 1980s when the politicians and religious communities' leaders' relationships were visible, both of the movements appear on the political parties agendas at the same time. The impact of New Public Management tools which aim both to narrow the boundaries of the state and to draw in other non-state providers also create opportunities for faith groups to become involved in policy provision during implementation. The increasing challenge between them and the increasing power of religious groups on economy, politics and policy implementation, shape this research agenda.

Islam keeps its importance not only in politics but also in the socio-economic spheres of life. Yet one of the prominent elements of this issue, that is the concept of Islamic Community, is mostly neglected by the scholars (Davison, 1998 and Tapper, 1991). This research attempts to close this gap by giving a preliminary idea on the organizations of these groups. While doing this, it will make a comparison on *cemaatler* between pre and post-1980 coup in terms of socio-political and socio-economic transformations. Definitely, the raise in the level of these groups' activities is not a totally new suggestion. Yet, what I will do in the research is test this suggestion and consider new patterns of activities embraced by these *cemaatler*. Thus, I argue that these communities activities can be explained with the socio-political and economical conditions of the day also how they use these conditions for their own interpretation of Islam.

As it mentioned above, this research seeks to investigate the impact of the main Islamic Communities on the educational policy making in Turkey after the 1980 coup era. Thus, by answering the research questions<sup>3</sup>, the researcher aims to show the both socio-politic and socio-economic transformations of the country. Also, here it is

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<sup>3</sup> In this research, the researcher aimed to investigate if religious groups/ movements affect the policy making process, particularly education policies, how they affect the process and what are the gaps in the Turkish government's policy making process that are being exploited/filled by those movements? For this reason the research has been shaped around there main research questions which clearly share the same aim. Additionally, through asking these research questions, the researcher intends to explore the role of 'Green Money', which is controlled by the religious groups. The three questions could be identified under thes subtitles:

(1) Turkey's educational policy making process:

*How has Turkey's educational policy making process been reshaped under the new governmental formations?*

(2) Policy making stages in Turkey:

*How do policy making stages work in Turkey?*

(3) The involvement of the religious groups:

- a) *What is the involvement of the religious groups on educational policy making in Turkey, investigating the growth and influence of Green Capital?*
- b) *Why the religious groups involve in educational policy making in Turkey, investigating the growth and influence of Green Capital?*

possible to say that this questions show us the main objectives of the researcher. Briefly, to investigate the impact of Cemaaatler (Religious Communities) and *Green Money*<sup>4</sup> in political and social life, then to analyse the issues in Turkish secular education policy making process and its challenges with religious groups/citizens' demands could be define as the preferential objectives of the researcher. Following these to understand the socio-economic transformation of the country between 1980s and 2000s and the role of 'Political Islam' in this transformation is one of the other objectives. And finally by using the above mentioned aims and objectives' outcomes, the researcher aims to propose a new type of policy making model which increases both the involvements of the actors and the degree of monitoring level of implementation in their favour.

Additionally, the lack of analyses of public administration on Turkey in general, particularly in the international and comparative literature - a reflection of its 'anomalous' geo-political and cultural status - possibly EU entry, 'bridge to Asia' ,all that will fill the gap in the main public administration literature on Turkey. Finally, the research will provide a greater understanding of states where there are tensions between modernisation and democratisation and demands for 'traditional values', i.e. Turkey as a microcosm for possible democratisation

## **2. Overview of Research Topic<sup>5</sup>**

### **2.1 Theoretical Background (The Idea of Secularisation)**

(1) According to the 1924, 1961 and 1982 Turkish Constitutions, Turkey is a secular state which simply means the absence of a state religion, and the subsequent separation of the state and religion, is considered a prerequisite for such freedom of thought. Although it seems that these constitutions have a clear definition, a very recent debate on secularism in Turkey functioned as a reminder of frequently rising discussions concerning Islam's place in social and political life, among the politicians as well as the intelligentsia<sup>6</sup>.

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<sup>4</sup> Green Money or Islamic Capital was emerged in such environment where money comes from wealthy Islamist businessman and Middle Eastern states (Rubin, 2005).

<sup>5</sup> This part of this report has presented as a research proposal to MBS by the researcher.

<sup>6</sup> For example; while Prime Minister Erdoğan defined secularism as the fundamental and uniting feature of the republic and a guarantee for the freedom of religions and religious belief which is guaranteed by the 1982 Constitution and secularism does not mean atheism, Erdoğan stressed (Kuru, 2009), on 23 April 2006, the 46th anniversary of the establishment of the Turkish National Assembly and National Sovereignty and Children's Feast as was attributed by Mustafa Kemal Atatürk, the chairman of the Parliament, Bülent Arınç, made ambitious claims on secularism in Turkey. He claimed that; "the state is putting restrictions on right of existence and freedom of expression of

What the Turkish politician suggests seems to be impossible as different understandings of secularism, which is a controversial social issue throughout Europe, have always been accepted by various people among the Turkish intellectuals, politicians and the masses (Tanilli, 1995; Berkes, 1964). In Turkey, secularisation dates back to the twilight of the Ottoman Empire in the late 19th century. Although it is clearly considered with modernisation, industrialisation and urbanisation, the definition of secularism is still ambiguous.

In European literature, generally, secularisation is the process whereby religious thinking, practice and institutions lose their social significance in society (Wilson, 1969), but in peripheral countries like Turkey it is defined in a different way due to different historical and religious background, and development experiences. Therefore, as Berkes (1998) argues that to understand the process of secularisation in non-Christian societies one should focus on the domination and characteristics of a religious rule over the social life instead of dealing with definition alone because it sometimes leads to wrong results. This means the word secularism could have several meanings and for this reason an analysis by ignoring the countries background do not give the right results.<sup>7</sup>

Moreover, the nature of Islam, itself, makes it difficult to define the secularism, simply as a means separation of the state and religion. Islam is not only a religion in terms of theological belief and worship but also as a way of life which guides political, economic and social behaviour (Kalantari, 1998). These structural and inner features of Islam have caused some conflicts between secularist and religious circles in Turkey. In the 1980s, the transformation of the state both economically and socially exposed the debates about the state, the constitution and secularism.

For example, after the adoption of New Public Management, which both aims to decrease the regulatory role of government (Ferlie et al, 1996) and increase the economic and political liberalization (Güler, 2005), not only private sector ethos but also some religious based ideas and techniques have started to be applied into the public sector without questions. Hence both the “successful” portrait of private sector such as being more transparent, accountable and effective and the reliability of religion have made both private sector ethos and religion based ideas flawless and inarguably true in the public sector.

Since then the debate between Islamist and secularists has existed not only with regard moral values but also to socio-economic life. As Toprak (1981) claims, the continuous

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some beliefs in public sphere and it is accomplishing this in the name of secularism” (Sabah, 2006). He further argued that nobody was against the notion of secularism; however, differences of interpretation should be removed according to the conditions of the present day (Ibid).

<sup>7</sup> In fact Tarik Zafer Tunaya’s (1960, p. 146) statement makes it clear that it could not have been- and will not ever be- possible to find a single definition of the notion of secularism on which consensus has been reached throughout the world. He argues that secularism, by nature, has a local character which makes its implementation in various countries different according to the circumstances of that particular country.

debate on religion that is taking place in Turkey between secularists and Islamists is not restricted to moral behaviour, but extends to other spheres of life as well. She links this tendency to the very nature of the ideal, the Islamists have:

*“... The Islamic ideal stresses the importance of this-worldly activity for the building of a socio-political order on divine principles. In that respect, Islam has attempted to bridge the distance between the sacred and the profane”*

Moreover, Cizre (1996) and Mardin (1989) point to the same idea with different words; it is clear that, to find a single definition of this “*Islamist Approach*” not only in Turkey but also across the Islamic World is not easy.

However, after the 1980s, both the economic and socio-political dynamics of the transformation have created some common objectives for those religious groups (Gülen Movement (GM), The Ismail Aga Community, Menzil Community) . For instance, to increase those groups’ participation in political and economical life has created new approaches, such as; “*Political Islam/Islamic Activism*”, and “*Liberal Islam*” (in terms of economy) (Demir et al., 2004) which are aiming to shape the society. For instance, according to İlhan Cihanner, his humbling caused the most serious damaged to the GM’s reputation in Turkey, the movement is infiltrated the police and justice system (BBC Radio 4’s podcast: What is Islam’s Gülen movement?, 2011):

*“Anyone who opposes the movement faces obstacles, those who supported promoted. In my opinion the movement is less driven by faith and religion than by political and economic interest. They are not really worried about religion, they want power. And the colour of that power does not matter for them.”*

Conversely, by saying “*We are (Gülen Movement) completely secular on political issues; we believe that if religion involves into politics this corrupts both of them.*” Kerim Balci, the senior journalist and supporter of one of these religious groups (Gülen Movement), also claims that (*Ibid.*):

*“Hizmet (Gülen Movement) does not have any projects about the society, it has projects about individual; they believe that “good individuals create good society” but we do not know what kind of a society those good individuals that will be educated through Hizmet Institutions will create.”*

Briefly, as Kalantari (1998) pointed the powers of persuasion and methods of enforcement of these new approaches come from religious thinking. This has led to

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powerful religious groups controlling the government by successfully lobbying for change in public policies and affecting and shape public opinion (Beriş, 2008). When the republic was founded in 1923, the constituent assembly aimed to create a national bourgeoisie by which the state could control the economy. However, in 1980 this aim changed its direction and created a new type capital which was named “Islamic Capital or Green Capital”.

## **2.2 Contextual Background (Islam and Turkish State, and Education)**

The 1980s were a turning point for Turkey in many ways. The process of transformation gained considerable momentum with the help of external factors. As Demir (*et al.*, 2004) highlighted various Turkish religious groups, with the help of the relative religious freedom guaranteed by the European states, have been organized rapidly among workers there. Those Islamic sects and religious community structures also have an important role in the formation of Green Capital. Intra-community solidarity not only helps to business constituents to share religious beliefs and practices but also develops an environment of cooperation and mutual support. Those groups on the one hand build mosques, Quran Courses, schools and dormitories with the money collected from members or friends, who give to charity out of religious duty, on the other hand prepare a *customer and capital base* for the schools, businesses and enterprises of their members (*Ibid:170.*).

In Turkey, when the idea of New Public Management has become an important tool to transforming public administration and the policy making process, the brand-new *customer and capital base* idea has become important as well. As it stated above although the followers or the supporters of the religious groups underline (BBC Radio 4’s podcast: What is Islam’s Gülen movement?, 2011) that they do not care about political and economic issues more than religion and define themselves as progressive conservative, Ulsever (2001) calls them as a “conservative reformist”. This briefly means that they favoured institutional change because they believe that changing the current system will be to their benefit, while they view loyalty to traditional values as a virtue.

Though Demir (*et al.*, 2004) points out that, since *Cemaatler* come from a social base with almost no experience of intermingling with the state elite, and are too far from politics and bureaucracy to enable them to get credits from the government their ability to transform the government power to monetary and social benefits is quite low,. However, it is obvious that when the Justice and Development Party (AKP) came to power alone, this picture completely changed. As Hendrick (2009) stated, *Cemaatler* (explicitly GM) are purposeful in changing the policies and administration structure to create Islamic Values in political life. For instance GM has close contacts in the ruling Turkish AKP, it owns a major media group and is the driving force behind one of Turkey’s biggest business federations (BBC Radio 4’s podcast: What is Islam’s Gülen movement?, 2011).

Accordingly, AKP Leaders have blurred the distinction between business and politics. In other words the private sector has become powerful to either transform the public sector or to apply the private sector's ethos into the public. Consequently, in Turkey the 30-year-old new public management (NPM) idea which simply based on public-private partnership and support disaggregation and decentralisation (Hood, 1991) was fixed during AKP government. Also Rubin (2005) approached this situation in a different way, by his words "More troubling yet is the pattern of trying Turkish domestic and foreign policy to an influx of what is called Yeşil Sermaye (Green Capital), from wealthy Islamist businessmen and Middle Eastern States."

Consequently, it is possible to see the increasing effect of Green Capital or in other words *Cemaatler* religious groups on the Turkish policy since 1980. Moreover the leadership of AKP has played a significant role in this growth (Rubin, 2005). For instance the religious conservative bourgeoisie, the owner of the green money, which has become more visible in the past two decades, is one of the most important outcomes of social change and social transformation in Turkey (Hendrick, 2009).

That is why there is a little chance for any effort to exclude these social segments with quality education, wealth and skills from government benefits or decision making process in the long term. This is because, this new class with the help of globalization or new public management which allows private sector's interferences in public sphere, demands more freedom with a more comfortable life and a more democratic society, but wants to realize this without losing its religious identity (Demir et al., 2004). Therefore, it is possible to say that those groups want to be an important part of the "political life" which shapes the life cycle.

According to Easton's theory of political life all social systems are composed of the interactions among persons: such interactions form the basic units of these systems (Easton, 1965). What Easton terms the "political system" consists of that set of interactions abstracted from the totality of social behaviour through which values are authoritatively allocated for a society (Howell and Brown, 1983). Moreover, they also highlighted that political interactions and other interactions are highly different from each other. Hence political interactions are predominantly oriented towards authoritative allocations, the latter being seen as the "outputs" of the political system and those outputs customarily take the form of government policies, decisions and implementing actions.

The religious groups' affects or pressure could be an example of how those outputs are shaped by the interest groups. As Kogan (1975) claims the nature of interest groups, the nature of the parliamentary system and of the decision-making process could be either reason or result of those pressure and affects. In the United Kingdom, for instance, the denominational interest groups and particularly the Catholics succeed in getting the dual system accepted. Accordingly, the 1967 Education Act increased grant provision for denominational schools (*Ibid.*).

Also in the US the power of religious groups or in other words the "new social movements" (Lefebvre, 1991) is obvious, for example Mel and Norma Gabler founded Educational Research Analysts in Longview, Texas in 1963 to influence textbook content, particularly the areas of teaching evolution and through their efforts indirectly

influenced the content of textbooks nationwide owing to Texas' state-wide textbook adoption system and its large size in national market (Myres and Cibulka, 2008).

Recent sociological analysis has been focused on authoritarian religious movements and their modes of practical organization and political expression. Accordingly, those movements not only produce new physical spaces, also they either create new spaces or transform existed ones (Bhatt, 1997). Moreover Lefebvre (1991) points out that the movements imagine new spaces. So it is possible to say, the religious groups create their own spaces and grew up as a "group" and then the grown up groups are able to transform or re-shaped the existed structures in favour of themselves.

The creation of the new spaces by religious groups is not a fact not only for the UK and the US; also in Turkey those groups' affects could be seen from their schooling rates and the policies which are changed in favour of them. For example since October 2009, the AKP government has initiated a policy process which aims to remove the attendance of the summer Qur'an Courses. In accordance with the Law no. 4306 which makes eight-year continuous education compulsory for all citizens, only the students, who graduated primary schools' 5th year, are able to join those courses. However, the chairman of the Parliamentary National Education Commission, Mehmet Sağlam suggested that the 8-year continuous education model is outdated and he added to the agenda a "progressive education in 5 +3" model which will allow the opening of 6th, 7th and 8th classes in Islamic divinity students high-schools (Lıcalı, 2009).

The law no. 4306 rarefied the secondary schools including Islamic divinity students' secondary schools. Moreover, by this law Turkey's schooling rate has showed a marked improvement since 1997. The law provides the right to education for 1.7 million children who are not able to continue their education after fifth year. Also, it has decreased the number of female students who are not allowed to continue their education from 400,000 to 190,000 since 1997 (Turkish Statistical Institute (TSI), "Enrolment Sex Ratio by Level of Education and the Educational Year").

However, the religious groups and their leaders perceived that this law is an obstacle for religious schools and despite its remarkable success, the law is intended to be replaced with a new model by AKP (Lıcalı, 2009). Also the main opposition party spokesperson, Kaptan claims that the amount of education investments from the Ministry of National Education's budget has dramatically decreased since 2002. He suggested that government should place greater emphasis on public investments rather than charitable organizations or religious foundations aid (Kaptan, 2009). Hence when those groups' supports increased in public spaces, their interferences to the public services or policies also increases automatically (Demir et al , 2004).

Briefly, as indicated in both contextual and theoretical background of the country, the dilemma between secularism and Islam always has been the most argued topic in governments' agenda during the education policies making. Although governments or in other words pre-1980s' political elites had not had any problem with religious groups and had ignored their demands until 1980s, by their increasing power in economy and politics, it has become really impossible to ignore them. Hence after 1980s, religious groups are one of the ruling powers of the country, or by Meyersson's

(2010:18) words, post-1980s is the time for *the emancipation of the poor and pious*, they have something to say during the policy making process.

## References

1. BBC Radio 4., 2011, *What is Islam's Gülen movement?*, introduced by Edward Stourton, [Online]. Wednesday 25th May. Available from: <http://www.bbc.co.uk/iplayer/console/b011c0ty> [Accessed: 26th May 2011]
2. BERİŞ, H. E., 2008, "Türkiye'de 1980 Sonrası Devlet Sermaye İlişkileri ve „Parçalı Burjuvazinin Oluşumu”, (The State-Capital Relation After 1980 and The Formation of Partial Bourgeoisie in Turkey), *Ekonomik Yaklaşım*, Vol: 19, No: 69, 33-45
3. BERKES N., 1964, *The Development of Secularism in Turkey*, Montreal: Leicester: McGill University Press; Leicester University Press
4. BERKES N., 1998, *The Development of Secularism in with an introduction by Feroz Ahmad*, 2nd ed., London : C. Hurst.
5. BHATT, C. 1997, *Liberation and Purity*, UCL Press, London.
6. CIZRE, Ü.,1996, "Parameters and Strategies of Islam-State Interaction in Republican Turkey", *International Journal of Middle Eastern Studies*, Vol: 28, 231-251
7. DAVISON, A., 1962, *Secularism Revivalism in Turkey: a Hermeneutic Reconsideration*, New Haven & London, Yale University.
8. DEMİR, Ö.... [et. al], 2004, "Anatolian Tigers or Islamic Capital: Prospects and Challenges", *Middle Eastern Studies*, Vol: 40, No:6, November, 166-188
9. EASTON, D., 1965, *A Systems Analysis of Political Life*, John Wiley & Sons, Inc.
10. FERLIE, E., ... [et. al], 1996, *The New Public Management in Action*, Oxford, Oxford University Press.
11. GULER, B. A., 2005, *New Right and The Transformation of the State: Structural Adjustment Programs 1980-1995. (Yeni Sağ ve Devletin Degisimi: Yapısal Uyarlama Reformlari 1980-1995)*, Ankara, Imge Kitabevi
12. HENDRICK J.D., 2009, *Globalization and Marketized Islam in Turkey: The Case of Fethullah Gulen*, PhD Thesis, University of California
13. HOOD, C. ,1991, 'A public management for all seasons? ', *Public Administration*, Vol:69 No:1, pp3-19

14. HOWELL, D. A., Brown, R., 1983, Educational Policy Making : An Analysis, London, Heinemann Educational Books Ltd.
15. KALANTARI, B., 1998, "In search of a public administration paradigm: is there anything to be learned from islamic public administration?", *International Journal of Public Administration*, Vol:21, No: 12, 1821 — 1861
16. KAPTAN, O., 2009, Ministry of National Education Meeting Records, 6th November 2009, [Online] Available from: <http://www.osmankaptan.com/pbkc5.htm>, [Accessed on: 29th May 2009].
17. KOGAN, M., 1975, Educational Policy-Making: A Study of Interests Groups and Parliament, London, George Allen& Unwin Ltd.
18. LAW NO. 4306, [Online] Available from: <http://www.vergiturk.com/4306sk.htm>, [Accessed on: 29th May 2009].
19. LEFEBVRE, H. 1991, The Production of Space, Oxford: Basil Blackwell.
20. LICALI, M., (13th October 2009), 8 Yıllık Eğitime AKP Darbesi. Cumhuriyet. [Online] Available from: <http://www.cev.org.tr/Default.aspx?pageID=18&nID=1804>, [Accessed on: 29th May 2009].
21. MARDIN, S., 1989, Religion and Social Change in Modern Turkey: The Case of Bediuzzaman Said Nursi, Albany, State University of New York Press.
22. MEYERSSON, E., 2010, Islamic Rule and the Emancipation of the Poor and Pious, LSE, and SITE, SSE Working papers, [Online] [Accessed 29<sup>th</sup> March 2011] Available from: <http://www2.lse.ac.uk/government/research/resgroups/PSPE/pdf/Meyersson.pdf>
23. MYERS N. and Cibulka JG, 2008, "Fearful reformers: the institutionalization of the Christian Right in American Politics", *Educational Policy*, Vol 22, Iss 1,155-180
24. RUBIN, M., 2005, "Green Money, Islamist Politics in Turkey", *Middle East Quarterly*, Winter- 2005, 13-23
25. TANILLI, S., 1995, *Could Islam be an Answer for the Modern Age? (İslam Çağımıza Yanıt Verebilir mi?)*, 6th Edition, Istanbul, Cem Yayınevi.
26. TAPPER, R. [ed.],1991, *Islam in Modern Turkey: Religion, Politics and Literature in a Secular State*, London, I. B. Tauris & Co Ltd.
27. TOPRAK, B., 1981, *Islam and Political Development in Turkey*, The Netherlands, Leiden: E.J.Brill, TSI, Enrolment Sex Ratio by Level of Education and the Educational Year, [Online] Available from:

[http://www.turkstat.gov.tr/VeriBilgi.do?tb\\_id=14&ust\\_id=5](http://www.turkstat.gov.tr/VeriBilgi.do?tb_id=14&ust_id=5) , [Accessed on: 29th May 2009].

28. TUNAYA, T. Z., 1960, *The Westernization Movements in Turkish Political Life* (Türkiye'nin Siyasi Hayatında Batılılaşma Hareketleri) İstanbul, Arba Yayınları.
29. ÜLSEVER, C., 2001, "Muhafazakar Değişimciler ve Demokratik İslam" (Conservative Advocates for Change and Democratic Islam) Görüş, Nov. 2001, 55-9
30. WILSON, B., 1969, *Religion in Secular Society*, Penguin Books, Harmondsworth, Mdx.: Penguin Books.
31. YAVUZ, H., 2000, "Cleansing Islam from the Public Sphere", *Journal of International Affairs*, Fall 2000, 54, No:1

# Testing Conditionality Arguments in the Case of Turkish Political Reforms since 1999

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There is a common tendency to see EU-Turkey relationships from an external democracy promotion framework. From this perspective, academics focus on the conditional nature of the accession negotiations. As a result, democratic reforms made by Turkey are explained with a process in which Turkey experiences a democratic transformation forced by EU-Turkey relations through political conditionality strategy. This paper aims to test how accurate these arguments are. For this aim, depending on theories on conditionality, under what conditions this strategy might be expected to work will be evaluated. Regarding this, it will be suggested that a credible conditionality strategy that offers a clear membership prospect and favourable domestic conditions are necessary for the strategy to work. Based on this evaluation, two periods Turkey has experienced are believed to represent different levels of external pressure depending on the effectiveness of conditionality strategy. The first period covers the years between 1999, when Turkey was given a candidacy status, and 2005, when the accession negotiations began. The second will cover the period since 2005. Evaluating the two periods in the light of the prerequisites suggested by conditionality theories, it will be suggested that the second period represents a significantly lower level of external pressure. Therefore, quality and quantity of the reforms made in two periods are supposed to differ significantly. This paper will argue that a comparison of the two periods provides two important findings. Firstly, in terms of the quantity of political reforms actually made, there is a considerable difference between the two periods, which may be taken to support conditionality arguments. Secondly, however, the quality of reforms made such as in the areas of civil-military relations, freedom of expression and reform attempts regarding minority rights to solve Kurdish issue during the latter period can be claimed to be far from insignificant. Therefore, even if these cases do not completely invalidate conditionality arguments, they raise important questions on their explanatory power. Hence, it can be claimed that conditionality arguments cannot fully explain recent reform process in Turkey. Thus, alternative approaches to rationalist perspective based on material bargaining deserve more attention than they receive currently in studies of Europeanisation of candidate countries.

**Keywords:** Democratisation, Europeanisation, Conditionality, Turkey, EU.

## 1. Introduction

Turkey has recently achieved significant political reforms that have been widely acknowledged. These domestic changes have been considered as a part of Turkey's Europeanisation process. Although there are different perspectives to Europeanisation such as bottom-up or top-down (Börzel and Risse, 2000; Bulmer, 2006), when it comes to the case of candidate countries, there is a common tendency to see it as a one way process in which the candidates are shaped by the EU as a result of the conditional character of the game which puts the EU in the role of a referee as well as one of the players (Grabbe, 1999, p.6). In order to emphasize this one way character, Wallace calls the process as EU-isation EU (2000 cited in Haughton, 2007, p.234).

In this regard, the EU is seen as a normative power exporting its norms to non-member states through political conditionality strategy (Manners, 2002, pp.244-5; Diez, 2005, P.616). As a result, political reforms made by candidate countries are widely seen to be realised as a result of this conditionality strategy (e.g. Grabbe, 2002a; Aydın and Keyman, 2004; Muftuler-Bac, 2005). From this perspective although other mechanisms such as socialisation are recognised, their roles are not seen as significant as conditionality strategy since it is the only mechanism that proved effective (Schimmelfennig, 2008, p.920). Within this mechanism, the EU demands adaptation of its norms and rules from target states and in return, offers them material benefits like economic, technical assistance and ultimately membership (Kelley, 2004a, p.30). The compliance will be rewarded and recalcitrance will be punished (Schimmelfennig et al, 2003, p.496). However, the strategy mainly works through rewards rather than punishment (Grabbe, 2002a, p.250). The candidates in response weigh the costs of adaptation and expected benefits from membership (Kelley, 2004a, p.38). Thus when the expected benefits are higher than the costs, compliance can be expected (Schimmelfennig, 2008, pp.919-20).

Although the conditionality strategy proved successful in many examples, it is also widely accepted that although the same pressures are employed on all the candidates, their responses to European pressure have varied significantly and there have always been reluctant democratizers (Checkel, 1999, p.85; Emerson and Noutcheva, 2005, p.4; Kubicek, 2003, p.3). Search for possible answers to this variation led academics to question under what conditions the conditionality strategy can be expected to work. The next part of this paper will outline the conditions for an effective political conditionality strategy in order to test them in the suggested two periods.

## 2. Conditions for an Effective Conditionality Strategy

In search of solving the puzzle posed by varied responses by candidate governments to the same external pressure applied by the EU through conditionality strategy, theories have been constructed to explain under what conditions conditionality strategy can be effective. According to these theories, three conditions for conditionality to be

successful have been proposed: Sizeable rewards, credibility and favorable domestic conditions. Taking the cost-benefit calculations of target governments as a base, the first prerequisite for an effective conditionality strategy is suggested as the presence of sizable carrots as prizes of compliance. Based on the assumption that democratic reforms demanded by the EU mean high political costs for governments of the candidates (Schimmelfennig and Scholtz, 2008, p.190), it is suggested that such high costs can only be balanced by membership prospective as the ultimate incentive (Kubicek 2003, p.17).

A second condition for an effective conditionality is suggested to be “credibility” in support of the first prerequisite (Haughton, 2007, p.244). It is proposed that this depends on three qualities. First of all, there must be a clear link between membership and conditions (Schimmelfennig, 2008, p.920; Schimmelfennig and Scholtz, 2008, p.191). Secondly, it is claimed that for conditionality to be credible, fulfillment of the conditions must be judged according to objective criteria (Schimmelfennig et.al, 2003, p.499). In order to support this objectivity it is also suggested that demands of the EU should also be clearly defined, which can be suggested as a third requisite for a credible conditionality (Haughton, 2007, p.244).

In addition to credibility and sizeable rewards, a final condition suggested for an effective EU conditionality is suggested that domestic conditions should also be favorable (Schimmelfennig, 2008, p.921). From this perspective, favorable conditions are understood as the costs being lower than the expected benefits of adaptation in the eyes of governing elites (Schimmelfennig et.al, 2003, p.515). Thus, when the costs are seen too high as in the most commonly given example of Cyprus, even membership incentive can fail (Schimmelfennig, 2008, pp.919-20).

### **3. Testing the Hypotheses on Conditionality Strategy in the Two Periods of Turkey’s Journey towards Accession**

In this part of the paper, the hypotheses made by conditionality theorists outlined before will be tested in two periods. The first period starts with Turkey’s acceptance as a candidate in 1999 and ends with the beginning of accession negotiations in 2005. It is widely accepted that the first period provides one of the best examples of how effective conditionality can be (Schimmelfennig, 2007, p.130). It is also commonly argued that providing Turkey with a clear membership prospect at Helsinki Summit spurred Turkey to realize long due reforms demanded by the EU. Regarding this many examples of reforms were suggested as results of conditionality strategy such as Human right reforms (Schimmelfennig et.al, 2003, p.509), abolition of death penalty (Diez, 2005, p.618) and rapid reform movements under Justice and Development Party (Hughes, 2004, p.3). Considering the high effectiveness of conditionality strategy these high cost reforms made by Turkey were not seen surprising from rationalist perspectives. Although it was pointed out that Turkey needs to do more reforms in political area, the progress made by Turkey was seen enough by the EU and accession negotiations were started.

The beginning of the second period meant a lower level of external pressure since the EU's decision to start the negotiations implicitly meant that Turkey met the political criteria. Therefore, although some political reform demands still existed, the link between political criteria and membership was less obvious meaning a less effective conditionality strategy. Another important factor weakening the link between membership and conditions is as Aydın and Esen suggest, the fact that the membership prospect became more blurred after 2005 as a result of the emphasis on the open endedness of the negotiations (2007, p.132). This emphasis was made with the request of some member states such as Germany, France and Austria as a result of their opposition to full membership of Turkey as they later announced on various occasions (see Gunay, 2007 and Tocci 2007) . Moreover, proposals by some of these countries to offer Turkey an alternative privileged partnership and their decisions to take the decision to hold a referendum regarding a possible accession of Turkey emerge as factors that shade doubts over membership prospect of Turkey. Thus, as it is widely acknowledged, objections to Turkey's possible membership emerge as a factor that diminishes the credibility of conditionality strategy with Turkey (e.g. Schimmelfennig, 2008, p.919; Tocci, 2007, pp.30-31).

In addition to the broken link between political conditions and membership, a second factor reducing the effectiveness of conditionality strategy is the subjectivity of these criteria. As Grabbe emphasizes, Copenhagen criteria are defined very broadly, thus open to different interpretations. As a result, what actions are necessary to comply with them change according to decisions taken in every EU summit. Therefore, this makes membership a moving target for countries (Grabbe, 2002a, p.251). Moreover, when the EU granted Turkey a candidacy status in 2004, it was suggested that Turkey had a lot to do to fulfill the political conditions. However, what steps should be taken to do so were not clarified and remained ambiguous. Consequently, this ambiguity can be suggested to cause member countries to focus on their own particular interests during accession negotiations. In Turkish case, this led to pressures within the EU to connect Turkey's possible membership with political issues such as Armenian, Cyprus or Aegean problems (Tocci, 2007, pp.12-14). Thus, as Aydın and Esen propose, it is not clear whether conditions will only be restricted with technical conditions or they will include such political conditions (2007, p.132). Hence, this haziness emerges as a second factor that reduces the credibility of the EU's conditionality strategy Turkish Case.

Another obstacle derives from the fact that Copenhagen criteria include conditions that are out of candidates' power, such as absorption capacity of the Union. Due to Turkey's characteristics such as large population, low income level and high unemployment, worries are voiced about a potential Turkish membership (See Dixon, 2010). Thus, Turkish membership arises as a difficult enlargement decision for the EU in terms of its absorption capacity, which increases the doubts over Turkey's membership prospect.

A final factor affecting the credibility of conditionality can be suggested as prejudices both within Turkey and the EU member states. On the one hand, it is suggested that Turkey is being 'other'ed by the members seeing it as an Islamic country. Islamic population of Turkey is often highlighted during public discussions in some member

states especially with large Turkish communities such as Germany, Austria, Denmark or France (Gunay, 2007, pp.49-51; Tocci, 2007, pp.26-28). As a result, as Jung claims, Turkey is being excluded from European map in minds of most Europeans (Jung, 2007, p.74). On the other hand, there are also prejudices in Turkish public. One of the most striking ones can be proposed as the belief that the EU does not treat Turkey as the other candidates. Actions taken by the EU supported this argument from time to time, too. For example, the EU's decision to accept Greek Cypriot side as Cyprus even though they rejected and Turkish side accepted the Annan plan suggested by the UN was perceived as a proof of the EU's double standards (Ananicz, 2007, pp.36-37). Moreover, demands on topics such as minority rights and Kurdish issue empower the euro-skeptic arguments that voice worries about Turkey's national integrity and the belief that Turkey will never be accepted as a member (Ananicz, 2007, p.35; Onis, 2004, p.485). Therefore, it can be claimed that prejudices within both sides emerge as another important factor reducing the credibility of conditionality strategy.

In the light of these conditions it can be suggest that this period represents a significantly lower level of external pressure through conditionality strategy. However, in this period, Turkey's will to make further political reforms remained comparable in terms of quality to the first period. One example of such reforms is made in the area of freedom of expression. The highly criticised article 301 of the criminal code that requires punishment of insults to Turkishness was changed in 2008. Although the change cannot be considered completely satisfactory, the importance of the change can only be appreciated considering the fact that change of the article had remained a taboo in Turkish Politics.

Another example of such high cost reforms can be suggested as the change of the article 250 of the Turkish Criminal Judgmental Code which allows military personnel to be judged by civilian courts regarding with their acts involving civilians in 2009. The change also prohibited the judgment of civilians in military courts. Although the change was cancelled by the constitutional court, it was later realised through the constitutional change in 2010. The importance of such a change can be acknowledged considering the traditional guardianship role of the Army (See Heper and Guney, 1996).

Along with these changes an important attempt made by the government to cede further rights to minorities in 2010. Although a draft reform proposal was not proposed, it was suggested by the government that further democratic reforms necessary to solve the Kurdish issue should be discussed by all political parties and civil society. However, Political parties could not reach a concensus as a result of suspicions that such changes could cause disintegration of Turkish society and eventually Turkey. Governmet also stepped back from this 'democratic opening project' with the fear of loosing votes in the upcoming elections in 2011. However, although it failed, the importance of the attempt itself has to be appreciated as it was in an area traditionally considered as one of the most costly reform topics under such low level of external pressure from the EU.

In summary, after comparing the two periods it can be claimed that the period after 2005 represents a lower level of external pressure considering a significantly less

effective conditionality strategy. As a result, the parallel structure between the quantity of reforms and the level of external pressure is not surprising from a conditionality perspective. However, the same parallel pattern cannot be proposed in terms of the quality of the reforms both realised and attempted.

## 4. Conclusion

This paper aimed at testing the arguments that suggest conditionality as the main driving force behind the recent reform process Turkey have experienced since 1999. For this aim, depending on theories of conditionality strategy, three conditions have been suggested for the strategy to be effective: offer of sizable incentives such as a clear membership prospect, credible conditions clearly linked with the prizes and favourable domestic environment. In the light of these conditions, it has been suggested that the two chosen periods represent different levels of external pressure by the EU as the effectiveness of the strategy is significantly lower for the period since 2005. Having considered the reforms made in the two periods, two main conclusions have been drawn. Firstly, it can be suggested that there is a parallel structure between the quantity and the level of external pressure in the two periods as expected from the conditionality perspective. Secondly, however, reforms made after 2005 are far from being insignificant in terms of quality. Hence, it can be claimed that arguments that suggest conditionality as the main driving force behind these political reforms are unsatisfactory by themselves in explaining the recent reform process of Turkey. Therefore, it can be suggested that alternative approaches should be paid more attention in the study of Europeanisation of candidate states.

## References

1. Aydin S. And Keyman, F. (2004) 'European Integration and the Transformation of Turkish Democracy', *CEPS EU-Turkey Working Papers*, No.2.
2. Börzel, T. A. And Risse, T. (2000) When Europe Hits Home: Europeanization and Domestic Change. *European Integration Online Papers*. [online] Vol. 4, No:15. Available from: <http://eiop.or.at/eiop/texte/2000-015a.htm>. [Accessed 20th June 2011].
3. Bulmer S. (2006) 'Theorizing Europeanization' in: Graziano, Paolo and Maarten Vink (eds.) 2006. *Europeanization: New Research Agendas*. Basingstoke, Palgrave Macmillan, pp.46-58.
4. Checkel, J.T. (1999) 'Norms, Institutions, and National Identity in Contemporary Europe', *International Studies Quarterly*, Vol. 43, No. 1, pp.83-114.
5. Diez, T. (2005) 'Constructing the Self and Changing Others: Reconsidering 'Normative Power Europe'', *Millennium Journal of International Studies*, 33, pp.613-36.

6. Dixon, J. C. (2010) 'Opposition to Enlargement as a Symbolic Defense of Group Position: Multilevel Analyses of Attitudes toward Candidates' Entries in the EU-25, *The British Journal of Sociology*, 33, 1, pp.127-54.
7. Emerson, M. and Noutcheva, G. (2005) 'Europeanisation as a Gravity Model of Democratisation', *Herald of Europe*, 2, pp.1-33.
8. Grabbe, H. (1999) 'A Partnership for Accession? The Implications of EU Conditionality for the Central and East European Applicants', Robert Schuman Centre Working Paper, 12.
9. Grabbe, H. (2002a) 'European Union Conditionality and the "Acquis Communautaire"',
10. *International Political Science Review*, vol.23, no.3, pp.249-68.
11. Grabbe, H. (2002b) 'Europeanisation Goes East: Power and Uncertainty in the EU Accession Process', Paper for the ECPR Joint Sessions of Workshops, Turin, 22-27 March 2002.
12. Günay, C. (2007) 'Conditionality, Impact and Prejudice in EU-Turkey Relations: A View from Austria, in: Tocci, N. (ed.) *Conditionality, Impact And Prejudice In EU-Turkey Relations*, IAI-TEPAV Report, Roma, pp.46-57.
13. Haughton, T. (2007) 'When Does the EU Make a Difference? Conditionality and the Accession Process in Central and Eastern Europe, *Political Studies Review*, vol.5, pp.233-46.
14. Heper and Guney (1996) 'The Military and Democracy in the Third Turkish Republic', *Armed Forces & Society*, 22, pp.619-42.
15. Jung, D. (2007) 'Conditionality, Impact and Prejudice In EU-Turkey Relations: A 'Northern' View', in: Tocci, N. (ed.) *Conditionality, Impact And Prejudice In EU-Turkey Relations*, IAI-TEPAV Report, Roma, pp.66-74.
16. Kelley, J. (2004a) *Ethnic Politics in Europe: The Power of Norms and Incentives*, Princeton: Princeton University Press.
17. Kelley, J. (2004b), 'International Actors on the Domestic Scene: Membership Conditionality and Socialization by International Institutions', *International Organization*, Vol.58, No.3, pp.425-57.
18. Kubicek, P. (2003) 'International Norms, the European Union, and Democratization: Tentative Theory and Evidence' in: Kubicek (ed.) *The European Union and Democratization*, London, Routledge, pp.1-29.
19. Manners, I. (2002) 'Normative Power Europe: A Contradiction in Terms?', *Journal of Common Market Studies*, Vol.40, No.2, pp.235-58.

20. Muftuler-Bac, M. (2005) 'Turkey's Political Reforms and the Impact of the European Union', *South European Society&Politics*, Vol.10, No.1, pp.16-30.
21. Öniş, Z. (2004) 'Diverse but Converging Paths to European Union Membership: Poland and Turkey in Comparative Perspective', *East European Politics and Societies*, 18, pp.481-512.
22. Schimmelfennig, F. et.al. (2003) 'Costs, Commitment and Compliance: The Impact of EU Democratic Conditionality on Latvia, Slovakia and Turkey', *Journal of Common Market Studies*, Vol.41, No.3, pp.495-518.
23. Schimmelfennig, F. (2007) 'European Regional Organizations, Political Conditionality, and Democratic Transformation in Eastern Europe', *East European Politics and Societies*, 21, pp.126-41.
24. Schimmelfennig, F. (2008) 'EU Political Accession Conditionality after the 2004 Enlargement: Consistency and Effectiveness', *Journal of European Public Policy*, 15, 6, pp.918-37.
25. Schimmelfennig, F. and Scholtz, H. (2008) 'EU Democracy Promotion in the European Neighbourhood: Political Conditionality, Economic Development and Transnational Exchange', *European Union Politics*, 9, pp.187-215.
26. Tocci, N. (2007) 'Unpacking European Discourses: Conditionality, Impact and Prejudice in EU-Turkey Relations', in: Tocci, N. (ed.) *Conditionality, Impact and Prejudice in EU-Turkey Relations*, IAI-TEPAV Report, Roma, pp.7-32.

# Interdiscourse Communication and Identity Construction in Online Social Networks

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## Abstract

In this paper we argue that in cyberspace, online social networks contain users who belong to different cultures and subcultures and identity is constructed in a multicultural medium through intercultural communication. Thus, we observe and analyse the social and linguistic features of online interactions. We choose foreign students who study in Romania, learn Romanian and often use Romanian as a contact language among themselves and with native speakers of Romanian.

In online social networks, which are par excellence postmodern, cultural identities are expressed in a frame of globalization. Nevertheless, we argue that they are not mere representations of globalization, but proofs of glocalizations (globalization and localization at the same time). That is to say, there are signs of globalization in their discourse, but they all preserve their idiosyncrasy.

The research encounters limitations because users say only what they want in social networks and the information is filtered. However, we are not interested in the truth value of the users' discourse, but in the specific aspects of their social and linguistic behaviour.

Cross-cultural online interaction requires using a common language that is, in many cases, non-native and sometimes, limited. At times, in order to improve communication, users even mix languages or use automatic translations. Therefore, the originality of this paper consists in arguing that the result is a hybrid, but coherent discourse which sends across messages that reveal cultural identities.

**Key-words:** cyberspace, interdiscourse, cultural identity, users

## 1. Introduction

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This paper illustrates different ways of expressing oneself using Romanian as a contact language on the Internet. The differences emerge as a consequence of the users' belonging to distinct cultural backgrounds. We focus on Erasmus students who speak Romanian as a foreign language.

The first part defines the concept of multicultural interaction. Consequently, we provide theoretical aspects with regards to culture, youth subculture and cultural identity.

In the second part we present the concept of interdiscourse communication. We highlight the social and linguistic features of online interactions and we argue that users are involved in a glocal talk.

In the third part we argue that the discourse encountered in online interaction is a hybrid discourse which brings to light cultural identities. We support this statement with examples taken from online discourses ([www.facebook.com](http://www.facebook.com)) of foreign students non-native speakers of Romanian.

## **2. Multicultural Interaction**

Multiculturalism is a condition and, at the same time, a result of interacting in the global and digital medium of the Internet. Thus, online social networks are spaces where users from different cultural background interact with one another: they post texts and others respond to it in the different ways (they debate about different topics; they even have polemical discussion; they add further details on each other's ideas etc.). That is to say, they are all part of a multicultural community in which various types of cultures/subcultures are intermingled.

### **2.1 Youth Subculture**

In opposition to culture which 'consists of patterns, explicit and implicit symbols, constituting and distinctive achievements of human groups, including their embodiments in artifacts; the essential core of culture consists of traditional (i.e. historically derived and selected) ideas and especially their attached values [...] (Brake, 1995: 2), subculture is 'a subordinate construct that asserts its existence mainly through negotiating /resisting /opposing mainstream ideologies, re-appropriating public space, and reassigning meanings to conventional objects' (Cotrău, 2007: 152).

We can encounter subcultures like: youth subcultures, religious subcultures, gender identity-based subcultures, sexuality identity-based subcultures, gothic subcultures, hip hop subcultures, high school subcultures, hippies subcultures etc. Out of this great variety, we focus on youth subculture because youngsters use online social networks more than adults and they are very creative. Moreover, we focus on students because we want to note how young foreign people relate to Romanian.

### **2.2 Cultural Identity**

Cultural identity reveals the users' belonging to a community, and also to a culture/subculture. What's more, cultural identity is expressed through language. Hence, 'the meaning of utterances comes not only from the words spoken but also from culturally agreed-upon conventions for how those words are used and interpreted as well as from how they have been used in the past within a given culture' (Tannen, 2006: 343). Moreover, scholars have even suggested 'that language and culture are better thought as a single entity: languaculture' (Tannen, 2006: 343). It is exactly this view that suits our purpose because cultural identity on social networks represents an echo of different *languacultures*.

The users under focus use Romanian as a contact language and Romanian becomes a bridge language (*lingua franca*) at a micro-level. The very use of this language represents a case of inter-cultural communication because 'people transfer into their *lingua franca* the pragmatic and discourse patterns of their own languaculture' (Clyne, 2004: 29).

### **3. Interdiscourse Communication**

When foreign students non-native speakers of Romanian interact in Romanian with other students, the use of Romanian 'carries with it an almost inevitable load of interdiscourse or intercultural communication' (Scollon and Scollon, 2001: 4). Their discourses contain interdiscourses also because 'all communication is to some extent interdiscourse communication' (Scollon and Scollon, 2001: 4). That is to say, every discourse has an interactive dimension: it involves a reaction to other discourses.

All discourses mutually define one another, 'mais qu'il s'agisse d'interactions entre particules ou d'interactions entre sujets, on a toujours affaire à un système d'influences mutuelles, ou bien encore à une action conjointe'<sup>9</sup> (Kerbrat-Orecchioni, 2005: 9).

#### **3.1 Social and Linguistic Features of Online Interaction**

The social and linguistic behaviours of each person depend on the place and time of interaction: the discourse is constructed according to a specific context (in our case the Internet and the belonging to the youth subculture). This discourse is recognized and receives meaning according to the specific behaviour involved. Moreover, 'what a person says or does is always a product not just of the Discourse he or she is in at the time, but also of the other Discourses that person is a member of' (Gee, 1996: 167).

Being a member of different groups means also creating several discourses: 'one Discourse is not just influencing another, I am actually trying to be in two or more Discourses at the same time, as if I tried to play two or more roles in a play simultaneously' (Gee, 1996: 167).

For example, in online social networks, foreign students often use Romanian with Romanian speakers (native or non-native) even if they could also use English instead:

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<sup>9</sup> If we deal with interaction among particles or with interaction among subjects, in both cases we deal with a system of mutual influences or even with a joint action (authors' translation)

- ✓ they post statuses in Romanian despite the fact that their list of friends consists more of non-speakers of Romanian. In this way, they select their interlocutors. Of course, when they post statuses in their native tongues, they operate another selection;
- ✓ they use comments in Romanian etc.

### 3.2 Users and Glocal Talk

In the digital medium, which is par excellence postmodern, cultural identities are expressed in a frame of globalization. Nevertheless, we argue that online social networks are not mere representations of globalization, but proofs of glocalization. We witness ‘a process of adopting specific elements from other cultures without losing the original identity, and blending the ideas, brands, and practices from different cultures in such a balanced way that one is not overwhelmed by the other’ (He, 2007: 8). Hence, we argue that users participate to a glocal talk in which there are signs of globalization, but in which all idiosyncrasies are preserved.

## 4. Hybrid Discourse

The users’ glocal talk constructs cultural identities within online social networks. There are several aspects that can be identified. We observe these features with examples taken from users’ hybrid discourses created on www.facebook.com

### 4.1 Foreign Students Non-native Speakers of Romanian

Foreign students non-native speakers of Romanian construct a glocal talk which is characterized by:

- ✓ machine translations:

Eg.1: a conversation between a Romanian student who has a Korean username and a Japanese student. The Romanian student starts the conversation in Romanian and English. The Japanese student answers in Romanian. The Romanian student uses machine translation when she writes in Japanese, asking for correction:

□□□□: *blue guy: huh?? =)) :)) :)) te-ai speriat?? :P* (Did it scare you?)

**Hiroko O.**: *Nu e frumos deloc..... □ : D*(It is not nice at all)

□□□□: *Dia□□□□□□□□□□□□□□ :)) corect??*

(Dia is still hungry) (correct?)

**Hiroko O.**: *Corect: ) perfect : )* □□□□□□□□□□□□□□

(correct :) perfect) (I am still hungry)

□□□□: □□□ - ea ?? :P kanojo wa :) adica DIA :))

(she = she??) (she that is to say Dia)

□□□□: vreau sa invat japoneza!! >\_< (I want to learn Japanese)

**Hiroko O.:** da,da!! □□□□□□□□□□□□□□□□ : D Ai talent!!

(yes,yes!! She is still hungry) (You are talented)

□□□□: mai invata-ma!! :) (teach me more)

✓ code switching:

Eg. 2: a line written by a German student from a conversation with a Greek student (switch between Romanian and English):

*you* **Mara:** diana vine dupa masa?? aaaaaa...!!!!ok, anyway somn usor!! I'll call : D))

(is diana coming in the afternoon??) (sleep tight)

Eg. 3: two Japanese students: switch between Italian and Romanian:

**Maia Takahashi:** si si bene multumesc!(yes, yes ok thank you)

**Hiroko O.:** Bine, vediamo ^^ (ok, we will see)

Eg. 4: a Korean student and a Japanese student. The Korean student switches to English when she does not know a Romanian word:

**Hana:** Ok.:))) Sa te astept la " doorman" la ora 7.30 ( nu stiu cum sa zi).:D

*how to* (I will wait for you at the 'doorman' at 7:30 (I don't know call it in Romanian)

**Hiroko O.:** Ok : D) Este portar^^ ok,ok. pe maine!!! Somn usor!

(It is called 'portar' ok, ok. See you tomorrow!!! Sleep tight!)

Eg. 5: A Japanese student's status written in English. The ending is in Japanese:

*Hiroyuki: in this weekend... I tried installing(doing update) a new video card in order to play'minecraft'... in vain. I did my best, in vain. I realized that my computer is not suitable for 'minecraft'... no possibility.*

□□□□□□□□□□□□□□□□

- ✓ mixture of languages from one post/comment/reply to another:
  - Eg. 6: two Bulgarian students. The first writes in English, the second answers in Romanian:
 

*Milen: The Best of The Best Manson Is It!*  
*Агпа*, exact... (exactly)
  - Eg. 7: two Japanese students. The first writes in English, the second answers in Romanian:
 

*Arisa Hashimoto: Okay. Are you coming on your own?*  
*Hiroyuki: da. (yes)*
  - Eg. 8: A Bulgarian and a Greek student talking about a song. The Bulgarian writes in Bulgarian and the Greek replies in Romanian:
 

*Ico: nenormalna pesni* (crazy song)  
*Aspa: asta a fost piesa care ai vrut sa gasesti?*  
(is this the song you wanted to find?)
- ✓ words and structures which are grammatically correct but native users would never use them in informal contexts: *in van* (in vain), *neosebit* (archaism, it means *special*. The nowadays form is *deosebit*);
- ✓ words and structures from a foreign language but to which they add Romanian endings/morphemes: *ne reposam* (the student uses the French verb *se reposer*, the Romanian verb is *ne odihnim*: we are resting), a *fermat masina* (from the French verb *fermer*, in Romanian: *a inchis masina* – he closed the car), *trebuie sa bevi* (from the Italian verb *bevi*, in Romanian: *trebuie sa bei* – you have to drink), *eu pens ca* (from the Italian verb *pense*, in Romanian *eu cred ca* – I believe that);
- ✓ calques: *nu pot sa astept week-endul asta* (translation word by word of the English expression *I can't wait this week-end*), *medianopte* (it is the equivalent of midnight but the correct form is *miazanoapte*. It was used by a Russian user. There is such a form in Spanish: *medianoche*); *i go to sleep, can't see in front of me* (in English, *can't see in front of me* is not an expression, in Romanian there is an expression similar to this one);
- ✓ incorrect structures: *sa devii in dragoste* (“you will become in love”). The correct form is: *o sa te indragostesti* which is the equivalent of *you will fall in love*; *l-a invitat la el cand a stiut ca nu are loc de dormit* – he invited him over when he knew that he didn't have where to sleep. The verb *to know* (*a sti*) is not used by a native speaker in this context, although in French and English this is possible. In Romanian, it should be replaced by *a aflat* (to find out).  
There are also mistakes in their discourse, but this is normal because they are in the process of learning Romanian. The mistakes do not affect the message transmitted and the discourse is coherent. Hence, we didn't take them into account. Moreover, even if they have been learning Romanian only for a few months, they understand the figurative use of language or things related to Romanian culture:
- ✓ Some of them post jokes in Romanian on their facebook profiles:
  - Eg. 9: *Ico: De ce blondele se plimba cand se spala pe par?*  
(Why do blondes walk when they wash their hair?)

*Pentru ca pe sampon scrie "Wash and Go"!*

(Because on the shampoo it is written 'Wash and Go')

Comments on this post:

**Aspa** (blonde Greek student): *ce rasism!!!* >.<

(what a racism!!!)

**Tatiana P.:** *hahahaha* :D

**Bobo B.:** (=) *tare asta* (good one)

**Bobo B.:** *O blonda la cina impreuna cu sotul: Auzi iubituile, azi mi-a spus un coleg la serviciu un banc cu blonde ... am ras de era sa cad din pat.* (A blonde having dinner with her husband: Darling, today at the office a colleague told me a joke with blondes... I laughed so hard that I was about to fall off the bed).

✓ Some of them post links to Romanian songs:

Eg. 10: The Romanian song *Tata* (Father)

**Bobo B.:** (=) *ce melancholic esti* : ))) (You are so melancholic)

**Ico:** *mi-e dor de tata meu ce pot sa fac am vazud piesa in profilul lui Csabi si direct am pus si eu aici!* (I miss my father, what can I do? I saw this song on Csabi's profile and I also posted it here).

✓ Some students use structures which belong to Romanian dialects: *no bine* (a structure formed by a filler of Hungarian origin used only in Transylvania: *no* and an adverb *bine* (good) – this would be the equivalent of *ok*); *e faza ca imi trebuie nota* (the thing is that ...)

## 5. Conclusions

Online social networks are virtual spaces where users reveal cultural identities through a constant intercultural interaction. They contain multiple cultural identities expressed through language.

The foreign students non-native speakers of Romanian are part of a global group, but they all preserve their specificity.

## References

1. Brake, Michael (1995), *Comparative Youth Culture. The Sociology of Youth Cultures and Youth Subcultures in America, Britain and Canada*, London and New York: Routledge.
2. Clyne, Michael "Towards an Agenda for Developing Multilingual Communication with a Community Base", in Juliane House and Jochen Rehbein (2004), *Multilingual Communication*, Amsterdam: John Benjamin's Publishing Co.
3. Cotrău, Diana (2007), "The Internet: The New Breeding Ground of Subcultures", in *Studia Universitatis Babeş-Bolyai, Philologia*, LII, 3.
4. Gee, James Paul (1996), *Social Linguistics and Literacies. Ideology in Discourse*, 2<sup>nd</sup> edition, London: Taylor and Francis Ltd.

5. He, Shaoyi (2007), "Internet Multilinguality: Challenges, Dimensions, and Recommendations", in St. Amant De Kirk, *Linguistic and Cultural Online Communication Issues in the Global Age*, London: Information Science Reference.
6. Kerbrat-Orecchioni, Catherine (2005), *Le discours en interaction*, Armand Colin.
7. Scollon, Ron and Scollon, Suzanne Wong (2001), *Intercultural Communication. A Discourse Approach*, 2<sup>nd</sup> edition, Oxford: Blackwell Publishers Ltd..
8. Tannen, Deborah (2006), "Language and Culture" in *An Introduction to Language and Linguistics*, Ralph W. Fasold and Jeff Connor-Linton, New York: Cambridge University Press.
9. Corpus
10. [www.facebook.com](http://www.facebook.com), May-June 2011.

# **Kosovo toward an emerging norm of anticipatory humanitarian intervention**

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## **1. Introduction**

When NATO took armed action without an explicit mandate from UN Security Council it entered into the gap between state sovereignty and that of responsibility to protect human rights. NATO's member states asserted that Kosovo conflict represented a danger for security region in South East Europe and a humanitarian situation in order to prevent killing more Albanians. On the other side, states like China and Russia argued that NATO's action represented a violation of a state sovereignty. The result was such a controversy that continuous even today. These debates raised important issues about how intervention should be and most important a humanitarian intervention.

## **2. Methodology**

This paper analyzes NATO's intervention in Kosovo through the just war theory. In order to do that, I will focus my research on analyze the main documents related to Kosovo war and also the political discourse on that matter. For doing so, I will start this research with the analysis of nonintervention doctrine, NATO's action through the just war theory and the legality and legitimacy of intervention, and the R2P and anticipatory self-defense.

The main hypothesis of this paper is that Kosovo's intervention creates an anticipatory norm for humanitarian intervention.

The limitation of this research is that Kosovo's special case may be only the beginning of this kind of conduct in international community's military actions against violations of human rights.

## **3. The doctrine of nonintervention**

In this age of weapons of mass destruction, the threat of war can now be seen in terms of fatal casualties. This prospect of such massive lost forces all to examine the jus ad bellum in terms of human rights. Contemporary international law prohibits violations

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of human rights and humanitarian law committed by the state against its own citizen. States must respond to those violations of international norms with nonmilitary actions. NATO's actions in Kosovo raise the question whether international law permits the use of force in order to stop violations of human rights committed by a sovereign state.<sup>11</sup> (Jonathan I Charney, "Anticipatory Humanitarian Intervention in Kosovo", nov 1999, Vanderbilt Journal of Transnational Law, 1232).

The doctrine of nonintervention is grounded in the principle of sovereignty and is established in the UN Charter in Article 2(7) where it states that "*Nothing contained in the present Charter shall authorize the United Nations to intervene in matters which are essentially within the domestic jurisdiction of any state or shall require the Members to submit such matters to settlement under the present Charter; but this principle shall not prejudice the application of enforcement measures under Chapter VII.*" (Charter of the United Nation available at <http://www.un.org/en/documents/charter/chapter1.shtml>).

But now when we are dealing with "failed states" what constitutes sovereign status is a question with important implication for the doctrine of nonintervention in either *de jure* and *de facto* sense. If we take in consideration sovereignty as being something that is recognize by international community to a state we can say also that the boundary line between sovereignty and intervention is shifting depending on what is meant to be a state.

#### **4. UN, NATO and the legality and legitimacy of intervention**

Kosovo war was as Vaclav Havel said in an address the Canadian Senate at House of Commons on April 29, 1999, "*probably the first war that is not been waged in the name of national interests but rather in the name of principles and values. (...) Milosevic does not threaten the territorial integrity of any member of the alliance. And yet the alliance is at war. (...) It is fighting because no decent person can stand by and watch the systematic, state-directed murder of other people.*" (Vaclav Havel, "Kosovo and the End of the Nation-State", in N.Y. REV. OF BOOKS, 10 iun.1999).

NATO's military action over Kosovo has put the problem of legality and legitimacy of a military alliance to take such an action.

For NATO international security means political, social, economic and environmental stability, development and stability and that means that in a global world each conflict has its repercussions that can affect its member states through refugee, disruption of vital resources flow, terrorism and organized crime. (Article 24 and Article 25 of NATO's Strategic Concept available at [http://www.nato.int/cps/en/natolive/official\\_texts\\_27433.htm](http://www.nato.int/cps/en/natolive/official_texts_27433.htm).)

The absence of an UN Security Council resolution for NATO's action put the problem of the lack of legitimacy regarding Operation Allied Force because the UN is regarding as being the principal international agency that has the legitimacy for a military action.

Legal theorists, such as Hugo Grotius and Alberico Gentili, considered intervention to protect foreign populations from unjust and cruel treatment to be a just cause for recourse to war. Through just war theory NATO's intervention must respect five principles which are the same principles that conduct the laws of war in Geneva Conventions that are respected by the international society. The laws of war are based on just war principles regarding *jus ad bellum* and *jus in bellum* as well.

The use of force to protect people that cannot defend themselves and that are subjects of mass killing by their own government is allowed and perhaps prioritized over the traditional principle of non-intervention discussed before. In the light of those theses let's make a short analyze of the principles of just war theory applied on NATO's intervention in Kosovo.

Just war theory says that for the resort to force to be justified a state, or in these cases a coalition or international society must fulfill each of the following requirements: a) legitimate authority; b) right intention; c) last resort; d) proportionality; e) just cause.

*Legitimate authority.* UN Security Council is viewed as such an authority because the decisions are taken by unanimity of votes. Another argument is that UN has a universal character. But the decision is taken not by all UN members it depends on the five permanent members of Security Council. In Kosovo's case China and Russia have opposed to the military intervention.

Regarding NATO's decision process we can say that this organization is composed of more countries than UN Security Council and that every Member State has the equal right to vote any decision.

*Right intention:* NATO's declared intention was to stop aggression against civilians, to respect the UN Charter provisions and to enforce the UN Security Council Resolutions. (Speech by Lord Robertson, NATO Secretary General, "*Law, Morality and the Use of Force*", 16 May 2000, available at [http://www.nato.int/cps/en/natolive/opinions\\_18418.htm?selectedLocale=en](http://www.nato.int/cps/en/natolive/opinions_18418.htm?selectedLocale=en)).

Those intentions were proved by the fact that after the intervention the role of administering Kosovo was given to UN forces (UNMIK).

*Last resort:* Because the diplomacy failed to conduct to any amelioration of the situation we can say that intervention was the last resort. That it is proved by the fact that Milosevic regime ignored all Security Council resolution regarding Kosovo situation. (Resolution 1160 (1998) Resolution 1199 (1998) Resolution 1203 (1998) and Resolution 1239 (1999)). Other diplomatic measure failed, clashes and massacres have forced Contact Group Members (Russia, USA, Great Britain, France, Germany and Italy) to impose the start of negotiation process at Rambouillet on 6 February 1999. The peace process involved two parts: a) political autonomy for Kosovo; b) the presence of peacekeepers in Kosovo. (Rambouillet Agreements available at [http://www.state.gov/www/regions/eur/ksvo\\_rambouillet\\_text.html](http://www.state.gov/www/regions/eur/ksvo_rambouillet_text.html)).

But those negotiations stopped several times in February and in March 1999. Disagreement was over the components of the peacekeepers. USA insisted that NATO-led force to implement the agreements as Secretary of State, Madeleine Albright said "*It was asked earlier, when we were all together whether the force could be anything different than a*

*NATO-led force. I can just tell you point blank from the perspective of the United States, absolutely not, it must be a NATO-led force.*"( Secretary of State Madeleine K. Albright Press Conference following meetings on Kosovo Rambouillet, France, As released by the Office of the Spokesman, Paris, France, February 23, 1999,U.S. Department of State available at <http://secretary.state.gov/www/statements/1999/990223.html>).

American Ambassador Richard Holbrooke pays a visit to Milosevic the night before NATO's intervention began. His mission was to negotiate with the President the terms of peacekeeping presence in Kosovo. American's ambassador role was to try to prevent NATO's military intervention, as a last resort before the military action began. The response to this matter came that night from Serbian Parliament which released a statement that assert the reject of military presence as it is in the document presented at Ramboiullet, but it expresses the willingness to overview the character of international presence. Henry Kissinger said about Ramboiullet Accords that "*The Rambouillet text, which called on Serbia to admit NATO troops throughout Yugoslavia, was a provocation, an excuse to start bombing. Rambouillet is not a document that an angelic Serb could have accepted. It was a terrible diplomatic document that should never have been presented in that form.*" (Henry Kissinger in Daily Telegraph, 28 Jun.1999).

In this situation was hard to reach an agreement that both parts to agree to.

*Proportion:* In terms of capabilities NATO intervention was disproportionate. In terms of rules of war instead massive violations were reported by international organizations on both sides. During the bombarding campaign about 1000 civilians were killed from which 45 were children and more than 4500 sustain serious injuries. (For more detailed on *Body Count: The Civilian Casualties of NATO's bombing* available at <http://www.counterpunch.org/bodycount.html>).

Also the bombing campaign destroy civilian objectives that are protected by Geneva Conventions and Additional Protocols such as hospitals and health care centers, schools, cultural-historical monuments and religious shrines, historical monuments and museums. (For entire list consult <http://www.counterpunch.org/bodycount.html>).

These facts revealed that NATO had violated the principles of proportionality and necessity as well as principles of international humanitarian law.

On the other hand a group of former KLA members called the "Drenica group" are responsible for abductions, beatings, summary executions and, in some cases, the forced removal of human organs on the territory of Albania after the war ended. (Human Rights Watch, Under Orders: War Crimes in Kosovo available at <http://www.hrw.org/legacy/reports/2001/kosovo/>).

*Just cause:* humanitarian emergency represented the just cause for intervention. As the Report of the Independent Commission on Kosovo reported NATO's action "had the effect of liberating the majority population of Kosovo from a long period of oppression under Serbian rule". (Independent International Commission on Kosovo: The Kosovo Report available at [http://sitemaker.umich.edu/drwcasebook/files/the\\_kosovo\\_report\\_and\\_update.pdf](http://sitemaker.umich.edu/drwcasebook/files/the_kosovo_report_and_update.pdf)).

## **5. Responsibility to Protect and anticipatory self-defense**

No reference to a right of humanitarian interventions is found in UN Charter. In fact humanitarian intervention is a doctrine that gives a new interpretation to human rights provision in the Charter. This is a consequence of the new security landscape that provides a new interpretation of the nonintervention norms and on state sovereignty. New developments in international human rights law, particularly with regard to international crimes, require international society to take action in the face of widespread grave violations of human rights. Thus, one might argue that contemporary public international law and a proper contemporary interpretation of the U.N. Charter permit pure humanitarian intervention without Chapter VII authorization by the Security Council or a situation of self-defense.

Kosovo situation requires an anticipatory self-defense intervention on grounds of humanitarian situation. The incident that convinced international society to intervene took place in Racak on 15 January 1999. (Special Report: Massacre of civilians in Racak. Kosovo verification mission (KVM), 17.01.1999, available at <http://www.glypx.com/BalkanWitness/Racak-KVM-Report.htm>).

And there were also reports of displacement of Albanian Kosovars. The justification for an earlier beginning of NATO's military campaign is better argued by a decision to attack before violations widespread due to past actions of Milosevic regime and taken into consideration the future risk of conflict.

The principle in favor of military intervention for human protection purposes lays on several documents such as the human rights provisions of the UN Charter; the Universal Declaration of Human Rights together with the Genocide Convention; the Geneva Conventions and Additional Protocols on international humanitarian law; the statute of the International Criminal Court but the problem is that all those documents talk about the intervention after massive human rights are violated and after the escalation of the conflict.

NATO's intervention in Kosovo is a novelty in international relations because it is the first time when it resorts to force to tackle potential threats. This is the logic of anticipatory self-defense to eliminate an imminent or inevitable threat to international security.

## **6. Conclusions**

The evolution of security environment shows that the logic of preventive action in relation to the dynamic of those new threats to peace and stability as crimes against human rights.

Through just war theory Kosovo war was fought with zero casualties for the allied. Also we can say that the effect on Serbian policy was none and regarding proportion NATO's air campaign caused more damage among civilians and destruction of a large

area. OAF failed to capture Milosevic or to get him to resign and failed also in restarting peace and security in the area.

Kosovo was justified as a humanitarian intervention, but it accomplishes to establish the principle of anticipatory self-defense intervention and to create a precedent for future interventions. NATO's intervention in Kosovo has determined the appearance of a new concept in international relations "responsibility to protect".

The debate on NATO intervention in Kosovo in 1999 shows that there is no consensus on the idea that sovereignty can be beat by a principle assumed to be highest, that of protecting human rights.

Kosovo crisis revealed UN inability to manage situations like this kind of situations. We can also say that NATO's intervention was justified because the situation could lead to a conflict of large proportions that threat the entire region.

## References

1. Jonathan I Charney, "Anticipatory Humanitarian Intervention in Kosovo", Vanderbilt Journal of Transnational Law, nov. 1999.
2. Vaclav Havel, *Kosovo and the End of the Nation-State*", in N.Y. REV. OF Boos, June 10, 1999.
3. Lord Robertson, NATO Secretary General "Law, Morality and the Use of Force", Paris, 16 May 2000, speech available at [http://www.nato.int/cps/en/natolive/opinions\\_18418.htm?selectedLocale=en](http://www.nato.int/cps/en/natolive/opinions_18418.htm?selectedLocale=en).
4. Secretary of State Madeleine K. Albright, Press Conference following meetings on Kosovo Rambouillet, France, February 23, 1999, As released by the Office of the Spokesman, Paris, France, U.S. Department of State available at <http://secretary.state.gov/www/statements/1999/990223.html>.

## Documents and Websites

5. Charter of the United Nation available at <http://www.un.org/en/documents/charter/chapter1.shtml>.
6. NATO's Strategic Concept available at [http://www.nato.int/cps/en/natolive/official\\_texts\\_27433.htm](http://www.nato.int/cps/en/natolive/official_texts_27433.htm).
7. Resolution 1160 (1998) of 31 March 1998 available at <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N98/090/23/PDF/N9809023.pdf?OpenElement>.
8. Resolution 1199 (1998) of 23 September 1998 available at <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N98/279/96/PDF/N9827996.pdf?OpenElement>.
9. Resolution 1203 (1998) of 24 October 1998 available at <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N98/321/21/PDF/N9832121.pdf?OpenElement>.
10. Resolution 1239 (1999) of 14 May 1999 available at <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N99/143/75/PDF/N9914375.pdf?OpenElement>.
11. Rambouillet Agreements available at [http://www.state.gov/www/regions/eur/ksvo\\_rambouillet\\_text.html](http://www.state.gov/www/regions/eur/ksvo_rambouillet_text.html).
12. Body Count: *The Civilian Casualties of NATO's Bombing* available at <http://www.counterpunch.org/bodycount.html>.

13. Special Report: *Massacre of civilians in Racak. Kosovo verification mission (KVM)*, (17.01.1999), available at <http://www.glypx.com/BalkanWitness/Racak-KVM-Report.htm>.
14. Human Rights Watch, *Under Orders: War Crimes in Kosovo* available at <http://www.hrw.org/legacy/reports/2001/kosovo/>.
15. Independent International Commission on Kosovo: The Kosovo Report available at [http://sitemaker.umich.edu/drwcasebook/files/the\\_kosovo\\_report\\_and\\_update.pdf](http://sitemaker.umich.edu/drwcasebook/files/the_kosovo_report_and_update.pdf).

# The New Activism in Turkish Foreign Policy in the Middle East: Turkey's Mediator Role

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## Abstract

While Turkey had close relations with the Western European countries and the United States, it generally ignored its relations with the Middle Eastern countries during the Cold War. Despite Turkey's continuing tense relations with the countries in the Middle East after the Cold War during the 1990s, Turkey's active foreign policy towards the region has begun at the end of the decade and intensified after the victory of the Justice and Development Party (JDP) in the Turkish parliamentary elections in 2002. Turkey's relations with its neighbours in the Middle East has improved dramatically and Turkish government has started to participate actively in the solution of regional conflicts in the region. Although there are many different reasons of the change in Turkish Foreign Policy and Turkey's active involvement in the regional conflicts as a mediator, the economic motivations, Turkey's vested interests in stabilizing the region and the impact of the new foreign policy vision of the JDP government and the EU on Turkish foreign policy are the major reasons. When all these factors came together, they led to the emergence of Turkey as a mediator in the solution and the management of regional conflicts in the Middle East. Although Turkey mediated in many conflicts, due to the extent of the paper case study method is used and two conflicts, Israeli-Palestinian and US- Iranian conflicts, are selected as case studies to examine in more depth Turkey's mediator role in the Middle East. The main goal of this paper is to examine the new active Turkish Foreign Policy in the light of Turkey's mediator role in the resolution of conflicts in the Middle East. The paper also provides a theoretical framework that compares and contrasts realist and constructivist approaches to explain Turkey's mediation efforts in the region. The paper first examines the changing Turkish Foreign Policy towards the Middle East. Then, the reasons and motivations behind the new Turkish Foreign Policy and Turkey's emergence as a mediator are discussed. Finally, Turkey's mediation in and contribution to the Israeli-Palestinian and US-Iranian conflicts are explained. In sum, it is argued in the paper that Turkey's mediation efforts made Turkey a more significant and active actor in the Middle East and its role has been accepted by different regional and external actors. However, if Turkey wants to be a more trusted, respected and successful mediator in region, it should think about its objectives and assess the costs and benefits of its each step more carefully.

**Key Words:** Turkish Foreign Policy, Mediation, Regional Conflicts, Middle East

## **1. Introduction**

While Turkey had very close relations with Western European countries and the United States during the Cold War, it usually ignored its relations with the countries in the Middle East. Although Turkey's tense relations with the Middle Eastern countries continued during the 1990s, Turkey's active foreign policy towards the region has started at the end of this decade and intensified after the establishment of the AKP government in 2002.

In recent years, one of the main changes in Turkish foreign policy has been its willingness to play mediator roles in regional conflicts in the Middle East. Turkish government has participated in the solution of many conflicts in the region. For instance, Turkey brought Israel and Syria for indirect talks, mediated in the Iranian nuclear issue, invited Sunni groups to Istanbul to persuade them to involve in the political process and participated in the Gaza ceasefire negotiations.

Although Turkey involved in many conflicts as a mediator, this paper aims to explain its mediator role in the light of the Israeli-Palestinian and US-Iranian conflicts. The paper first analyses the changing Turkish Foreign Policy towards the Middle East. Then, the reasons and motivations behind the new Turkish Foreign Policy and its mediator role are discussed. In the third part, Turkey's mediation in and contribution to the Israeli-Palestinian and US-Iranian conflicts are explained.

## **2. The Recent Change in Turkey's Foreign Policy towards the Middle East**

In June 1945, Turkey decided that its security interests would be best protected by having good relations with the West against the communist threat and the cooperation started which also continued during the Cold War (Desai, 2005). While Turkey had very close relations with Western European countries and the United States, Turkey's neighbouring states in the Middle East were regarded with suspicion and apprehension. During the 1990s, Turkey had problematic relations with its neighbours such as Syria, Iran and Iraq in the Middle East. Turkey's national security strategy was redefined in 1995 and the Middle East was identified as the main source of threat. In that sense, Turkish government decided to increase the use of military means towards the Middle East (Altunisik, 2006, p.145). This shows that Turkey tried to solve problems through a traditional power politics approach rather than diplomacy in the Middle East in the 1990s.

In the late 1990s, Turkey has been trying to transform itself from a passive actor in regional issues to an active regional mediator and its relations with its Middle Eastern neighbours began to improve. While an active and multi-dimensional foreign policy began to be followed by Ismail Cem, the foreign minister of Turkey between 1999 and 2002 (Onis, 2011, p.49), after the victory of the Justice and Development Party (AKP, *Adalet ve Kalkınma Partisi*) in the parliamentary elections in Turkey in 2002, both the rhetoric and practice of Turkish foreign policy-makers have changed to a considerable extent. With the official appointment of Ahmet Davutoglu, the architect of the new Turkish foreign policy, as a foreign minister in 2009, Turkey's new active and

multidimensional foreign policy line becomes more visible, especially in country's efforts to play a more active role in the solution of regional conflicts.

Ahmet Davutoglu has a new vision that influences the recent changes in Turkish foreign policy discourses and preferences (Onis and Yılmaz, 2009, p.9). His "strategic depth" perspective underlined the key regional and global role of Turkey as a "central country" and it has become the leading principal of major foreign policy initiatives (Onis, 2011, p.53). The essence of the doctrine is using Turkey's historically rooted geostrategic significance to conduct a multi-pronged foreign policy. In that sense, Ahmet Davutoglu argues that "historical depth" that provides an assessment of the links between the past, present and the future and a "geographical depth" which is based on the dynamics of the relations between domestic, regional and global factors should be taken into account in order to formulate a long-lasting strategic perspective (Davutoglu, 2008, p.80).

Turkish Foreign Policy initiatives towards the Middle East under the AKP government are aiming to achieve two key goals. Turkey's first goal is to improve its relations with its neighbours in the Middle East. The second objective of the AKP government is to play a mediator role in order to reduce tensions between different players in its surrounding regions. However, to understand this new role of Turkey, the reasons of its new policy should be known. In the next part, the motives behind the Turkey's new activism in the solution of regional conflicts will be explained.

### **3. The Reasons of Turkey's Mediator Role in the Middle East**

There is a combination of several different reasons of the new Turkish foreign policy towards the Middle East and Turkey's mediator role in the region. These are Turkey's desire to follow its own interests and the factors such as the AKP's new vision and the European Union which shape Turkey's identity.

One of the main reasons behind Turkey's activism in the Middle East is economic. Economic interests have affected Turkish government's desire to have "zero problems with neighbours" and to make region more secure and stable by solving the conflicts through diplomacy (Kirisci, 2009). Both the Turkish government and business interest groups are aware that if Turkey has good relations with its neighbours in the Middle East and if there is peace in the region, there can be more possibilities for regional trade that can contribute to Turkey's economic interests.

Moreover, the stability in the Middle East is very significant for Turkey's security interests because being at the centre of regional conflicts threaten Turkey's own security and stability. In that sense, Turkey's national interest must be to support negotiations and peaceful approaches in regional conflicts to provide its security, territorial integrity and the welfare and safety of its citizens.

As an addition to Turkey's interests, the change in Turkey's identity due to the AKP government and its new vision and the European Union play an important role in Turkey's desire to play a mediator role in the Middle East. The European Union norms affect the active involvement of Turkey and the use of soft power in the regional

conflict resolution. The traditional foreign policy of Turkey was based on realist power assumptions and perceptions of threat from domestic and international actors since the Cold War but the EU accession process has affected Turkish foreign policy and it has shifted from a nationalistic to a soft power based foreign policy under the influence of European integration (Tekin, 2005, p.7).

The new foreign policy approach of the AKP and its vision also play important roles in Turkey's willingness to play a role as a mediator in the Middle East. Turkey started to seek to define a new identity and a role for itself in the new international system in the light of Ahmet Davutoglu's idea of strategic depth. The AKP government is aware that if Turkey deepens its involvement in regional matters, this would help Turkey to have an internationally proactive position (Davutoglu, 2008, p.96).

The reasons behind the change in Turkish Foreign Policy and Turkey's active involvement in the regional conflicts as a mediator are explained. In the next part, Turkey's mediation efforts in the Israeli-Palestinian and US-Iranian conflicts and its activities will be examined.

#### **4. Turkey's Mediator Role in the Israeli-Palestinian and US-Iranian conflicts**

To date, Turkish government has mediated between Israel and Syria, Israel and Palestine, Fatah and Hamas, Syria and Saudi Arabia, within the broader Sunni and Arab world and finally between the US and Iran. Due to the extent of this paper, it is very challenging to explain all these conflicts. In that sense, two conflicts, Israel and Palestine conflict and the US and Iran conflict are selected as case studies.

The Israeli-Palestinian conflict which is the most controversial conflict of the region is chosen as a case study. It is selected because it is the main problem of the Middle East and it is argued that until the resolution is achieved, there will be a little chance of solving other problems and to ensure stability in the region. Additionally, the US-Iran conflict is selected in order to explain Turkey's mediation role. It is chosen because it is a unique case between a Western country and a Middle Eastern one in which Turkey mediates. In that sense, it would help find an answer to the ongoing debate on whether Turkish foreign policy has shifted from the West to the East.

#### **5. Turkey's Mediator Role in the Israeli-Palestinian Conflict**

Turkey played a significant mediator role between Israel and Palestine. Due to its good relations with both sides, Turkey has worked as a facilitator, facilitated communication, provided a safe space for meetings and conveyed messages between the parties (Altunisik, 2008, p.51-52). Turkey's facilitation has also been accompanied with growing number of activities reflecting a structural prevention strategy. TOBB-BIS Industry for Peace Initiative that is led by the Turkish Chambers and Commodity Exchange in Gaza has been a good example of these activities. The initiative began after the withdrawal of Israel from Gaza with the support of Israeli, Palestinian, and

Turkish governments and it bases on the understanding that private sector dialogue is useful for confidence-building ([Altunisik, 2008, p.51](#)).

Despite Turkey's important contributions to negotiations between Israel and Palestine and the development of both the economy of the area and economic relations between the two countries, Turkey's mediation efforts ended due to the back to back crisis between Turkey and Israel. The Israel's military campaign in Gaza in 2009 caused a tension in Turkish-Israeli relations. The Gaza operation was interpreted personally and it was perceived as a disgrace towards Turkey. Turkish government thought that their efforts to provide peace were not taken seriously by the Israeli authorities ([Altunisik and Cuhadar, 2010, p.385-386](#)). At the 2009 [World Economic Forum](#) conference in [Davos](#), Turkish Prime Minister Recep Tayyip Erdogan has strongly criticized Israel's Gaza offensive and walked out of the debate. The Turkish government's condemnation of Israel's Gaza offensive led to a serious deterioration in the bilateral relationship. Turkish government's criticism of Israel did not cause only the deterioration of the relations between Turkey and Israel, but it also caused the emergence of a debate about the impartiality of Turkey. Erdogan only criticized Israel side without considering the responsibility of Hamas in the whole saga. In that sense, Turkish attitude towards the Gaza attack was interpreted that Turkey acted as a spokesperson for Hamas. Turkish government's reaction to the Gaza attack damaged Turkey's mediator role and shaken the confidence of Turkey as an honest broker in the Middle East.

In sum, Turkish government could not manage to behave as a neutral facilitator and to separate its own interests from the disputing interests. Therefore, these developments damaged Turkey's impartial and credible mediator role.

## **6. Turkey's Mediation in the US-Iran Conflict**

Turkey played a mediator role with Brazil between the Obama administration and Iran. Turkey's role in the US-Iranian conflict bases on passing messages between Tehran and Washington mostly as observations and advice. This shows that Turkey is the country that can access to the highest officials of both Iran and the US and work as a bridge between the two sides ([Tavernise, 2008](#)).

With the participation of the foreign ministers of Turkey and Brazil along with Turkish Prime Minister Recep Tayyip Erdogan and Brazilian President Luiz Inácio Lula da Silva, a joint declaration has been signed between Turkey, Brazil and Iran on 17 May 2010. According to this agreement, Iran would send the 1,200kg of low-enriched uranium to Turkey in one shipment in exchange for enough higher-enriched uranium to fuel an Iranian research reactor within a year ([Inbar, 2011, p.138-139](#)). This agreement can be accepted as a success because Turkey and Brazil managed to convince Iran to accept the exchange.

However, the Vienna Group, the EU, and the Obama Administration were still sceptical of the Tehran Agreement and they did not respond positively to the Iran-Turkey-Brazil nuclear fuel swap agreement. Just days after the 17 May announcement, Washington announced that the Security Council would go ahead with a new round of sanctions on Iran ([Carpenter, 2010, p.27](#)). On the other hand, Turkish government

argues that the problem should be solved through diplomacy (Tavernise, 2008), Turkish Foreign Minister Davutoglu said “There are no grounds at the moment for a debate on sanctions”. Despite Turkey’s attempts to solve the issue through diplomacy, on June 9, 2010, Resolution 1929 was adopted by a vote of 12 in favour to 2 against (Brazil, Turkey), with 1 abstention (Lebanon) in the UN Security Council. Turkey with Brazil voted against a new round of UN sanctions on Iran in June 2010 (Inbar, 2011, p.139).

Turkey’s “no” vote in the UN Security Council against the proposed sanctions against Iran was criticised by the Western countries and was perceived as a sign of divergence in Middle East policy between Turkey and the West (Onis, 2011, p.61) but Turkish government strongly rejects this idea. The main problem is that Turkey cannot explain its new approach to the world and especially to the Western world very well (Birand, 2010). It is also understood that if Turkey wants to implement its multi-dimensional policies over the long term, it should be more careful in maintaining balance between the Western and the Middle Eastern countries.

In fact, the goal of the Turkish government was to avoid another military conflict in its immediate neighbourhood and solve the issue through diplomacy and peaceful means because the main worry of Turkey is that a further destabilisation of the Middle East may bring high economic costs to Turkey and it may cause instability in its close neighbourhood that would threaten both Turkish and regional security.

From the beginning of the process, Turkish government was aware that the deal they were negotiating was not a solution for the whole nuclear program conflict but they were satisfied with what they achieved because it was "a step forward on resolving the swap issue, which is one of the important elements of the nuclear file" (Hürriyet Daily News, 2010). It is clear that Turkey and Brazil have made a positive contribution to the process by ensuring Iran’s agreement to the international community’s demands. Although Turkey’s and Brazil’ efforts did not prevent new sanctions to Iran, this is not the failure of Turkey or Brazil because it was the Obama administration that closed the door to a solution through diplomacy and negotiations.

## **7. Conclusion**

Turkey’s foreign policy towards the Middle East has dramatically changed at the end of the 1990s and Turkey started to follow active policies in the region. Turkey’s security and economic interests in the region, the impact of EU and the new foreign policy vision of the AKP on Turkish policies led to the emergence of Turkey as an important regional actor in the management and resolution of conflicts in the Middle East.

Although Turkey participated in the solution of various regional conflicts, the Israeli-Palestinian and US-Iranian conflicts are focused in this paper to assess Turkey’s mediator role in the Middle East in more detail. Although Turkey contributed to negotiations between Israel and Palestine and the improvement of economic relations between the conflicting parties, Turkey’s pro-Palestinian policies damaged its image as an impartial and credible third party. Moreover, Turkey’s efforts to solve the conflict

between Iran and the US through negotiations and prevent a new war in the region cannot be ignored. However, it is clear that Turkey could not balance its relations with Tehran and Washington and Turkey's policy towards the solution of the US-Iranian conflict was interpreted as a shift in axis by the Western countries.

In sum, Turkey's mediation efforts made Turkey a more important and active actor in the Middle East and its role has been accepted by different regional and external actors. However, if Turkey wants to be a more trusted and respected mediator in region, it should think more carefully about its objectives and the appropriateness of its methods. Moreover, the cost and benefit of its each step should be assessed very carefully.

## References

1. Altunisik, M.B. (2006) "Turkey-EU Relations: Creating New Synergies in the Middle East", in Michele Comelli, Atila Eralp and Çiğdem Üstün (eds) *The European Neighborhood Policy and the Southern Mediterranean*, Ankara, METU Press.
2. [Altunisik](#), M.B. (2008). "The possibilities and limits of Turkey's soft power in the Middle East", *Insight Turkey*, April 2008, Vol.10, No.2.
3. Altunisik, M.B. and Cuhadar, E. (2010). "Turkey's Search for Third Party Role in Arab-Israeli Conflicts: A Neutral Facilitator or a Principal Power Mediator", *Mediterranean Politics*, Vol.15, No.3.
4. Birand, M.A. 2010. "Bakışlar hızla Türkiye'ye dönüyor." (The views are quickly returning to Turkey), *Milliyet*, <http://www.milliyet.com.tr/bakislar-hizla-turkiye-ye-donuyor/-mehmet-ali-birand/siyaset/yazardetay/20.10.2010/1303828/default.htm> [Accessed 20 October 2010].
5. [Carpenter](#), T.G. (2010). "Estrangement: The United States and Turkey in a Multipolar Era", *Mediterranean Quarterly*, Vol.21, No.4.
6. Davutoglu, A. (2008). "Turkey's Foreign Policy Vision: An Assessment of 2007" *Insight Turkey*, Vol.10, No.1.
7. Desai, S. (2005) "Turkey in the European Union: A Security Perspective - Risk or Opportunity?", *Defence Studies*, Vol.5, No.3.
8. *Hürriyet Daily News*, 2010. "Turkey sticks to Iran deal, determined to advance EU talks", <http://www.hurriyetdailynews.com/n.php?n=turkey-sticks-to-iran-deal-2010-05-27> [Accessed 13 April 2011].
9. Inbar, E. (2011). "Israeli-Turkish Tensions and their International Ramifications" *Orbis*, Vol.55, No.1 pp.132-146.
- Kirisci, K. (2009). "The Transformation of Turkish foreign policy: The rise of the trading state", *New Perspectives on Turkey*, Vol. 40.
10. Onis, Z. (2011). "Multiple Faces of the "New" Turkish Foreign Policy: Underlying Dynamics and a Critique", *Insight Turkey*, Vol.13, No.1.
11. Onis, Z. and Yilmaz, S. (2009). "Between Europeanization and Euro-Asianism: Foreign Policy Activism in Turkey during the AKP Era", *Turkish Studies*. Vol.10, No.1.
12. [Tavernise](#), S. 2008. "Turkish Leader Volunteers to Be U.S.-Iran Mediator", <http://www.nytimes.com/2008/11/12/world/europe/12turkey.html> [Accessed 7 April 2011].

13. Tekin, A. 2005 “The evolution of Turkish foreign policy: the impact of Europeanisation”, *Workshop on EU Turkey Relations: Opportunities, Challenges and Unknowns*, University of Pittsburgh.

# Are NGO activists in Mostar and Novi Sad all middle-class? (And why does it matter?)

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In this paper I first present a critique based on the notion that most NGO activists in the Balkans are representatives of the middle- or maybe even upper-classes. I then introduce the notion of social class in general and look at how theories of social stratification were applied in the region in the time of Yugoslavia and how they are applied now. Finally, I question the usefulness of Western social stratification models in contemporary Bosnia and Herzegovina (BiH) and Serbia and look for other ways to describe the position of NGO activists within their local societies. The paper is based on my ongoing comparative research of NGOs and civil society development in Mostar and Novi Sad. These two cities have much in common: they are both in a way their countries' second cities, they are both river towns, they both had bridges destroyed during the Yugoslav wars of the 1990s and both are multiethnic. Yet, they are also very different. Mostar is a divided city where Croat and Bosniak populations are separated by an invisible wall that runs along the main *Bulevar*. It has directly experienced all the atrocities and destruction of the war. Novi Sad was much more fortunate. Apart of having its bridges bombed by NATO forces, it was practically untouched by the fighting. Low-level violence towards members of Novi Sad minorities has been recorded but in principle the place remained peaceful. Still, it cannot be said that it was spared the trauma of war. Many of the Novi Sad men were incorporated in the Serbian army and the city experienced an influx of refugees as well as an outflow of those who managed to emigrate, mostly local Hungarians. For this, present day challenges in both cities are actually often alike and some parallels can be drawn between the developments in the civil society sphere in both places.

## 1. Critique: or, Why does it matter?

The critique can be summarized as follows: huge sums of international assistance to the Western Balkans are distributed to, and used by, a small number of well educated, middle- or upper- class NGO elites. Through complex programmes in expensive locations these people are taught how to be tolerant, open to other cultures and how to

foster reconciliation with other ethnic groups in the region. It can be doubted whether these are the social strata that need this kind of assistance most. Also, to what extent do they represent the local society or at least understand its problems? This last concern has been expressed in relation to NGOs in ‘democratizing countries’ throughout the world by Carothers and Barndt (1999):

- The burgeoning NGO sectors in such countries are often dominated by elite-run groups that have only tenuous ties to the citizens on whose behalf they claim to act, and they depend on international funders for budgets they cannot nourish from domestic sources (p.20).

The ‘NGO sector’ was named a ‘middle-class phenomenon’ also in the context of post-Yugoslav states:

- NGOs are essentially a middle-class phenomenon. In order to engage in voluntary activities a person should be financially secure and have some spare time (Andjelić, 2003, cited in Grødeland, 2006, p.239).

Furthermore, not only it is noted that NGO members are usually, if not always, middle-class, it is sometimes believed that an effective ‘NGO sector’ is dependent on the existence of this stratum. For example, a study of Bulgarian NGOs by Steel *et al.* (2007) revealed: ‘This NGO sector is also affected by larger socio-economic factors, such as lack of a large middle class...’ (p.40). It is clear from this statement that the authors are not questioning whether the NGO members all have similar social origins but see this phenomenon as an integral part of the non-governmental sector.

All in all, NGO activists are often labelled ‘middle-class’. This is then used as basis for criticism and also as a means for prejudging who these people actually are. Subsequently, the idea of ‘middle-class NGOs’ influences the understanding of inner-NGO dynamics, inter-NGO relations and the role of NGOs within Western Balkan societies. Below I will try to show why any class-labelling of NGO members or leaders is, in the Western Balkan context, misleading.

## **2. Social classes in Serbia and BiH**

The theories of Karl Marx and Max Weber are sometimes seen as the basis of all other social stratification theories (Giddens, 2009, p.438). Marx postulated the conflict between two opposing classes, the owners of the means of production and their employees, while Weber elaborated on Marx’s ideas and included, as important factors determining one’s place on the stratification ladder, ‘status’: i.e. professional qualifications, lifestyle, ‘standing in the eyes of others’ etc., and ‘party’: belonging to a group of people of similar backgrounds and interests (*Op. Cit.*, p.439-442). Many other theories of class have subsequently been developed, and the concept remains both imprecise and frequently contested. Nevertheless, in the context of critiques and generalisations regarding Western Balkan NGOs, the common concept of class is the one that matters as these critiques and generalisations are usually pronounced outside

of academic discussions on class. The common notion of class is close to that of Weber and can be summarised as follows: a class is a group of people who share similar life opportunities and lifestyles; these depend mostly but not exclusively on material standing and professional qualifications; and there are three main classes: working class, middle-class and upper-class.

Class is much less discussed in the contemporary Western Balkans than in Western Europe.<sup>12</sup> This might be because the concept became discredited in the time of communist Yugoslavia. While it was officially claimed that in Yugoslavia there was only one class – the working-class – and that everyone in the country was equal, in fact large disparities existed between those ‘more-’ and those ‘less-equal’ (Allcock, 2000, p.186-210). Furthermore, the actual stratification of the present-day societies of Serbia and BiH is under-researched. The fact that these societies are both ‘post-war’ and ‘in transition’, and therefore strongly influenced by ‘parallel political forces’ as well as being in a state of highly dynamic change, makes them a particularly unattractive object for research into social stratification.<sup>13</sup>

For instance, Serbian researchers who conducted a study on social distance in Vojvodina, between 2001 and 2005 used a ‘slightly modified’ Goldthorpe *et al.* scheme,<sup>14</sup> that is, one of four classes, based exclusively on occupation:

- 1. High class (lawyers, doctors, judges, executives, officials); 2. white collar (administrative officers, economists/commercialists; engineers, journalists, professors, teachers, priests, artists); 3. lower-middle class (non manual occupations: foremen, policemen, military persons, chauffeurs, drivers, taxi drivers, technicians, salesmen, caterers); 4. manual worker class (unskilled, semi-skilled and skilled workers, craftsmen, farmers and builders) (Marinković, 2007, p.77-78, citing: Goldthorpe *at al.*, 1969).

Yet these researchers themselves concluded that this scale was not appropriate for describing Serbian society and that for future research a more accurate one should be developed (*Op. Cit.*, p.78).

According to my own observations and interviews in Mostar and Novi Sad, such a scheme would be inaccurate in these cities. Even if I were to agree that using any kind of stratification scheme based exclusively on occupation made sense in this context, I

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<sup>12</sup> For example: a search in the archives of guardian.co.uk and danas.rs – online versions of *The Guardian* and *Danas* (one of the most read daily newspapers in Serbia) – reveals that while in the *Guardian* middle-class was used 2005 times in articles in 2010 and over 900 times in the first six months of 2011, in *danas.rs*, *srednja klasa* and *srednje klase* (‘middle-class’ and ‘of middle-class’) were used only 44 times between June 2010 and June 2011.

<sup>13</sup> I am grateful for this assertion to my fellow PhD student Elisabeth Schimpfoessl.

<sup>14</sup> Marinković (2007) and his colleagues divided the original ‘white collar’ stratum into ‘high class’ and ‘white collar’.

would have to suggest ‘filling in’ the scheme with several known local types. First, in the ‘high class’, I would also include successful business people, ex-warlords (apparently everyone seems to know who they are), at least some politicians, local *mafiosi* and specifically entrepreneurs of the construction business. Second, in Mostar there is a significant group of returning diaspora – people who spent 17 or so years in the countries like Germany or France and recently decided to come back. They probably could be regarded as a class on their own. Third, also in Mostar, because of the huge unemployment, we could talk of a ‘non-working class’. Finally, there is a large ‘under-class’ – mostly, but not exclusively, poor Roma who live far below official levels of poverty and without basic amenities. This is not to say that all the extremely poor are Roma or that there are no Roma who live middle-class lifestyles. Nevertheless, the size of this under-stratum is largely underestimated. According to one of my interviewees, in Novi Sad, which officially has a population of 380 000, there could be as many as 40 000 poor Roma, many of whom are not registered and thus not counted in any official statistics (interviewee no. 7, Novi Sad, August 2010). The existence of these characters and groups – warlords, *mafiosi*, returning diaspora, the huge number of unemployed and socially excluded – means that even if a scheme like the one of Goldthrope *et al.* was to be applied, it would not allow easy comparison with Western societies. It would also be highly misleading to try to view contemporary Serbian and Bosnian-Herzegovinian societies through the prism of Western concepts of working-, middle- or upper-classes.

Also Salmenniemi (2010) has observed that the application of this classification to contemporary Eastern-European societies is problematic. One reason is that, unlike in Western societies, in Eastern Europe, during the communist rule, cultural capital – as described by Bourdieu (1986) – did not go in tandem with financial prosperity. Furthermore, after the collapse of communism, financial capital was not always gained through the use of the cultural capital typical of Western ‘upper classes’. Instead, there was the emergence of *nouveaux riches* whose fortunes were, in the case of Serbia and BiH, often built on war trade and mafia dealings. On the other hand, a high level of education and cultural capital typical of Western ‘upper-classes’ can go in tandem with an occupation more typical of the Western ‘working class’. My interviewee who held an MA in philosophy and appreciated contemporary avant-garde arts and at the same time made her living working as a cleaning-lady could be the best example.<sup>15</sup> The fact that some people managed to use their cultural capital to secure employment in local and foreign NGOs is in this context a unique phenomenon.

### 3. NGO leaders

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<sup>15</sup> The idea that appreciation of avant-garde arts as well as education in disciplines like philosophy, sociology or history of art, are most typical of the upper-classes was presented in Bourdieu and Passeron (1990, p.74,94ff). While it can be questioned whether this is still the case, I would argue that in Western society one would not expect a manual worker (e.g. a cleaning-person) to have higher education and an interest in avant-garde arts.

Could NGO members in the Western Balkans be considered middle-, upper-middle- or even upper-class? In most of the cases they could, if we assume that profession on its own can be a determinant of class (as is the case in the above-mentioned Goldthrope *et al.* scheme) and that in the case of students, the jobs of their parents should be taken into consideration. Some of my interviewees had parents who were involved in politics or who held high positions in the construction industry. Quite a few were the children of teachers or high-level engineers (e.g. working for the aircraft industry). Some had parents who were well educated yet unemployed professionals. Several of the NGO activists I met were members of the returning diaspora. Also those for whom the NGO job was their main occupation, could be seen as middle class because of the way NGOs function in the West.

All the same, this view would be misleading, for at least two reasons. First, if it is understood that class depends not only on professional qualifications but also on factors such as material standing and reputation within society and that it is reflected in similar life opportunities and lifestyles, a model that classifies people only according to their professions will produce results in the Western Balkans which are incomparable to those produced in the West. This is because in the post-Yugoslav context one's occupation or the occupation of one's parents does not have to go in tandem with material wealth or reputation within society. Secondly, the activism in NGOs further changes these dynamics by providing individuals with resources otherwise unavailable for someone with their current material standing.

For example: a group of my interviewees, all members of the same NGO, lived in Novi Sad on the top floor of an old building in a flat which must have been cheap to rent and hence affordable for them because it had no windows except in the roof, facing nothing but the sky. One of them made his living producing clay earrings which he sold from a small cardboard show-case carried on his neck; since the items he was selling did not touch the ground, he was not, according to the law, conducting business *on the territory of the city*, and so did not need to register as self-employed, nor pay the usual business tax. At the same time their poor apartment was equipped with several computers and a modern digital overhead projector – 'leftovers' from the NGO programmes they had organised. Similarly, some NGO members would travel extensively while actually living very modest lives. On the other hand, some NGO activists manage to receive pay which is considered very high locally because of their involvement in the implementation of foreign-funded programmes. Remuneration for running a couple of short workshops on an EU funded week-long programme can be several times higher than the average monthly pay in Serbia or BiH. At the same time these jobs are highly unstable, their continuity is unpredictable and they offer no social insurance or any pension prospects.

Because of the discrepancy in material standing, education, occupation, lifestyle, prospects for the future, etc. which would place the same individuals on many different levels of the stratification ladder, it is deceptive to call them middle- (or any other) class. Who are they, then, and how can we understand their background? I suggest that, rather than trying to force NGO members and activists into foreign social stratification models, we look at them as bearers and multipliers of a specific cultural

and social capital (Bourdieu 1986). These children of teachers, highly qualified engineers or local politicians, who are themselves students or graduates of degrees which were in the West also considered 'aristocratic' not that long time ago, are natural counterparts for the Westerners who engage in all different forms of assistance to the Balkans. The donor may have a completely different material standing than the grant recipient but they are likely to share the appreciation of philosophers and of modern art and the way they think about politics and about what is and what is not important for the contemporary Balkan countries. The linguistic capital and cultural sensitivity which are often developed through NGO work itself seem to be much more important in a successful NGO career than class belonging. The fact that many NGO activists are 'communist' and in many other ways different from their non-NGO peers can strongly influence both inner-NGO dynamics and the relationship between NGOs and the rest of local society.<sup>16</sup>

Social capital transmitted within families and organisations also contributes to shaping the 'NGO world' in Western Balkans. For example, the child or younger sibling of an interpreter who worked for OSCE or the UN is likely to engage in non-governmental work and to extend the social capital they received. Within associations this dynamic can be still more vibrant as social capital is introduced by, and exchanged between, senior and junior activists, ordinary members, foreign volunteers and even researchers...

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To summarise: NGO leaders are not middle-class. This is because their occupation (or occupation of their parents), education and material standing do not coincide in a way which would allow placing them in this, or any other, stratum. Furthermore using Western models of class belonging in the Balkans is, even in the wider context, problematic. Bourdieu's theories of cultural or social capital are a possible way of explaining why some people in the Western Balkans do, while others do not, become, and succeed as, NGO leaders.

## References

1. Allcock, J. B. (2000) *Explaining Yugoslavia*. New York, Columbia University Press.
2. Andjelić, N. (2003) *Bosnia-Herzegovina: The End of a Legacy*. London; Portland, Or., Frank Cass Publishers.
3. Bourdieu, P. (1986) The forms of social capital. In J. E. Richardson (Ed.), *Handbook of Theory and Research for the Sociology of Education* (pp. 241-258). New York, Greenwood Press.
4. Bourdieu, P., & Passeron, J.-C. (1990) *Reproduction in Education, Society and Culture* (Second.). London, Sage.

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<sup>16</sup> That NGO leaders are in a specific way 'communist' and in many ways 'different' is one of other findings of my research.

5. Carothers, T., & Barndt, W. (1999) Think Again: Civil Society. *Foreign Policy*, 117(Winter), 18-24,26-29.
6. Giddens, A. (2009) *Sociology* (6th ed.). Cambridge, Polity.
7. Goldthorpe, J. H., Lockwood, D., Bechhofer, F., & Platt, J. (1969) *The Affluent Worker in the Class Structure*. Cambridge, Cambridge University Press.
8. Grødeland, Å. B. (2006) Public Perceptions of Non-Governmental Organisations in Serbia, Bosnia & Herzegovina, and Macedonia. *Communist and Post-Communist Studies*, 39(2), 221–246. Elsevier.
9. Marinković, D. (2007) Social Distance in Vojvodina. In Ž. Lazar (Ed.), *Vojvodina Amidst Multiculturalism and Regionalization* (pp. 75-89). Novi Sad, Mediterran Publishing.
10. Salmenniemi, S. (2010) Rethinking Power in Russia. *Keynote lecture at the 2nd UK-Finish Postgraduate Workshop: Critical Reflections on Russia and Eastern Europe held at the University of Glasgow*.19-20 November. Glasgow, unpublished material.
11. Steel, B. S., Henderson, S., & Warner, R. L. (2007) NGOs and the Development of Civil Society in Bulgaria and the USA. *Innovation*, 20(1).

# A Possible Configuration of the Orthodox Religious Space

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The idea of this study originates in the distinction made by Jesus Christ between two biblical figures: Martha and Mary. Both of them loved God, but each of them in her own way. The Church Fathers explained that Mary's love was more spiritual and superior to Martha's, whose love was more pragmatic. Starting from this point, I consider that the sociological concept of religiosity has many facets and that there are more possible, valid and justified types of religiosity. The main hypothesis is that religiosity exists in many forms at empirical level, all accepted by the Orthodox Church. They are closer or farther from the ideal type of Orthodox Christian religiosity. The key concepts represent a transposition of the two religious realities on a sociological plane. It is about *superior religiosity* - as significant for contemplative religiosity - and *inferior religiosity* - for the religiosity whose symbol is Martha. The criterion of understanding religiosity is a predominantly qualitative one. In other words, superior religiosity means an intensification of religious life, a deep, thorough experimentation of the norms of the Church. We have tried to identify inside the structure of Romanian religiosity any sub-structures, possible types of religiosity, starting from the distinction between superior religiosity and inferior religiosity, regarded as a qualitative differentiation and not a quantitative one. The superior religiosity is characteristic for monastic life and the inferior religiosity is specific for lay life. The hypothesis was analyzed in two stages: at the individual (personal) level and community (county) level. In the first case, I performed a secondary analysis of the data of the European Values Survey from 2008. The dimensions (the variables) used to distinguish the religiosity were integrated into the concept of inferior religiosity. Through statistical analysis we have identified distinct levels of religiosity, corresponding to four types of religiosity, which are mixed from different elements of superior or inferior religiosity. They can be characterized from the point of view of their capitals: material, social and educational capital. At the aggregate level, the hypothesis and the proposed scopes were integrated inside the existential security theory proposed by Ronald Inglehart and Pippa Norris. I tested the relation between religiosity and human development and demographic indicators, to determine possible predictors of religiosity at the county level. The conclusion of our regression analysis is that a superior level of religiosity cannot be explained only through macroeconomic and demographic indicators. The variation of this type of religiosity is explained first of all through the number of the churches in a county (as indicator of inferior religiosity, a lay religiosity) and the position in the geographic space. Thus, we can identify more

religious areas than others. The research was limited by the lack of data circumscribed to the concept of *superior religiosity* at both levels of analysis. We consider that it is necessary to collect the same detailed data regarding religiosity in order to have a thorough approach to this. We consider this study valuable because it identifies other explanatory factors of religiosity, in addition to the socioeconomic and demographic factors.

**Key words:** Superior Religiosity, Inferior Religiosity, Type of Religiosity, Existential Security, Romanian Orthodox Church.

## 1. Religious differentiation in the New Testament

The idea of differentiation and acceptance of its reality permeates the religiosity model suggested by the New Testament. People differentiation by their fruits is the result of the different diligence of each one of them: *Now in a great house there are not only vessels of gold and silver but also of wood and clay, some for honourable use, some for dishonourable* (Holly Bible, II Timothei 2 :20-21). There is also the well-known Parable of the Sower and the fact that the seeds that fell on good soil bear fruits differently: *But those that were sown on the good soil are the ones who hear the word and accept it and bear fruit, thirtyfold and sixtyfold and a hundredfold* (Holly Bible, Mark 4:20). A good example for the variety of possible religious types is Martha and Maria (Holly Bible,

Luke 10:38-42) which are expressions of two different approaches to God (Briancianinov, 2008).

Starting from this accepted differentiation, the main hypothesis is that the Orthodox religious space is a space of differences and it is determined by two major coordinates: the individual structure of capitals (material, educational and social structure) and the individual religious capital. This differentiation reflects the variance of the distance at which the religious types are placed far from the ideal type of Christian- Orthodox religiosity. The criterion for understanding the religiosity is a predominantly relational-comparative one which supposes a comparison with the ideal type named above. In other words, maximum religiosity means an increase of religious life, a deep, thorough experimentation of the norms of the Church, a closer distance of the ideal type.

## 2. Types of religiosity

Using the data of the European Values Survey from 2008 we composed a maximum religiosity index which could be a substitute for the ideal type of religiosity. The selection criteria of the variables analyzed were two: the conformity to the Christian Orthodox theological principles and the distinction between maximum religiosity and minimum religiosity. The latter means an increasingly higher of the alienation of the ideal type of religiosity.

I selected the indicators which better distinguish the Orthodox religious space from the other religious spaces, but more general indicators, too: God's importance and the significance of religion in personal life, the belief in a personal God as a distinctive

element of Christianity from other religions, but also the belief cleansed of any pagan, idolatrous element, the validity of the truth of your own religion compared to the truths of other religions, the individual religious practice, the consequence of religiosity upon individual daily life, the relation with the Church through the recognition of trust in it, the religious socialization through establishing the frequency of attendance at 12 years.

Through the addition of the values of the above -mentioned indicators, two scores were built: the maximum religious indicator and the minimum religious indicator. To bring all variables to a religiously significant common unit, they were recodified beforehand, assigning maximum values to the variables describing maximum religiosity, medium values to those describing minimum religiosity, and minimum values to the ones for non-religiosity. The amplitude of the two scores of religiosity- maximum and minimum- was 12.

Using cluster analysis, we identified four religious types in the Orthodox religiosity space. Each type presupposes the presence of superior and inferior elements of religiosity in a different degree. The increasing presence of the maximum religiosity elements means a closer proximity to an ideal type of Orthodox Christian religiosity which needs to be established by subsequent analyses.

The most religious type is there is the type where superior religiosity elements prevail. The believers who are included in this type named MAXREL represent the hard core of religiosity. They adhere the most to the established norms of the Church. Thus, God and religion are the more important in personal life as the individual states that God is personal, he does not assign any value to amulets, he considers that the truth of his religion is Truth, he prays every day, he attends the religious service many times a week, he does not agree with divorce, with the adoption of children by homosexual couples and cohabitation, he has much confidence in the Church.

The following type in the decreasing order of the maximum religiosity elements is the MIXTREL type. It is formed by those believers who are characterized by maximum religiosity elements and minimum religiosity elements in an equal proportion, the values of the two indicators being closed by the average in the reference population. It could be named the type of „religiosity of circumstance” , of the uncertainty in sustaining of the own believes, religious attitudes.

The type which is characterized by the visibility of minimum religiosity elements, accompanied by the rapid decrease of the maximum religiosity elements is the one that we have named MINREL. Here, the elements of non-religiosity start to appear.

The last type is NONREL. In this case, the non-religiosity elements are the most highlighted, much above the average. It could be identified with believers who belong to the Church only through their baptism certificate; their creeds, attitudes and religious practices are most out of the specificity of Christian Orthodoxy.

The European religious space was analysed on two levels: the one of religious indices which describes the way in which different religiosity elements are structured within each religious type and the one of individual capitals, by characterizing each type according to the social, educational and material capital possessed.

### 3. Findings

#### The structure of the religious capital

As regards the maximum religiosity, in an ascending order, Ukraine, Greece and Romania are placed above the average of the above-mentioned index calculated at the level of the entire group of Orthodox countries. Along the same line, the minimum religiosity index has values above the average in Bulgaria, Serbia, Belarus, and Greece.

The MAXREL type (Table 1) which is structured by highlighting the maximum religiosity elements is found in Greece and Romania. Here we have values of the maximum religiosity index which are clearly differentiated compared with those of the other indices. We can say that Greeks and Romanians which belong to type MAXREL are more religious than persons belonging to the same type but from the other five countries. In these, we can say that the MAXREL type is structured homogeneously, the differences between the maximum-minimum religiosity-non-religiosity being less obvious. In Belarus and Bulgaria, the difference between the maximum and minimum religiosity elements is less than in Russia, Serbia and Ukraine. In conclusion, an approximate hierarchy of the MAXREL type religious intensity is the following: Greece, Romania, Russia, Serbia, Ukraine, Belarus and Bulgaria.

Within MINREL type (Table 3), the minimum religiosity index has higher values than the maximum religiosity index in MAXREL type. This type is characterized by unidimensionality, meaning the high difference between the high values of the minimum religiosity index (around the value of 9) and the low values of the other indices (around the value of 1.5). Its purity is kept in all the countries except Russia. In conclusion, an approximate hierarchy of the religious intensity of MINREL type, by establishing the preponderance of the minimum religiosity elements on those of maximum religiosity is the following: Belarus, Bulgaria, Serbia, Romania, Ukraine, Greece and Russia.

MIXTREL (Table 2) is generated by the average values of the calculated indicators. The closest to the religiosity average is the mixed type in Belarus, followed by Bulgaria, and the furthest is in Russia and Ukraine.

NONREL type (Table 4) is characterized by the high values (over the average) of the non-religiosity indicator. Unlike MIXTREL within which the maximum religiosity and minimum religiosity indices have values around the average, within NONREL, these indices have values which are statistically significant higher than the average. The most powerful types of NONREL can be found in Greece, Romania and Russia, indicating an accentuated preponderance of the non-religiosity elements compared with the average.

Thus, on the religiosity index line, MAXREL type is best structured in Greece and Romania, MINREL type in Belarus, Bulgaria and Serbia, and NONREL type in Romania and Bulgaria.

As regards the occurrence frequency for each religious type in the religious field which is specific to each country (Table 9), we notice that MIXTREL type is the most frequent compared with the other types. It is followed by MINREL type. In Romania and Greece, the weight of the maximum religiosity group is double compared with that of non-religious people, a difference of the same type, but smaller, being noticed in Ukraine too. In Bulgaria and Serbia, the group of non-religious people is approximately two times bigger than that of persons with maximum religiosity, a significant difference in this regard being also noticed in Russia.

Along the same line, MAXREL type has the highest visibility in Romania (with reference to the other types), the information included in the researches made prior to this study which indicated that Romania has the highest level of religiosity amongst the Orthodox European countries being confirmed by another method. The situation in Russia, the country with the highest weight of the type which is characterized by the preponderance of the non-religiosity elements, is interesting.

A homogenous structure of the religious space in Ukraine, Russia and Belarus may also be highlighted, the other countries being characterized by its higher heterogeneity. Applying a possible tag, Belarus and Bulgaria would be MIXT type countries, Greece – MINIMUM type country, Romania – MAXREL type (with reference to NONREL). Russia may be considered a NONREL type country.

### **The structure of individual capitals**

The religious types can be characterized from the point of view of their structure of individual capitals: material capital, educational capital and social capital<sup>17</sup>.

The MAXREL type (Table 5) from the majority of the Orthodox countries is the closest to the type of high religiosity forecasted by the existential security theory (Inglehart and Norris, 2004). According to this, the most religious persons are those who confront with unemployment, poverty, lack of the properly conditions of life. As regards the capitals, it holds the lowest stock of educational and material capital among the other religious types, being exposed to the existential risks with a higher probability. It is about Bulgaria, Greece, Romania, Serbia and Belarus. The persons

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<sup>17</sup> Material capital was measured through monthly income of the household, educational capital through last graduated school and social capital through answer to the question *Do most people try to take advantage of you or are fair with you?* The necessary variables were rescaled. For education the categories used were: minimum education (primary school and unfinished gymnasium), low education (gymnasium, apprentice school, unfinished high school), medium education (high school, vocational school, college) and high education (university degrees). The material capital was rescaled through the category: very low (less than 150 €), low (150 € - 500 €), medium (500 €-1000€), high (1000 €- 2000 €) and very high (more than 2000 €).

which belong to this type have also a lower trust in the others. Russia is again an exception to this rule. Here, the persons with the most elements of maximum religiosity are more educated and have significant higher incomes than the average. Ukraine follows the same path of non-confirmation of the existential security theory, but only related to education. The most religious persons are more educated than the average, so they are less predisposed to the existential risks. As regards the social capital, the trust in others of the persons belonging to this type is significant lower than the average in Belarus, Bulgaria, Romania and Greece, in the other countries being slightly above the average.

With reference to the average of capitals at national level, the MINREL (Table 7) type is placed at an insignificant distance in Belarus and Bulgaria on the three analysed dimensions and on income-education dimensions in Serbia and income-trust in Ukraine. As expected, in Russia the situation is reversed, meaning the stock of educational and material capital is located significant below the average. The differentiation on the three dimensions is made in Greece and Romania, the persons which are included in this type being more educated, with incomes and interpersonal trust which are higher than the national average.

The persons which, within the religious capital, have the most elements of non-religiosity have education, trust and incomes higher in Greece and Serbia, the existential security theory being confirmed again (Table 8). As expected, in Russia there is another exception, meaning the lower trust than the average in case of NONREL type persons. In Romania and Ukraine, this type may be assimilated with the average type of religiosity on the three analysed dimensions, in the other countries being different on one or two dimensions.

As a result, there is a slight differentiation on the line of individual capital by reference to the average in Belarus, Bulgaria and Ukraine. The best structured on this analysis direction are the religious types from Greece, followed by Romania.

On this second analysis direction, the one of differentiation related to the material, educational and social capital, we noticed that explaining the differentiation with reference to the existential security theory is not always possible. According to this, the movement from MAXREL to MIXTREL, MINREL and NONREL type (meaning the increase of the elements of minimum religiosity and non-religiosity) should be accompanied by an increase above average of the educational and material capital. This situation does not appear in all the religious fields and types. In Bulgaria, Ukraine and Belarus, the movement from MAXREL to NONREL type is associated with keeping the educational and material capitals at an average level. The only country in which it is entirely confirmed is Greece. It is followed by Serbia where MIXTREL and MINREL types are closer to the average, but the NONREL type is positively differentiated by them. The situation in Russia totally invalidates this explanation of religiosity. The MAXREL type representing the most religious group of the country is characterized by an above the average level of material and educational capital. In addition, the MINREL type (meaning a massive decrease of the maximum religiosity elements) is characterized by educational and material capitals which are significantly below the average. The situation of Russia is similar with that of Romania where

NONREL type is not differentiated from the average, being characterized by the same values as MIXTREL type, being more religious than it.

## 4. Conclusions

On the individual dimension of the analysis, by using data offered by EVS 2008, the main conclusion is that the European Orthodox religious space as a whole is heterogeneous. It is about an inter-spatial heterogeneity (at the level of the religious spaces specific to the analysed countries) and an intra-spatial heterogeneity (at the level of the national religious space). This heterogeneity is established by the variation of the religious capital and other types of capital (educational, material and social) at individual level. It can be found in the four major types of religiosity which represent a combination of elements of maximum, minimum religiosity and non-religiosity. These types have a different visibility in the analysed religious spaces, for each space, a representative type could be identified or they are disposed in a homogenous structure. Each identified religious type has its own configuration of religiosity which leads to an individual position with reference to a possible ideal type of religiosity which is common to the entire Orthodox space.

A new conclusion is that the existential security theory, used as an explanatory framework for an increased religiosity, does not prove its explanatory power from the relational perspective proposed by this study. On the individual dimension of the analysis, related to the entire orthodox space, we noticed that it is entirely confirmed only in case of Greece and Serbia in case of which the movement from MAXREL (with a maximum level of religiosity) to NONREL type (with a minimum type of religiosity) is related to an increase of the educational and material capital (these being indices which place the individual in a potential state of existential insecurity. As a result, because of this fluctuating and contextual association of maximum religiosity with factors which predispose the individual to existential risks creates the hypothesis of another theoretical model for explaining the orthodox religiosity.

## Bibliography

1. Briancianinov, I. (2008), *Sermons*. Bucharest, Sophia.
2. Inglehart, R and Norris, P. ( 2004). *Sacred and secular*, Cambridge, Cambridge University Press.
3. Voicu, M. (2007), *Religious Romanian*. Iași, Institutul European.
4. *Holly Bible*. (1988). Bucharest, IBMBOR.

## Appendix

Table 1. The religious capital of MAXREL.

	<b>Maximum religiosity</b>	<b>Minimum religiosity</b>	<b>Non-religiosity</b>
<b>GRECIA</b>	7,7	3,6	0,6
<b>ROMANIA</b>	7,2	3,3	0,9

<b>UCRAINA</b>	6,8	3,4	1,1
<b>SERBIA</b>	6,6	3,5	1,5
<b>RUSIA</b>	6,4	3,4	1,3
<b>BELARUS</b>	6,1	4,6	0,9
<b>BULGARIA</b>	5,9	4,4	1,1

Table 2. The religious capital of MIXTREL.

	<b>Maximum religiosity</b>	<b>Minimum religiosity</b>	<b>Non-religiosity</b>
<b>GRECIA</b>	4,9	6,0	1,0
<b>ROMANIA</b>	4,5	5,9	1,0
<b>UCRAINA</b>	3,9	6,0	1,3
<b>RUSIA</b>	3,7	5,9	1,4
<b>SERBIA</b>	3,6	6,4	1,5
<b>BELARUS</b>	2,4	6,9	2,1
<b>BULGARIA</b>	2,0	6,8	2,5

Table 3. The religious capital of MINREL.

	<b>Maximum religiosity</b>	<b>Minimum religiosity</b>	<b>Non-religiosity</b>
<b>RUSIA</b>	1,3	8,0	2,0
<b>UCRAINA</b>	1,4	8,1	2,0
<b>GRECIA</b>	2,1	8,4	1,3
<b>ROMANIA</b>	1,6	8,9	1,2
<b>SERBIA</b>	1,2	9,0	1,4
<b>BULGARIA</b>	1,0	9,1	1,4
<b>BELARUS</b>	0,8	9,2	1,7

Table 4. The religious capital of NONREL.

	<b>Maximum religiosity</b>	<b>Minimum religiosity</b>	<b>Non-religiosity</b>
<b>ROMANIA</b>	2,2	5,0	3,5
<b>UCRAINA</b>	1,9	4,7	4,3
<b>RUSIA</b>	1,5	4,8	4,6
<b>GRECIA</b>	1,4	5,4	4,9
<b>SERBIA</b>	1,7	4,8	4,9
<b>BELARUS</b>	1,3	4,3	5,5

<b>BULGARIA</b>	1,3	3,9	5,6
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Table 5. The individual capitals of MAXREL.

<b>MAXREL</b>	<b>Belarus</b>	<b>Bulgaria</b>	<b>Grecia</b>	<b>Romania</b>
<b>education</b>	2,0	1,6	1,4	1,6
<b>income</b>	2,2	1,9	4,2	2,4
<b>trust</b>	5,9	4,4	3,9	4,3
<b>MAXREL</b>	<b>Rusia</b>	<b>Serbia</b>	<b>Ucraina</b>	
<b>education</b>	2,3	1,8	2,2	
<b>income</b>	2,9	2,6	2,2	
<b>trust</b>	6,8	5,4	5,9	

Table 6. The individual capitals of MIXTREL.

<b>MIXTREL</b>	<b>Belarus</b>	<b>Bulgaria</b>	<b>Grecia</b>	<b>Romania</b>
<b>education</b>	2,1	2,0	1,7	1,8
<b>income</b>	2,5	2,4	4,4	2,8
<b>trust</b>	5,4	4,9	3,8	4,4
<b>MIXTREL</b>	<b>Rusia</b>	<b>Serbia</b>	<b>Ucraina</b>	
<b>education</b>	2,1	1,9	2,3	
<b>income</b>	2,6	2,7	2,2	
<b>trust</b>	6,8	4,6	6,2	

Table 7. The individual capitals of MINREL.

<b>MINREL</b>	<b>Belarus</b>	<b>Bulgaria</b>	<b>Grecia</b>	<b>Romania</b>
<b>education</b>	2,3	2,1	2,0	2,0
<b>income</b>	2,6	2,5	4,7	3,2
<b>trust</b>	5,4	4,8	4,4	4,8
<b>MINREL</b>	<b>Rusia</b>	<b>Serbia</b>	<b>Ucraina</b>	
<b>education</b>	1,8	1,9	2,5	
<b>income</b>	2,2	2,9	2,3	
<b>trust</b>	6,6	5,3	5,9	

Table 8. The individual capitals of NONREL.

<b>NONREL</b>	<b>Belarus</b>	<b>Bulgaria</b>	<b>Grecia</b>	<b>Romania</b>
<b>education</b>	2,3	2,1	2,3	1,8

<b>income</b>	2,7	2,6	4,7	2,9
<b>trust</b>	5,1	4,8	4,4	4,4
<b>NONREL</b>	<b>Rusia</b>	<b>Serbia</b>	<b>Ucraina</b>	
<b>education</b>	2,2	2,1	2,3	
<b>income</b>	2,8	3,2	2,4	
<b>trust</b>	6,4	5,0	5,9	

Table 9. The frequency of the religious types in the Orthodox space.

	<b>MAXREL</b>	<b>MINREL</b>	<b>MIXTREL</b>	<b>NONREL</b>
<b>Serbia</b>	<b>10%</b>	<b>32%</b>	<b>40%</b>	<b>18%</b>
<b>Bulgaria</b>	<b>12%</b>	<b>24%</b>	<b>42%</b>	<b>23%</b>
<b>Belarus</b>	<b>17%</b>	<b>29%</b>	<b>36%</b>	<b>18%</b>
<b>Rusia</b>	<b>17%</b>	<b>27%</b>	<b>30%</b>	<b>26%</b>
<b>Grecia</b>	<b>20%</b>	<b>39%</b>	<b>31%</b>	<b>11%</b>
<b>Romania</b>	<b>26%</b>	<b>23%</b>	<b>39%</b>	<b>12%</b>
<b>Ucraina</b>	<b>26%</b>	<b>25%</b>	<b>32%</b>	<b>18%</b>

# The Role of Numeracy in Probabilistic Reasoning

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## Abstract

**Aim:** It is well established that statistical information presented in frequency formats (e.g. 6 out of 10) is more easily comprehended and processed than information presented in a probabilistic format (e.g. 60%), though individual differences in numeracy have been found to modulate these effects. Inconsistent results have been found, however, in the direction of this interaction, with frequency formats sometimes benefiting those higher in numeracy (Chapman & Liu 2009) and at other times impacting performance more for the less numerate (Peters et al. 2006). The primary objective of the current investigation was to evaluate these reported discrepancies with Bayesian reasoning tasks (requiring the integration of prior and conditional probabilities) which differed in difficulty, and a standard assessment of numeracy (the Lipkus et al. 2001 numeracy scale). **Method:** Each participant completed two Bayesian problems (one with a frequency format, the other with probabilities), and performance on the Numeracy Scale was used to separate high and low numeracy groups. **Findings:** Results of two studies showed that the impact of numeracy on statistical format presentation shifted as a function of problem difficulty. On difficult reasoning

problems, a frequency format facilitated performance more for those higher in numeracy, while on easier Bayesian problems it was the lower numerate who were more affected by the format of statistical information. Chi-squared tests confirmed these results. Our findings additionally suggest that in a Bayesian context, the Numeracy Scale indexes necessary (but not sufficient) competencies for reasoning with probability information, and sufficient (but not necessary) abilities for reasoning with frequency formats.

**Keywords:** numeracy, Bayesian reasoning, statistical format, individual differences

## 1. The Role of Numeracy in Probabilistic Reasoning

Numerical ability, including an understanding of probabilistic information, is essential for success in school and in the job market, as well as for making good health and financial decisions. In recent years, the term *numeracy* has taken on an operational definition in terms of the 11-item Lipkus et al. (2001) numeracy scale (henceforth, *Numeracy Scale*), which tests competence in understanding and transforming basic statistical information expressed in different numerical formats. It has long been known that presenting statistical information in a frequency format (e.g. 20 out of 100) often facilitates comprehension and performance over probabilistic formats (e.g. 20%),

on a variety of judgment and reasoning tasks (Tversky & Kahneman 1983), though

the universality of this finding has been questioned.

Recent evidence indicates that individual levels of numeracy modulate the effects of numerical presentation format, however, inconsistent results have been found in the direction of this interaction. For example, Peters and colleagues (2006) showed in a judgment and decision making context that statistical notation had *less* effect on the highly numerate, who gave similar answers with both frequency and probability formats. In contrast, Chapman and Liu (2009) found on two Bayesian reasoning scenarios (i.e. problems which require the integration of prior and conditional probability information), that a frequency format had significantly *more* facilitating effect for those higher in numeracy who, along with their less numerate counterparts, were at near floor performance with probability information. The primary objective of the current study was to evaluate these reported discrepancies between individual differences in numeracy and the impact of statistical formats.

Our point of departure was the observed floor effect on probability versions of the Bayesian scenarios used by Chapman and Liu (2009). While frequency versions clearly showed increased facilitation for the higher over lower numerate, the near-zero performance with probabilities provides little clue as to differences between numeracy level and reasoning ability on these problems. As the Numeracy Scale specifically measures the ability to work with abstract statistical data, it was hypothesized that sufficiently raising performance above the previously limiting floor could reveal a

distinct change in the pattern of numeracy-format interaction, with the predicted direction being closer to that observed by Peters et al. (2006).

In order to assess this possibility, two studies evaluated the effect of numeracy on similarly structured Bayesian reasoning problems of varying difficulty. It has been shown that probabilities expressing more common events are easier than those expressing rarer events (Mellers and McGraw 1995). In the first study, we therefore used analogously structured problems to those used by Chapman and Liu but with more common numerical partitions. The second study used adaptations of the similarly structured Gemstone problem, on which previous studies have demonstrated much higher global performance (Yamagishi 2003, Gracia et al. 2010). This makes these problems particularly suitable to our goal of substantially raising performance on the probabilistic versions, and henceforth revealing more informative relations between numeracy and numerical format presentation.

## 2. Study 1

### 2.1 Method and Materials

Forty-nine students from the University of Barcelona ( $M_{\text{age}} = 21.5$  years) gave their written consent and completed the Numeracy Scale and two Bayesian reasoning problems similar to the following (one frequency and the other probability; translated into Catalan):

#### Frequency Version:

A screening test is being studied to detect the presence of a new virus. The test is not perfect, however, as can be seen in the following data:

20 of every 100 people who participated in the study were infected with the virus. Only 16 of the 20 infected people had a positive reaction to the test. However, of the 80 people not infected, 24 also had a positive reaction to the test.

Imagine that the test is administered to a new group of 100 people with similar characteristics as the study above. Among those who have a positive reaction to the test, how many of them will actually be infected? \_\_\_\_ out of \_\_\_\_

#### Probability Version:

A screening test is being studied to detect the presence of a new virus. The test is not perfect, however, as can be seen in the following data:

20% of the people who participated in the study were infected with the virus. Among those with the infection, only 80% had a positive reaction to the test. However, among those people without the infection, 30% also had a positive reaction to the test.

Imagine that the test is administered to a new group of people with similar characteristics as the study above. Among those who have a positive reaction to the test, what is the probability that a given person, selected at random, will be infected?

\_\_\_\_%

In order to create counterbalance conditions, an analogous second problem was also used with slightly different content and numerical data. In this problem, a base rate of 10% (instead of 20% above), and conditional probabilities of 60% and 20% (instead of 80% and 30%) were used. All measures were taken to make other features of the problems as similar as possible.

## 2.2 Results and Discussion

The mean numeracy score in this study was 8.47 (median = 9, range = 4-11, SD = 1.86). To study the effects of numeracy we focused analysis on participants scoring above the median (high numeracy: >9 questions correct) and below the median (low numeracy: <9 questions correct). Nine participants with a median score of 9 items correct were subsequently removed from further analysis, resulting in 18 participants classified as high numerate and 22 as low numerate.

Global findings regarding the statistical format effect were in line with previous studies, and therefore results of the two problems were collapsed to study individual differences. Table 1 shows the percentages of correct responses for high and low numerate participants given frequency and probability formats, along with significance values for each group. As can be seen, the effect of numeracy on the frequency versions was highly significant. On the other hand, the globally low number of correct responses prevented group differences in the probability format from reaching significance. It follows that a natural frequency format increased performance substantially more for those higher in numeracy relative to lower numerate counterparts (see Figure 1, solid lines). Accordingly, results confirm the findings of Chapman and Liu (2009) that the highly numerate were more affected by the presentation format of statistical information than were lower numerate participants.

Table 1. Percentage of correct responses by numeracy in Studies 1 and 2.

	Study 1		Study 2	
	Frequency	Probability	Frequency	Probability
High Numerate	67%	17%	96%	39%
Low Numerate	23%	0%	80%	7%
$\chi^2(1)$	7.821	3.964	2.362	4.934
p value	.005	.083 <sup>1</sup>	.28 <sup>1</sup>	.056 <sup>1</sup>

<sup>1</sup>Fisher's Exact Test, 2-sided

*Note.* Where counts were less than 5, a Fisher's Exact Test was used.

### 3. Study 2

One goal of the first study was to simplify numerical calculations on problems otherwise structurally analogous to those used by Chapman and Liu (2009). Although we successfully raised probability performance for some high-numerate participants, the floor effect remained with probability formats for the majority of them, as well as for all lower numerate participants. The possibility remains, therefore, that the continued difficulty of these problems is masking a possible explanation for previously reported discrepancies between individual numeracy and the effect of numerical format.

#### 3.1 Method and Materials

Forty-nine different students from the University of Barcelona ( $M_{\text{age}} = 21$  years) gave their written consent and successfully completed the Numeracy Scale and two Bayesian tasks (one in a frequency format and the other with probabilities; translated into Catalan) similar to the following:

##### Frequency Version:

A factory manufactures 1200 artificial gemstones daily. Among the 1200, 400 gemstones are perfect, 400 are blurred, and 400 are cracked. An inspection machine removes all of the cracked gemstones, and accepts all of the perfect gemstones. However, the machine also accepts half of the blurred gemstones.

Among the gemstones accepted by the inspection machine, how many of them are blurred? \_\_\_\_ out of \_\_\_\_

##### Probability Version:

A factory manufactures artificial gemstones daily. Among them,  $\frac{1}{3}$  of the gemstones are perfect,  $\frac{1}{3}$  are blurred, and  $\frac{1}{3}$  are cracked. An inspection machine removes all of the cracked gemstones, and accepts all of the perfect gemstones. However, the machine also accepts half of the blurred gemstones.

Among the gemstones accepted by the inspection machine, what is the probability that a given gemstone, selected at random, is blurred? \_\_\_\_\_

As in the previous study, an analogous second problem was also used to create counterbalance conditions. In this problem, initial partitions were  $\frac{1}{4}$ ,  $\frac{1}{4}$ , and  $\frac{1}{2}$  (instead of  $\frac{1}{3}$ ,  $\frac{1}{3}$ ,  $\frac{1}{3}$ ). All measures were taken to make other features of the problems as similar as possible.

#### 3.2 Results and Discussion

The mean numeracy score was 8.88 (median = 9, range = 4-11, SD = 1.79), just slightly higher than in Study 1. As in the previous study, we eliminated participants with the median response and focused analysis on participants scoring above and

below the median. This resulted in eleven participants being removed from subsequent analysis. Of the remaining participants, 23 were classified as high numerate and 15 were grouped as low numerate.

In order to assess individual differences, results of the two Bayesian problems were collapsed. As expected, performance was substantially higher on these easier problems (see Table 1). Commensurate with Study 1, higher numerate participants consistently outperformed those lower in numeracy in both formats. Interestingly, a significant interaction between numeracy and statistical format was observed, but in the opposite direction as the previous study: The presentation of frequencies failed to reveal a significant effect of numeracy due to near ceiling performance, while the effect of numeracy was significant with the more difficult probability formats (see Figure 1, dashed lines). These results contrast with Study 1, and are more in line with previous studies showing numerical format to have more impact on lower relative to higher numerate individuals (e.g. Peters et al. 2006; see also Tubau 2008).

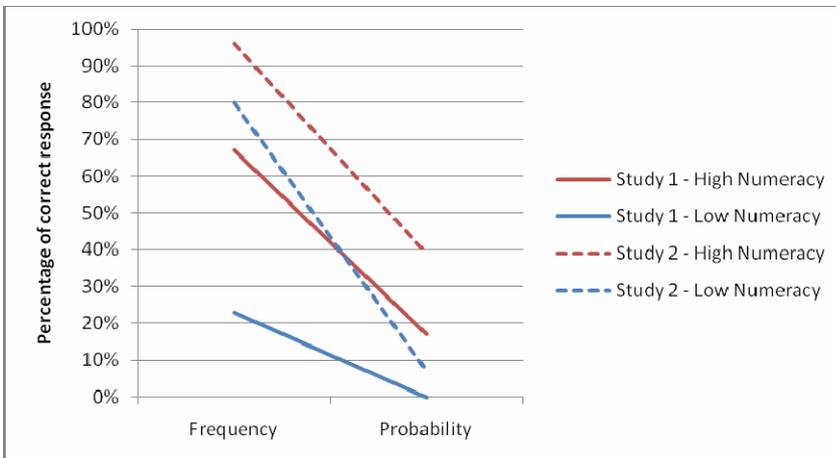


Figure 1. Percentage of correct response for high- (red) and low- (blue) numerate participants on frequency and probability versions of the Bayesian tasks in Study 1 (solid line) and Study 2 (dashed line).

Figure 1 illustrates the results of the two studies plotted separately for each numeracy group, revealing clearly different patterns (blue vs. red lines). In addition to the general facilitatory effect of frequency over probability formats, statistical format effects vary according to the numeracy level and the particular structure of the presented problem being reasoned over. In particular, the effects of format seem to be constant for the higher numerate group across problems, while the structure of information appears to modulate the effects of numerical format in the case of lower numerate participants.

## 4. General Discussion

The primary objective of this study was to evaluate reported discrepancies between individual differences in numeracy and the effect of statistical formats. The difficult Bayesian tasks used in the first study replicated the results of Chapman and Liu (2009), showing that a frequency format significantly facilitated performance for participants higher compared to lower in numeracy. In contrast, the second study using easier Bayesian tasks displayed a reversal in this trend: While both groups performed near ceiling with frequency formats, the lower numerate were more affected (i.e. performed proportionally worse) with the presentation of probability formats than were the higher numerate.

In addition to this finding, our results also help to advance understanding of the general utility of the Numeracy Scale to probabilistic reasoning research. Numeracy clearly plays a role in Bayesian reasoning potential, though its predictive power varies with problem difficulty. On very easy problems using natural frequencies (i.e. the frequency versions in Study 2), the Numeracy Scale is nearly non-discriminatory, indicating that the skills required for successful reasoning are different than those indexed by the Numeracy Scale. On very difficult problems using single-event probabilities (i.e. the probability versions in Study 1), the Numeracy Scale also fails to capture the skills needed for successful reasoning. Although it is true that only high numerate individuals solved these problems, most of them (71%) were unable to do so. Moving in from the extremes towards problems of more intermediate difficulty, the predictive value of the Numeracy Scale is more apparent. On the more difficult versions of easier problems (i.e. the probability versions in Study 2), we do see a separation in the performance between the two numeracy groups. On the easier versions of the more difficult problems (i.e. the frequency versions in Study 1), this separation is even more pronounced. A final noteworthy observation was that 100% (13/13) of participants scoring a perfect-11 on the numeracy scale correctly solved their respective frequency versions, while only 38% (5/13) were correct with a probability format. In summary, high numeracy seems to be necessary (but not sufficient) for solving the abstract probability versions, and it seems to be sufficient (but not necessary) for solving concrete frequency problems.

Although these findings importantly reveal a differential effect of information presentation—both numerical format and problem structure—on high and low numerate individuals, several differences between our problem sets limit the interpretation of these results. Some of these differences include initial partitive structure (2 vs. 3 categories), problem content (people vs. inanimate objects), probabilistic format (percents vs. fractions), direction of reasoning (prospective vs. retrospective), and simply the length of the word problem (longer vs. shorter), in Studies (1 vs. 2), respectively. While these are important differences that should be controlled in future studies, they do not affect the implications of the present results showing different relations of the statistical format and the problem structure for high-compared to low-numerate individuals.

Studies of probabilistic reasoning to date have primarily debated the reason that frequency formats and structural modifications are facilitatory, with ecological

considerations, computational limitations, and clear representations of problem structure being the most commonly invoked explanations (see Barbey & Sloman 2007). More recent studies have demonstrated that individual levels of numeracy also play a role in this relationship, though in a direction contrary to early findings in judgment and decision making. The present results further build on these previous findings by demonstrating that these apparent discrepancies arose partly from a floor effect masking the real impact of the numeracy-format intersection, and have additionally revealed limits on the explanatory range of the Numeracy Scale in probabilistic reasoning.

## References

1. Barbey, A. K. & Sloman, S. A. (2007). Base-rate respect: From statistical formats to cognitive structures. *Behavioral and Brain Sciences*, 30, 287-298.
2. Chapman, G. & Liu, J. (2009). Numeracy, frequency, and Bayesian reasoning. *Judgment and Decision Making*, 4(1), 34-40.
3. Gracia-Bafalluy, M., Tubau, E., Colomé, A., & Núñez-Peña, M.I. (2010). Individual Differences in Numerical Skills and Probabilistic Reasoning. Poster presented at the 1<sup>st</sup> Joint conference of the Experimental Psychology Society and the Spanish Experimental Psychological Society, Granada.
4. Lipkus, I. M., Samsa, G., & Rimer, B. K. (2001). General performance on a numeracy scale among highly educated samples. *Medical Decision Making*, 21, 37-44.
5. Mellers, B. A., & McGraw, A. P. (1999). How to improve Bayesian reasoning without instruction: Comment on Gigerenzer and Hoffrage. *Psychological Review*, 106, 417-424.
6. Peters, E., D. Vastfjall, P. Slovic, C.K. Mertz, K. Mazzocco, & S. Dickert (2006). Numeracy and Decision Making. *Psychological Science*, 17(5), 407-413.
7. Tubau, E. (2008). Enhancing probabilistic reasoning: The role of causal graphs, statistical format and numerical skills. *Learning and Individual Differences*, 18, 187-196.
8. Tversky, A., & Kahneman, D. (1983). Extensional vs. intuitive reasoning: The conjunction fallacy in probability judgment. *Psychological Review*, 90, 293-315.
9. Yamagishi, K. (2003). Facilitating Normative Judgments of Conditional Probability: Frequency or Nested Sets? *Experimental Psychology*, 50(2): 97-106.

## Appendices

For appendices please follow the link below:

[https://docs.google.com/viewer?a=v&pid=explorer&chrome=true&srcid=0B-UrWZDf5WkBOGIxNjBjYzEtZjliZS00OGI0LTk4MTEtYzI4MTgxZDIOTFl&hl=en\\_GB&authkey=Clil-eMM](https://docs.google.com/viewer?a=v&pid=explorer&chrome=true&srcid=0B-UrWZDf5WkBOGIxNjBjYzEtZjliZS00OGI0LTk4MTEtYzI4MTgxZDIOTFl&hl=en_GB&authkey=Clil-eMM)

# Knowledge of language and risk-taking

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Language is at the base of humankind; through it we distinguished ourselves from the animals, briefly told: it's our most important tool! It is in a continuous process of multidimensional transformation and we are indebted and responsible to study, to investigate its changes and to find solutions for improvement. It is a vast topic and even if it was discussed and studied for so many times, there are still so many problems and conversational misunderstandings. Because there are different approaches and they must be revised all the time, I want to clarify once again the link between language and culture- in the first two sections, then in the third section I will present the language features. The fourth section is about risks in conversation and means of solving and the sixth section contains as normally, the conclusions by which it's pointed out that we must continue to study language because: "theories and models of language – like those of any other phenomenon such as the weather, the economy, or the nature of the galaxy- will constantly need to be revised whenever more data come to light" (Graddol 1994: 1). The language depends on each person, religion, experience, history, social status, society in which he or she lives and my aim is to offer practical information and advice regarding language use and that each reader will have further interest in this area and will continue to learn about languages.

**Key-words:** language expansion, culture, language features, language functions, risk

## 1. Introduction

*"People in a group are often unconsciously guided by their culture in their behavior and in their view of the world" David Pinto*

Reading the quotation written above, we are encouraged to read, to learn, to work and that we should continue to climb up "the mountain". We can be easily "rich" regarding our knowledge and nowadays even more, because by using Internet, we can easily visit the UK, or other countries, we can follow news, big events and lifestyle changes without having to travel anywhere. "There is a huge bank of educational material «at our fingerprints»" (Steps to success, BC: 84)

## 2. Definitions of language

The knowledge of language won't be finite and fixed for ever, but in a constant change and modification as Milroy pointed out: "language is a complex network of variants in constant flux" and it carries social values.<sup>18</sup>

Graddol (1994: 13) specified 3 components of language: sound, grammar and meaning. Thus, it is distinguished: **phonetics**, the study of the sounds produced by speakers and **phonology**, the more abstract study of the sound system of a language; **morphology** (word structure) and **syntax** (sentence structure).

As it also can be found in Graddol (1994), some people want to learn more about how language works in order to have better control over it themselves; or, they would realize better how powerful groups (such as advertisers, politicians and employers) try to persuade them to do things which are against their interests (Graddol 1994: 2).

Language is seen as: "a living, practical skill which enables us to communicate" (Steps to success, BC: 2) or "highly organized and encoded system which employs many devices to express, indicate, exchange messages and information, represent and so forth" (Said 1991:21). Both definitions underline the fact that language can develop, evolve, progress, decay, act or simply: "it's magical" because it can control objects, people or spirits (Crystal 1997: 8).

The discipline of linguistics is often described as "the science of language" and an important feature is its focus on **verbal communication**. But there is a systematic ambiguity because the word "language" can refer to the general human capacity for verbal communication or it can refer to specific forms of language. It has been estimated that there are about 4000 languages spoken in the world today and if we take into consideration the dialects, the number would be stunning. In the index of the world's languages prepared by Voegelin (1977) there are over 20000 entries and for this reason the term **language variety** is often used by linguists where such questions of status can be avoided (Graddol 1994: 4-5).

By the definitions of language pointed out by some important scholars, written below, I want to demonstrate the fact that no matter how much the society evolves, there will always be new words, new strategies for communication and ways of improvement.

"Language is a purely human and non-instinctive method of communicating ideas, emotions and desires by means of voluntarily produced symbols." (E.Sapir, 1921.)

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<sup>18</sup> see p. 153-168 from *Language and Understanding*, by G. Brown, K. Malmkjær, A. Pollitt and J. Williams (eds), Oxford University Press, 1994

“A language is a system of arbitrary vocal symbols by means of which the members of society interact in terms of their total culture.”  
(G. Trage, 1949.)

“A language is a set (finite or infinite) of sentences, each finite in length and constructed out of a finite set of elements.”  
(A.N.Chomsky, 1957.)

Language is “the institution whereby humans communicate and interact with each other by means of habitually used oral-auditory arbitrary symbols”(R.A.Hall, 1964).<sup>19</sup>

My purpose in this section was to underline the fact that no matter how much you try to have the best job, to be the best manager, to be appreciated by the others, (because we must be honest and recognize that everyone likes to be praised and respected), at the base there is still the study of language because as Trask (1999) said so beautifully: “nothing is more interesting, more stimulating or more rewarding than the study of language”!

### **3. Definitions of culture**

The culture is made by people and is transmitted from generation to generation. Our cultural values are the most important part because due to them we can meet other people, we can evolve, we can have new and new ideas and aspirations, we can maintain ourselves “at the surface of the water”, thus saving us from drowning and helping us to face the hardships of life.

A solution for having access to new, interesting and different cultures is: learning a second language. In the case of English, it gives let’s say –“a wide range of gates”.

Culture is an area much discussed; the teachers and authors from British Council stated that:

“Culture is a big word. In language teaching terms we are talking about the study of customs, way of life and products such as literature and music, people’s values and beliefs. It includes what people eat for breakfast, their favorite sport, their heroes, their literature and their system of government, among other things. When we learn a second language we sometimes like to study a little about traditions and history of a country. The study of the “culture” of the country whose language we are learning should enhance our study of the language. It is sometimes seen as the “extra” to learning the language, but in fact it’s hard to really learn a language to a high level without some understanding of the culture.” (Steps to success, BC: 74)

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<sup>19</sup> cited from Crystal 1997:400

We could also say that by “a rich luggage” of culture we could solve a lot of daily problems, because it is a shared system of meanings (Schein 1985). It dictates what we pay attention to, how we act and what we value (Trompenaars 1993: 13).

The layers of culture which help us to revise our own “possessions”, stated also by Trompenaars(1993) are:

**a) The outer layer:** explicit products

Explicit culture is the observable reality of the language, food, buildings, houses, monuments, agriculture, shrines, markets, fashions and art

**b) The middle layer:** norms and values

Norms are the mutual sense a group has of what is “right” and “wrong”. Norms can develop on a formal level as written laws, and on an informal level as social control. Values determine the definition of “good and bad” and are therefore closely related to the ideals shared by a group

**c) The core:** assumptions about existence

To answer questions about basic differences in values between cultures it is necessary to go back to the core of human existence. The most basic value people strive for is survival.

(Trompenaars 1993: 22-23)

We must improve our general knowledge, to learn about different cultures of the world. How can we do this?

- by non-judgmental observation
- by taking further courses
- by study visits to English-speaking countries
- by taking up a new professional interest
- by learning a new skill or improving an old one

Only by practical skills we can meet the demands of the modern world and for having ability in a foreign language we must: use it, practice it and repeat it often.

Reading above, we can see what a strong link there is between language and culture, telling us one more time that languages are not separated by impenetrable boundaries and the culture has “the roots of action.”

## 4. Language features

One of the most important things in our life is human communication, although, sometimes, it can be very “risky”, as I will try to demonstrate in the following section. There are different issues, but the basic ones are: “how language contributes to our understanding of the world” and “how our beliefs about the world inform our understanding of language” (Brown 1994: 1). That’s why it must be studied the various aspects of language, because it means not only texts, grammar, vocabulary, but also a vehicle of communication. The authors of *Language and Understanding* (1994) also said that language can be discussed at different levels: of sounds, word-formation, sentence-formation and discourse structure, and each of these levels has a “special” meaning. What about meaning? It depends again of attention, of concentration, it has many facades or, as de Saussure wrote: it is “negotiated between participants in an interaction”<sup>20</sup>

Each person is unique and adopts different ways of development. But the best development is in an atmosphere full of positive suggestions and free from negative ones; that’s why I considered it’s necessary to go further and to mention the language functions, which are very important and can be discussed from three different perspectives:

a) **syntactic perspective**, involves- treating the signs independent of their meaning, only in terms of rules by which they can be combined;

b) **semantic perspective**, the emphasis is on the meaning of signs.

c) **pragmatic perspective**, linked to the use of signs.

**a. Informative-descriptive function:** through words, we exercise and externalize information - we present properties of different objects, we describe situations, etc.

**b. Communication function:** language is the instrument through which the thoughts and the moods raised in the mind of the subject are also experienced by someone else.

**c. Expressive function:** the utterances in which this function appears do not necessarily communicate only information but also moods and beliefs of who produce them.

**d. Directional-regulatory function:** the utterances, which we formulate has as a priority or solely the intention to direct our attention to an imminent event (e.g. to an accident about to happen), or to guide us, to make us to have a certain behavior.

**e. Protocol function:** has a great social value, because it represents a tool for cultivating the spirit of order in social life. It’s about statements made only on special occasions (important events in the life of the individual or in the social one), they are not formulated elsewhere and are part of the protocol that runs on the occasion of such events.

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<sup>20</sup> see p. 1-4 from *Language and Understanding*, by G. Brown, K. Malmkjær, A. Pollitt and J. Williams (eds), Oxford University Press, 1994

**f. Performative function:** is specific to those statements through which, the person who formulates them takes the engagement or announces that wants to achieve a certain result.

So, why language and communication? Because each of us yearn after friends, as many as possible, no matter how good we feel, how “fulfilled” we are. And how could we have friends and relationships for an entire life if we don’t know the means to maintain them, different techniques which appeal to our consciousness, to study where we are wrong or right. Eventually the Social Intelligence<sup>21</sup> is a fact that must be studied, because it really has power.

## 5. Risks and means of solving

The risk is an active component of our life. So, I thought that it’s appropriate to include this subject in my research because it is met in many domains and none the less there is the need of interdisciplinary.

The risk is found in every person’s life beginning with his birth, then with school, with a job, marriage continuing to be present until his death. As we try to administrate our life in order to avoid the risks and to have a peaceful life, with many achievements, in the same way , the risk’s management plays an important role in a business’ or institution’s leadership, in defining the opportunities from the point of view: risk-benefit and not only. But what relationship is between business/institution and language or linguistics’ domain? The answer is that language is at the base, from its use starts everything; it’s the most important instrument or ingredient we could say. With its help we succeed to make ourselves understood, in different situations: when we want to transmit something, when we “do” business, when we want to achieve something. Then, which would be the risks?

- we can’t make ourselves understood or we don’t understand the real meaning of an utterance because there is a diversity of interpretation
- we can’t express what we want
- we need to use a second language
- we don’t know the person with whom we talk, etc.

Some of the solutions would be: to be flexible, to be motivated, to know the grammar rules and the means of vocabulary enrichment and to check the personal beliefs, goals, ideas and desires.

In the language use, the identification and the analysis of risks should occupy an important part in its development, because as I said above, in other domains it is already considered an important thing: to know the risks’ history and to have a well planned analysis, so that to eliminate them or at least reduce them.

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<sup>21</sup> see Buzan, T. (2002) *The Power of Social Intelligence*. London, Thorsons.

And where is learned about language with its different aspects? The answer is: in schools. So more than anywhere the risk must be analyzed in the education system, for starting from the base, because the school creates the man from tomorrow and implicitly the society from tomorrow.

The risk management is the balance between the Arts and Science; it is a problem of balance between methods and people, between language and language use. The risk's definition has different variants encountered in literature, but adapting it at the language use, we could say that the risk is the threat that an "event" to affect the ability of a person to use the language correctly, to present the ideas, which he or she would wish to expose, to share.

The risks' identification and defining make an integrated part from the strategic planning of the person who will assure the necessary visibility and the strategic focalization. The strategic planning represents a "road map". It implies four fundamental stages: the evaluation of the historic performances, the fixation of precise objectives, the development of some action plans and the comparison of the actual performance with the planned one.

Therefore, the risks analysis and evaluation must be a continuous process, because the risks' control and their effects imply a complex category of activities. So taking into account the study of these "risks", it increases our awareness of the factors that impact on communication.

## **6. Conclusions**

Language is a field of discovery that never ends and for meeting the demands of the modern world we always will have to study and improve the communication skills. Maybe some of the issues or "obstacles" can't be solved immediately, because everything in this life is earned only with a lot of work, ambition and conscientiousness in order to be stable and resistant, isn't it? We need practice, strategies and techniques for knowing to tackle with different complexities of human communication.

As further development I'm aware of the fact that such a research should also contain explanations and aspects of context or discourse analysis, but unfortunately these will be next time. Meanwhile or until then we can only "ruminate" on the aspects discussed above and to try to come with new, better, useful and favorable ideas regarding the human language and its variation.

## **References**

1. Brown, Gillian *et al.* (eds) (1994) *Language and Understanding*. Oxford, Oxford University Press.
2. Buzan, T. (2002) *The Power of Social Intelligence*. London, Thorsons.
3. Cook, G. (1989) *Discourse*. Oxford, Oxford University Press.

4. Crystal, D. (1995) *The Cambridge Encyclopedia of the English Language*. Cambridge, Cambridge University Press.
5. Fasold, Ralph and Connor-Linton, Jeff (eds) (2006) *An Introduction to Language and Linguistics*. Cambridge, Cambridge University Press.
6. Graddol, David *et al.* (1994) *Describing Language*. Buckingham and Philadelphia, Open University Press.
7. Greene, Judith and Coulson, Mark (1995) *Language Understanding -Current Issues*. 2<sup>nd</sup> edition. Buckingham and Philadelphia, Open University Press.
8. Leather, S., *Steps to success*. British Council, available British Council sites.
9. Pinker, S. (1994) *The language Instinct -How the mind creates language*. New York, HarperCollins Publishers.
10. Robson, Mark and Stockwell, Peter (2005) *Language in Theory*. London and New York, Routledge.
11. Schein. E. (1985) *Organisational Culture and Leadership*. San Francisco, Jossey-Bass.
12. Smith, Neil and Wilson, Deirdre (1990) *Modern Linguistics -The Results of Chomsky's Revolution*. London, Penguin.
13. Trask, R. L. (1999) *Language:The Basics*. 2<sup>nd</sup> edition. London and New York, Routledge.
14. Trompenaars, F. (1993) *Riding the Waves of Culture- Understanding Cultural Diversity in Business*. London, Nicholas Brealey Publishing.

## Internet sources

15. Tony. (2006) *Logica- Functiile limbajului*. [online]. Available from: <http://tonysss.wordpress.com/2006/12/28/logica-functiile-imbajului/> [Accessed 20<sup>th</sup> 2011]

# The Impact of the Court of Justice on EU Environmental Policy

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## Abstract

This paper examines the activity (caseload) and judicial activism of the Court of Justice of the European Union, that is, their evolution over time, the main actors involved behind them and the convergence of the Court's rulings to the Commission's position. The essay begins with a review of the literature regarding the Court developed over the past twenty years. The review of prior research has been divided into two time periods. In the first one I focus on the arguments provided by integovernmentalists and neofunctionalists on the Court's sovereignty. In the second one I examine research on the demand and supply side of EU litigation. I argue that there is a lack of quantitative studies exploring the Court's judicial activism and its potential impact on policy. On the basis of the above, three hypotheses are examined. The first one suggests that both the activity of the Court and its judicial activism will increase over time as a result of private actor conflict increasing due to single market integration. The second one is that private actors are the main actors behind the Court's judicial activism. The third one maintains the Court is in agreement with the Commission as indicated in the neofunctionalist theory.

In order to test these three hypotheses, I created an original dataset based on all case rulings on waste policy from 1991 to 2009 (192 cases). The statistical analyses showed the following results: Firstly, the Court's activity and judicial activism have in fact increased over time. The main actors behind this increase of judicial activism are domestic players mainly Private Actors and Public Authorities, not the Commission, MS, or other supranational institutions. Finally, the Court's rulings support the Commission's position in more than 80% of the cases, suggesting that both institutions have a common perspective on the EU.

*Key words:* Court of Justice, environmental policy, european integration, neofunctionalism, european union

## 1. The Impact of the Court of Justice on EU Environmental Policy

The Court of Justice of the European Union (CJ) is one of the oldest institutions of the European Union (EU) created under the Treaty of Paris in 1952. Initially it was assigned the interpretation and application of legislation, but progressively increased its reach beyond its initial formal role (Alter, 1998). The theories examining the CJ can be divided into two periods both including two opposing perspectives. The first one includes intergovernmentalism and neofunctionalism, the second one includes demand side and supply side of litigation.

## ***1.1 First Period***

**Intergovernmentalism.** Intergovernmentalists argue that the Court acts within the space delegated to it by Member States (MS) on the basis of its own self interest (Garrett et al, 1998). To remain relevant it must uphold a legitimate position through fair rulings justified according to the legislation, and do so consistently (Stone Sweet, 2003). However, the Court has no implementation powers and rulings cannot be too harsh, since individual MS may rationally choose not to apply them, if implementation costs become higher than the penalty (Tallberg, 2002). This argument suggests that the Court will avoid challenging “stronger” MS because retaliation is more likely (Garrett et al, 1998).

**Neofunctionalism.** Neofunctionalists, argue that the Court has been able to push forward its own agenda, moving decision making to the supranational level (Alter, 1998; Garrett et al, 1998). They maintain that this has occurred incrementally, a result of information asymmetry between the MS (principal) and the Court (agent) (Tallberg, 2002). Cautious not to alarm the “principals” the Court has taken an apolitical stance, interpreting cases strictly under a rational European perspective and looking at the Commission for politically correct direction (Mattli and Slaughter, 1998). The probability of direct confrontation of the Court with MS becomes lower the more elusive the legislation is (Garrett et al, 1998; Alter, 1998).

## ***1.2 Second Period***

**Demand for litigation.** The demand side of legal integration is rooted in the idea of spill-overs (Alter, 2000). It gives more credibility to smaller actors and argues that the push towards legal integration comes as a result of three factors. Firstly, the interdependence of the European economy pulled in other sectors, including legislation, demanding a common platform as a way of reducing transaction costs in order to create an efficient single market. Secondly, the political values of MS and national parties have moved towards a common focal point affecting law. Thirdly, MS realizing that they have common policies upgraded some of them to the supranational level.

**Supply of litigation.** The supply side of legal integration suggests that the increase in litigation is the result of institutions trying to promote their agendas via the Court. The Commission’s overzealous legal creativity in the 1980s, especially in the area of environment (Chichowski, 1998), produced a bulk of legislation which MS have not

been able to fully transpose to this date. More interestingly, it has been argued that the rise of private litigation can be partly the product of a European Parliament (EP) strategy; it supports interests in taking legal routes (McCown, 2003). Furthermore, low level courts try to gain more power over their jurisdiction; preliminary rulings are a way of bypassing top level domestic courts and increasing their legitimacy and effect (Stone Sweet, 2003).

### ***1.3 Theoretical Gaps and Paper objective***

Examining the research surrounding the CJ leads to the following three observations. Firstly, there is an overrepresentation of qualitative studies to quantitative ones. The few quantitative analyses looking at the CJ carry out analyses that are not policy focused (Kilroy, 1999; Stone Sweet and Brunell, 1998; Pitarakis and Tridimas, 2003; Carrubba and Gabel, 2006). They either present inconclusive findings (Carrubba and Gabel, 2006), or provide results on general case law (Chichowski, 1998; Kilroy, 1999; Carruba and Gabel, 2006), or are not in line with current legislation (Stone Sweet and Brunell, 1998; Pittarakis and Tridimas, 2003; Tridimas and Tridimas 2004). Recent and policy-focused case law needs to be examined quantitatively for results to provide a more robust contemporary depiction of the CJ.

Secondly, the connection between the Court's activity and actors is taking into account a limited array of actors. Studies looking at aggregate cases focus mostly on supranational institutions (Kilroy, 1999; Stone Sweet and Brunell, 1998; Conant 2007) and national courts (Chichowski, 1998; Alter 2000; Stone Sweet and Brunell, 1998), but not on smaller actors. Thirdly, the relatively few empirical studies on the Court's activism have left out a broad confirmation of theories examining specific policy areas and actors.

On the basis of the above, this research paper takes on the following objectives. Firstly, I examine the Court's caseload and provide a quantitative depiction of its increase (or not) over time and the actors involved. Secondly I investigate quantitatively the increase (or not) of Court judicial activism over time comparing it to the overall caseload and the actors behind it. Thirdly, I examine and provide a quantitative depiction of the relationship between the Court and the Commission on case law, i.e. the extent to which they are "in agreement"

## **2. Method**

### ***2.1 Hypotheses***

The research agenda of this paper is operationalized via the following hypotheses.

#### **Hypothesis 1**

**Hypothesis 1a: The number of Court rulings increase over time.**

**Hypothesis 1b: The ratio of active rulings to total rulings will increase over time.**

**Hypothesis 1c: The ratio of preliminary rulings to total rulings will increase over time.**

The total number of cases can increase if preliminary rulings and/ or Other rulings increase over time. I expect preliminary rulings to increase for the following reasons: First, the increase in EU integration and intra-EU trade has increased clashes among EU actors pushing upwards demand for litigation (Stone Sweet and Brunell, 1998; Pitarakis and Tridimas, 2003). Second, EU environmental legislation covers 80% of national environmental law (Bandi et al, 2008) has extended the Court's field of activity at the domestic level. Third, as smaller actors progressively gain more knowledge on EU legislation they are increasingly making use of courts as veto points or to impact policy (Tsebelis et al, 2001), preliminary and other rulings increase. Fourth, the Commission gradually allows more private actors to deal with regulation and transposition, thus, increasing the number of preliminary rulings (Craig, 2001). Fifth, preliminary rulings might be increasing artificially as low level courts try to increase their power domestically bypassing higher courts via preliminary rulings (Alter, 2000).

The increase of preliminary rulings should result in an increase of the number of active rulings; the Court is asked to clarify the law, therefore the probability of an active ruling increases accordingly.

The increase of Other rulings can be justified on the following. The expansion of EU legislation part of which is recent implies that MS have not had enough time to transpose it correctly. In addition, the increase of MS means that the Commission needs to regulate a larger legal area over more actors (Craig, 2001).

**Hypothesis 2: The odds of an active ruling will differ across actors involved as litigants.**

I anticipate that private actors will be often involved in cases with active rulings for the following reasons: First, as the EU moves closer to a single market and different industries from MS become more interdependent (Burley and Mattli, 1993) the increase in intra-EU trade and resulting conflicts become more complex. There is a high probability that preliminary rulings on such issues will be active.

Second, private actors and organizations use private litigation in order to promote their interests and to have an impact on policy or as a veto point (Tsebelis et al, 2001). This kind of litigation also leads to preliminary rulings for which the probability of being active is high.

I also expect public authorities to be often involved in cases with active rulings. Firstly, local authorities may use the Court in order to block national plans which are opposed to their interests (Tsebelis et al, 2001). Secondly, local regions might be asking for clarification on unclear directive definitions. Finally, public authorities in countries with advanced environmental standards attempt to change poor EU waste policy through the Court (Stone Sweet, 2003).

The interest of the Commission in active rulings, in the sense of sending to Court cases where an active ruling is expected, is a moot point. On the one hand, the Commission will be interested in cases with active rulings in order to better promote its agenda (Alter, 2000). On the other hand, the Commission due to limited resources is not willing to spend on cases with unsure results (Majone, 1996).

**Hypothesis 3: The Court is more likely to agree with the Commission’s position.**

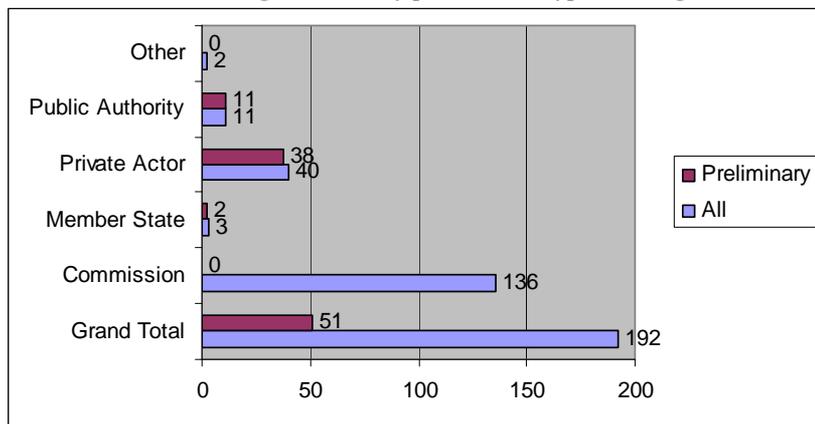
This hypothesis is based on the assumption that the Court has to maintain institutional legitimacy making it harder for MS to retaliate, or make it obsolete (Carrubba and Gabel, 2006). Since the Court relies on the Commission for political cover, it is more interested in the Commission’s opinion for cases which bear a higher cost/ risk. Thus, it is likely that an alliance will be formed especially when cases can have an impact on policy areas.

**2.2 Data requirements – Characteristics of the data set**

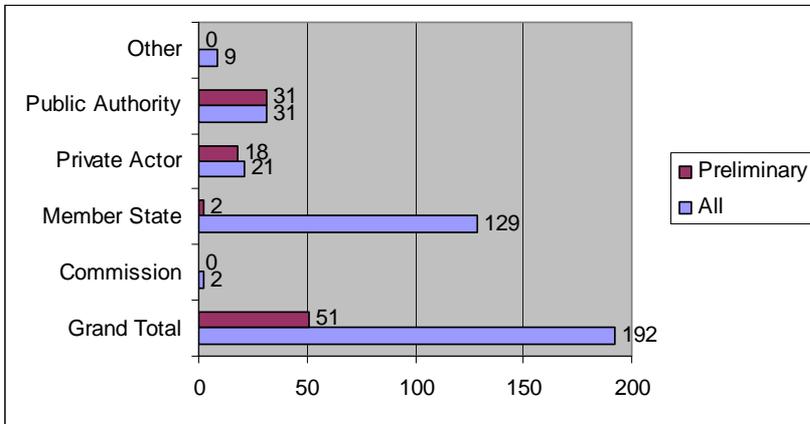
The statistical analyses carried out in the current research project focus on waste policy case rulings that occurred from 1991 up until 2009; a significant subset of environmental policy. This timeframe does not practically reduce the number of rulings of the sector (Bandi et al, 2008). All available cases with rulings issued from 1991 to 2009 and the Advocate General’s (AG) opinions on waste policy were downloaded from the online EU library archive (EUR-LEX).

Court rulings on waste legislation can be classified into five categories, as outlined in Figure 1. Given the small number of cases, rulings are classified as “Preliminary” or “Other”. Plaintiffs and defendants of the cases are classified in four categories, as outlined in Figure 2.

**Figure 1**  
**Classification of CJ rulings on waste by plaintiff and type of ruling**



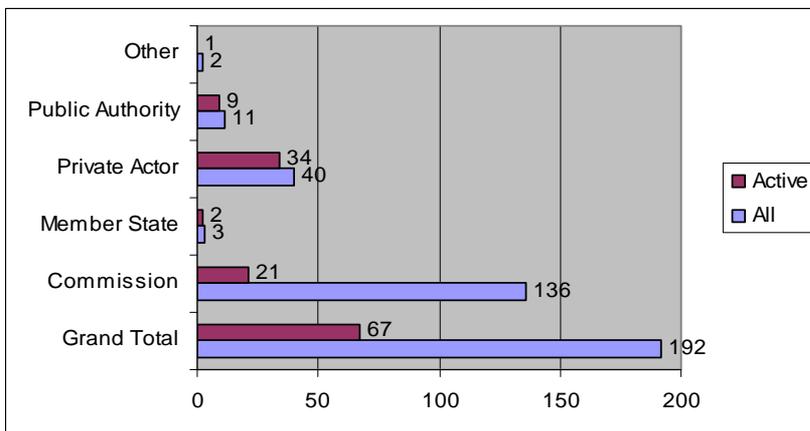
**Figure 2**  
**Classification of CJ rulings on waste by defendant and type of ruling**



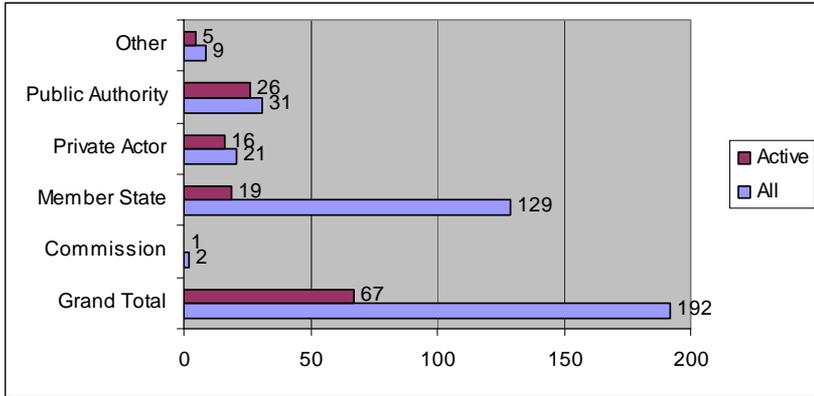
### 2.3 Defining “active rulings”

All cases were classified as “active” and “non active”; using definitions based on the dominant literature examining activity in courts. The cases were characterised “active” when rulings: i) contained an interpretation, or clarification, of law that led to an effective change of the legislation; ii) struck down law; iii) created legal precedent. The cases were cross-referenced with the relative literature examining significant EU case law and EU waste policy case law, as well as Court annual reports in order to increase reliability of the coding (Kramer, 2002; CJ, 2009; 2010).

**Figure 3**  
**Classification of active CJ rulings on waste by plaintiff**



**Figure 4**  
**Classification of active CJ rulings on waste by defendant**



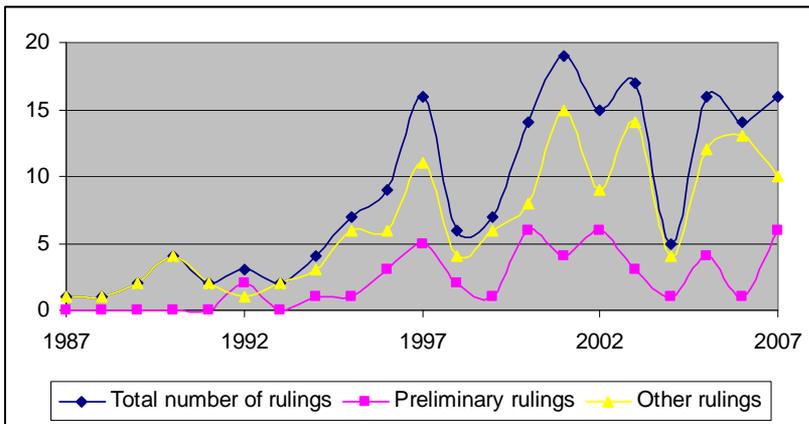
### ***2.4 Defining “in agreement” with the Commission’s position”***

I defined the categories broadly in accordance with the dominant literature (Kilroy, 1999; McCown, 2003; Carrubba and Gabel; 2006, Conant 2007). Court rulings and the AG’s opinion were considered “in agreement” when the Commission’s stated position over the main argument of the case was the same with that of the Court’s ruling. In cases where the Commission was not involved directly, its opinion was examined as presented in the case or in the AG’s opinion, and compared to the points made in the Court’s ruling.

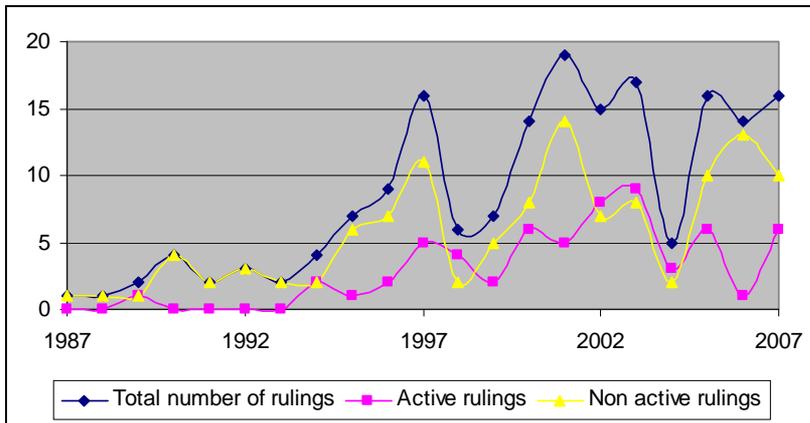
## **3. Results**

As it is shown in Figures 5 and 6, the activity of the Court has increased dramatically during the last thirty years. Total rulings, as well as their subsets, preliminary (versus other) and active (versus non active) have increased.

**Figure 5**  
**Total number of rulings, Preliminary rulings, Other rulings**



**Figure 6**  
Total number of rulings, Active rulings, Non active rulings



I utilized the count model in order to examine statistically the time trend of the data. (Table 1).

**Table 1**  
Poisson model of time trend of all rulings

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-0.450666	0.337979	-1.333413	0.1824
TIME	0.346149	0.062242	5.561313	0.0000

TIME*TIME	-0.009524	0.002441	-3.901503	0.0001
R-squared	0.690602			

The parameter estimates clearly suggest that rulings increase over time and that there was a leveling off. **Therefore, the hypothesis that the number of rulings increase over time cannot be rejected by the data.**

We now turn our attention to Hypothesis 1b and Hypothesis 1c: both hypotheses were tested via the time quadratic model. Tables 2, 3 depict the parameter estimates below.

**Table 2**  
**OLS model of time trend of the ratio of active rulings to all rulings**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.075598	0.137305	-0.550585	0.5887
TIME	0.055413	0.026192	2.115640	0.0486
TIME*TIME	-0.001633	0.001162	-1.405137	0.1770
R-squared	0.334676			

**Table 3**  
**OLS model of time trend of the ratio of preliminary rulings to all rulings**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.088196	0.068778	-1.282331	0.2160
TIME	0.054744	0.015510	3.529493	0.0024
TIME*TIME	-0.001963	0.000832	-2.359388	0.0298
R-squared	0.287962			

In both cases the ratio is increasing over time and there is leveling off. **Therefore, the hypotheses that the ratio of active rulings to total rulings and the ratio of preliminary rulings to total rulings increase over time can not be rejected by the data.**

### Hypothesis 2

The estimates of the logit model are presented in Table 4 below.

**Table 4**  
**Logit estimates of the log odds of active rulings: full model**

Variable	Coefficient	Std. Error	z-Statistic	Prob.
Constant	-2.875940	0.742265	-3.874544	0.0001
Private Actor (plaintiff)	3.304405	1.003122	3.294121	0.0010
Public Authority plus (plaintiff)	2.288554	0.815138	2.807567	0.0050
Private Actor (defendant)	0.957190	0.852613	1.122654	0.2616
Public Authority (defendant)	0.192501	1.026723	0.187491	0.8513
Time	0.074503	0.043831	1.699769	0.0892
McFadden R-squared	0.341460			

The estimates clearly suggest that the odds of an active ruling critically depend on the plaintiff. These hypotheses were tested via a Wald test, and both of them could not be rejected by the data.

Finally, the model was re-estimated after grouping the data in two categories “EU level” which consists of actors involved at the supranational level of policy (Commission, Council, EP, MS, 141 cases) and “Non-EU level” which consists of actors involved on the domestic policy level (Private Actors, Public Authorities, 51 cases). The trend variable turns out to be insignificant, so the final model is as follows:

**Table 5**  
**Logit estimates of the probability of active rulings: final model**

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-1.584120	0.224084	-7.069311	0.0000
Non EU level	3.265879	0.445499	7.330830	0.0000
McFadden R-squared	0.303594			

Upon analyzing the data for H3 it became clear that the agreement of Court rulings with the Commission’s position is so great that running a logit model would be pointless. The data indicate that the Commission has been utilizing an informal method of pushing its agenda, in 83% of all rulings and 89% of all active rulings the Commission is in agreement with the Court.

## **4. Discussion**

### ***Hypothesis 1***

The increase of other rulings, the main supplier of which is the Commission can be justified in terms of the increase of EU environmental law (Bandi et al, 2008). The increase of preliminary rulings as well as the increase of the ratio of preliminary rulings to total rulings suggest that domestic actors have been pushing upwards the Court's caseload and potential to impact. These results agree with the literature on the demand side of litigation and strongly support spill-over theories.

Furthermore, the increase in active rulings, the increase of the ratio of active rulings to total rulings, and the fact that most preliminary rulings are active rulings; indicate that there is an increase in the need for legal clarification; in agreement with the demand side of the literature. However, a definite rejection of the supply side argument (Alter, 2000) requires information about cases submitted by the national courts to the CJ which were considered insufficient or irrelevant.

Finally, the data suggest that there is a small levelling of the Court's activity. Firstly, the CJ might have an input threshold. It might either be successful in urging a limitation of the preliminary rulings, or using AG opinions to send them back to national courts as "irrelevant" (Craig, 2001). Secondly, there is a wave pattern in the caseload of the Court related to the legislation produced by the Commission. Waste policy underwent a renewal in early 2000 (Bandi et al, 2008). The levelling off can mean that legal interpretation requiring the involvement of the CJ has taken place. As more legal precedents take place the need for the Court is reduced.

### ***Hypothesis 2***

The results clearly indicate that Non EU level actors are driving upwards judicial activism. The results support the literature on the demand side of EU litigation and the use of litigation by smaller actors. The number of active rulings due to action by Public Authorities is consistent with the argument of upgrading the "lowest common denominator policy" (Stone Sweet, 2003), as Public Authorities often end up in Court to upgrade a policy they think is too poor. Additionally this agrees with Coen (1998) and Tsebelis et al (2001) as smaller authorities might attempt to block or impact policies they disagree with. Examining the results for the Commission it seems to act more as a regulator with only 15% of its cases being active. Here it might appear that intergovernmentalist theory better explains the Commission's positions than neofunctionalism.

### ***Hypothesis 3***

These results agree with the neofunctionalist argument (Alter, 2000) where the Court looks at the Commission for political cover. Bearing in mind the evidence in H2, the EU is more complex than neofunctionalism or intergovernmentalism suggest.

In conclusion, it appears that the Court has the power to influence EU waste policy through its increasing caseload while its active rulings constitute one third of the examined total. Consequently, the institution has become an important actor for shaping EU waste policy, and this is an increasing trend. It is worth noting that the different qualitative characteristics of the policy area examined in this research paper may not be easily generalised in other policy areas. Further research on CJ activity in other specific policy sectors is needed in order to make such claims. By doing so, researchers will create a rich quantitative map of the Court's activity that will indicate the impact on the actors involved.

### **References**

1. Alter, Karen J. (2000) The European Union's Legal System and Domestic Policy: Spillover or Backlash?. *International Organization*, 54 (3), 489-518.
2. Alter, Karen J. (1998) Masters of the Treaty?: European Governments and the European Court of Justice. *International Organization*, 52 (1), 121-147.
3. Bandi, Gyula, Orsolya, Csapo, Luca, Kovacs-Vegh, Bence, Stigel, Szilvia, S. (2008). *The Environmental Jurisprudence of the ECJ*. Budapest, Szent Istvan Tarsulat
4. Burley, Anne Marie and Mattli, W. (1993) Europe before the Court: A Political Theory of Legal Integration. *International Organization*, 47 (1), 41-76.
5. Carrubba, Clifford J. and Gabel, M. (2006) Do governments Sway European Court of Justice Decision-making?: Evidence from Court Briefs. *IFIR, Working Paper Series*, 2005-06.
6. Cichowski, Rachel A. (1998) Integrating the Environment: The European Court and the construction of supranational policy. *Journal of European Public Policy*, 5 (3), 387-405.
7. Coen, D. (1998) European Business Interest and the Nation State: Large firm Lobbying in the European Union and Member States," *Journal of Public Policy*, 18 (1): 75-100.
8. Conant, L. (2007) Review Article: The Politics of Legal Integration. *Journal of Common Market Studies*, 45 (1), 45-66.

9. Court of Justice. (2009) Proceedings: 2004 – 2008. Luxembourg, Court of Justice.
10. Court of Justice (2010) Annual Report: 2009. Luxembourg, Court of Justice.
11. Craig, P. (2001) The Jurisdiction of the Community Courts Reconsidered. In: De Burca, Graine. (eds) *The European Court of Justice*. Oxford: Oxford University Press.
12. European Union Online Database. [Online] Available at: <http://eur-lex.europa.eu>. [Accessed May 25th 2010].
13. Garrett, Geoffrey, Kelemen, R. Daniel, Schulz, H. (1998) The European Court of Justice, National Governments, and Legal Integration in the European Union. *International Organization*, 52 (1), 149-176.
14. Kramer, L. (2002) *Casebook on EU Environmental Law*. Oxford, Hart Publishing.
15. Majone, G. (1996) *Regulating Europe*. London, Routledge.
16. Mattli, Walter and Slaughter, Anne-Marie. (1998) Revisiting the European Court of Justice. *International Organization*, 52 (1), 177-209.
17. McCown, M. (2003) The European Parliament before the bench: ECJ precedent and EP litigation strategies. *Journal of European Public Policy*, 10 (6), 974-995.
18. Pittarakis, Jean-Yves, Tridimas, G. (2003) Joint Dynamics of Legal and Economics Integration in the European Union. *European Journal of Law and Economics*, 16: 357-368.
19. Stone Sweet, Alec and Brunell, Thomas L. (1998) The European Court of Justice and the national courts: a statistical analysis of preliminary references. *Journal of European Public Policy*, 5 (1): 66-57.
20. Stone Sweet, A. (2003) European Integration and the Legal System. In: Borzel, A. Tanja and Cichowski, Rachel (eds) *The State of the European Union VI: Law, Politics, and Society*. Oxford, Oxford University Press.
21. Tallberg, J. (2002) Paths to Compliance: Enforcement, Management and the European Union. *International Organization*, 56 (3), 609-643.
22. Tridimas, George and Tridimas, T. (2004) National courts and the European Court of Justice: a public choice analysis of the preliminary reference procedure. *International Review of Law and Economics* 24, 125–145.
23. Tsebelis, George, Jensen, Christian B., Kalandrakis, Anastasios and Kreppel, A. (2001) Legislative Procedures in the European Union: An Empirical Analysis. *British Journal of Political Science*, 31, 573-599.

# **Reinventing common history: international policy dilemmas in the post-conflict reconstruction of cultural heritage in Bosnia and Herzegovina.**

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## **Abstract**

**The paper will seek to examine the international community's policy dilemmas in the post-conflict reconstruction of cultural heritage in Bosnia and Herzegovina after the signing of the Dayton Peace Agreement in 1995. The research will focus on the concrete policies of the international community on the renovation of museums as key institutions in group identities' building and on the reconstruction of historical sites as major instruments for fixation of common cultural past. Based on two particular case-studies (the renovation of the National Museum of Bosnia and Herzegovina in Sarajevo and the reconstruction of the famous Old Bridge in Mostar), the paper will analyze the international attempts on reinvention of common Bosnian history through the externally imported concept of Bosnian multi-ethnicity and multiculturalism.**

## **1. Introduction.**

Bosnia and Herzegovina was an ethnically heterogeneous area inherited by three major ethnic groups (Serbs, Croats and Muslims) and enjoying autonomous status within the Socialist Federative Republic of Yugoslavia. Although diversity in culture and religious allegiances was a substantial ingredient of social life, ethnic exclusiveness remained strong among Serbs, Croats and Muslims. With the collapse of the federal state of Yugoslavia the very foundation for the existence of a multiethnic Bosnia and Herzegovina came into question and the rise of ethno-nationalism in the political agenda of the leaders of the three main ethnic groups culminated in three years of bloody interethnic war (Burg 1997: 125). Between 1992 and 1995 Bosnia and Herzegovina became the most contested area in the nationalistic programs of the Bosnian Serbs, Croats and Muslims and experienced levels of destruction and ethnic cleansing that shocked the world.

The nationalist policies towards creation of ethnically homogenous areas led to massive expel of population and acts of destruction targeting the demolition of the

identity of the “other” and the erasure of the collective memory of peaceful coexistence between the Serbs, Croats and Muslims. In these processes the destruction of ethnic or common cultural heritage was used as an operational ethnic cleansing tool. As a result Bosnia and Herzegovina experienced the most massive and systematic destruction of cultural heritage known in post-modern times. Between 1992 and 1995 Bosnia and Herzegovina lost an estimated 1,200 mosques, 150 catholic cathedrals, 10 orthodox churches and more than 1000 other monuments of culture (Riedlmayer 2002: 98) Some of the common prewar cultural institutions situated in Sarajevo (the National Museum of Bosnia and Herzegovina, the National and University Library, the Oriental Institute etc) survived the war but suffered substantial losses with more than 1 million volumes and artifacts of their collections burned and destroyed (Riedlmayer 1995: 7-9).

After the end of the war in 1995 the reconstruction of common cultural heritage was extensively prioritized by the international community in its efforts to stabilize the region by reversing war effects and promoting ethnic reconciliation.

## **2. International policies in the post-conflict reconstruction of cultural heritage in Bosnia and Herzegovina.**

*‘Rather than the past being preserved as some objective record, it is always being reconstructed in the context of the present, and never disassociated from considerations of power’.*

Maurice Halbwachs (1992: p.40)

After the signing of the Dayton Peace Agreement (1995) Bosnia and Herzegovina became arena of the most extensive externally promoted policy-making throughout the 1990’s. The import of international policies in post-Dayton Bosnia and Herzegovina was channeled through three main mechanisms: peace-keeping and security operations, state and institution-building efforts and attempts on reversal of war effects. The latter was due to provide the most far reaching and long lasting impact on the reconsolidation of the Bosnian society and to create a fertile environment for inter-ethnic reconciliation and cooperation. To achieve its goals in that field, the international community introduced significant measures and programs on refugee return, transitional justice and reconstruction of ethnic and common Bosnian cultural heritage.

The size and significance of war-time destruction compelled the international community to embark into numerous projects seeking to (re)create the notion of Bosnian multi-ethnic and multicultural past. In that process the common cultural heritage was conveniently used as a bridge between Serbs, Croats and Muslims in Bosnia and Herzegovina.

The perceived importance of the latter issue has been illustrated by the fact that the international involvement in post-conflict reconstruction of cultural heritage in Bosnia and Herzegovina was legally sanctioned in the *Dayton Peace Agreement (DPA)*, which foresaw the establishment of an independent *Commission to Preserve National*

*Monuments.* The Commission's main task consisted in decision-making process on the designation of property having cultural, historic, religious or ethnic importance as National Monuments<sup>22</sup>. The establishment of the Commission provided an important first step towards the elaboration of proper legal tools for reconstruction of cultural heritage in the war-affected society of Bosnia and Herzegovina.

Already in 1996 it became evident that the appropriate legal, technical, administrative and financial measures needed for the reconstruction and protection of cultural heritage could not be taken and imposed by a state that was in a process of institution-building. Although local institutions (e.g. the Local Institute for the Protection of the Cultural-Historical and Natural Heritage of the Republic of Bosnia and Herzegovina) declared readiness to cooperate on the implementation of international cultural policies, their efficiency was seriously hampered by inter-ethnic mistrust and the lack of political consensus among the two state entities constituting Bosnia and Herzegovina (Republika Srpska and the Croat-Bosniaks Federation). Consequently the reconstruction of cultural heritage became a field almost entirely dominated by international actors: the international community represented mostly by the UN, UNESCO, the European Union and the Council of Europe and a great number of various non-governmental organizations (NGOs).

All projects on reconstruction of cultural heritage elaborated and introduced on international level incorporated the nascent tendency towards new interpretation of the Bosnian past through the prism of Bosnian "traditional" multiculturalism. Museums, historical sites and religious institutions in Bosnia and Herzegovina were contextualized by a larger historical perspective and were reinterpreted as original evidences of the pre-war peaceful coexistence between Serbs, Muslims and Croats. In that process cultural heritage was prioritized for reconstruction only if it was ethnic (e.g. mosques, churches and cathedrals), or if it could easily perform the function of a material symbol of Bosnian multicultural past.

To support this argument I shall address the reconstruction policies towards two important cultural sites from the pre-war period: the National Museum of Bosnia and Herzegovina, situated in Sarajevo and the famous Ottoman Old Bridge in the town of Mostar.

### **3. (Re) inventing common history: Reconstruction of museums and historical sites in post-Dayton Bosnia and Herzegovina.**

*'The past is not preserved but it is socially constructed through archives, museums, school curricula, monuments, and public displays'.*

Brian S. Osborne (2001: p. 45)

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<sup>22</sup> The General Framework Agreement: Annex 8, art. V, line 5. Available from: [www.ohr.int/dpa](http://www.ohr.int/dpa) [Accessed 5th March 2011]

### 3.1 The National Museum of Bosnia and Herzegovina

The importance of museums in identity and collective memory building often transcends their cultural function to preserve the past. The potential role of museum institutions as political tools appears as relatively new field of research in academic and public debates. Back in 1991 in his famous 'Imagined Communities' Benedict Anderson presented museums as one of the three main components of civic nationalism (together with the map and the census) and referred to them as 'instruments of power' which are "profoundly political" (Anderson 1991: p.163, p.178). Six years later James Clifford further developed the concept of museums as "contact zones" with high potential to serve not only as spaces for cultural encounter, but also as places for political negotiations. According to Clifford, museums cannot claim political neutrality and should be held accountable for the activities of their public and private sponsors (Clifford 1997: p.206). Indeed, museums, along with other national institutions like archives and universities remain a relevant analytical category that provides insights in the complex political context in which these institutions operate (Hajdarpasic 2008: p. 109).

The relatively 'young' debates on the potential political function of museum institutions explains why over the 1990's the international community did not elaborate a comprehensive policy towards museum preservation and (re)construction in Bosnia and Herzegovina. The unfocused international efforts in that field represented a serious feedback in the light of the attempts on building of a new supra-ethnic Bosnian identity. Although some isolated efforts on renovation of museum institutions did took place after 1995, no complex policy was adopted and introduced either on international or on local level. Priority was given only to fragments of the Bosnian history that could be easily promoted as 'bridges' between the three ethnic groups in the country. Exemplifying is the case of the National Museum of Bosnia and Herzegovina, situated in Sarajevo.

Over the years the National Museum of Bosnia and Herzegovina had developed as a complex cultural and scientific institution fostering a number of scientific and scholarly disciplines such as history, geography, archeology, ethnology, history of art and natural history, language, literature and bibliography<sup>23</sup>. The 1992-1995 war significantly damaged the four buildings of the museum, and military actions harmed not only material cultural heritage, they interrupted the well-established scientific and publishing activity of the museum.

The weak state structure provided by the Dayton Agreement in 1995 seriously hampered the post-war adoption and implementation of an adequate state policy towards reconstruction of the National Museum. The international community did not embark into full-scale renovation processes either. Instead, it chose to focus on specific neutral components of the common Bosnian history which were unlikely to cause interethnic tensions.

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<sup>23</sup> [http://www.zemaljskimuzej.ba/o\\_nama/razvoj\\_muzeja-en.php](http://www.zemaljskimuzej.ba/o_nama/razvoj_muzeja-en.php), [Accessed 17<sup>th</sup> May 2011]

One of these neutral components was the famous Sarajevo *Haggadah*: a fourteenth-century Jewish manuscript brought to Bosnia and Herzegovina more than 500 years ago and one of the Bosnian greatest cultural treasures, which managed to survive the 1992-1995 war (Riedlmayer 1995: p.8)<sup>24</sup>. In the post-Dayton period the book received extensive international attention due to two main reasons: *first*, the fact that the manuscript was Jewish prevented the provocation of conflicting ethnic interests and *second*, its survival over several armed conflicts could be conveniently interpreted as a paradigm of the endurance of religious coexistence in face of war (Hajdarasic 2008: 111). In 2003 the International Commission to Preserve National Monuments proclaimed the manuscript as a national monument of Bosnia and Herzegovina and introduced strict measures for its safekeeping and protection. Further on, the international community (UNMBH) sponsored the renovation of a single museum's room to accommodate the manuscript and organized a special *Haggadah* exhibit, which was broadly covered by local and international media.

Apart from that no adequate program for comprehensive renovation of the National Museum was introduced. Hundreds of artifacts and items from Habsburg archeological exhibitions, natural science collections and rare books remained unattended, and the lack of international and local attendance left the National Museum of Bosnia and Herzegovina closed for public for more than six years (2004-2010).

The case of the Sarajevo *Haggadah* indicates that instead of adopting comprehensive and lasting policy towards museum reconstruction, the international community chose to introduce a series of short-termed, superficial improvements symbolizing multiculturalism and religious tolerance (Hajdarasic 2008: 115). The international policies on museum reconstruction in Bosnia and Herzegovina failed to promote museums' role as "contact zones" and spaces of cultural encounter within the Bosnian society. Considering the importance of museums in collective memory and identity building, the respective institutions should be address more thoroughly as part of the international policies on state and society building in Bosnia and Herzegovina.

### **3.2 The Old Bridge (*Stari Most*) in Mostar.**

The international policies in the reconstruction of historical sites followed similar pattern with high priority given to heritage with potential meaning of a 'bridge' within the Bosnian society. The reconstruction of historical sites in post-Dayton Bosnia and Herzegovina represented an illustrative example of how myths of the past were reinterpreted and attached to material culture to serve political consideration of the present (Grodach 2002: p.62) Such tendencies became evident during the reconstruction of one of the most significant cultural monuments in Bosnia and Herzegovina - the famous Old Bridge (*Stari Most*) in Mostar.

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<sup>24</sup> The interesting history of the manuscript's survival throughout the centuries and during the 1992-1995 war is examined by Donia 2007: p. 396-397.

Built in the 16<sup>th</sup> century, the Old Bridge was an important Ottoman heritage site which had given the name of the town itself (Mostar literally means the 'bridge keeper'). The bridge was fully destroyed by Croat units during the 1992-1995 war when Mostar became politically contested place in the nationalist agendas of Bosnian Muslims and Croats and therefore an arena of devastating military actions.

Reconstruction policies were introduced right after the bridge's demolishment in 1993 as part of the project "*Mostar 2004*" foreseeing renovation of the whole old town of Mostar within 10 years. Similarly to the popularization of the Sarajevo *Haggadah* manuscript, the reconstruction of the Old Bridge was politically contextualized by attempts on changing the meaning of Bosnian cultural heritage. In that process the international community sought to popularize *Stari Most* not merely as a relic from Ottoman architecture, but as 'an exceptional and universal symbol of coexistence of communities from diverse cultural, ethnic and religious background'<sup>25</sup>.

Already in 1994 it was decided that 'the rebuilding of the Old Bridge should occur least, not first, in the process of postwar reconstruction, so that its completion would mark the renewal of a multicultural Mostar' (Bing 2001:242). Indeed, the reconstruction of *Stari Most* was accomplished by the summer of 2004 and marked the successful realization of '*Mostar 2004*'. The significance of the event was promoted internationally by the decision of UNESCO Ministers of Culture to meet in Mostar four days before the opening ceremony and to announce the launching of a global project titled '*Cultural Heritage - a Bridge Towards a Shared Future*' in which the member-states committed to further work on the convert of Southeast Europe into a region of tolerance, reconciliation and cultural inter-community dialogue<sup>26</sup>. The timing, purpose and title of UNESCO's new project were largely inspired by the reopening of the Old Bridge in Mostar and practically represented an attempt on transmission of the 'bridge metaphor' in international approaches towards Bosnia and Herzegovina on macro-regional level.

However domestic realities substantially differed from the solemn and optimistic tone of international community's declarative diplomacy. Ethnic communities in Bosnia and Herzegovina appeared slightly susceptible to externally imported reconciliation policies. The reconstruction of *Stari Most* did not meet the expectations to become a material symbol of reunion between the citizens of Mostar. First, it should be pointed out that the two parts of the *Nevetra* River connected by *Stari Most* were Bosniaks and in that sense the bridge did not provide and hence could not be perceived as material reconnection between the Croat and the Muslim communities of the town. And second, Bosnian Croats continue to perceive the bridge only as a Muslim heritage, and not as part of their own history and even point it out as an evidence for enhanced Muslim presence (Völker 2010: p. 3). Thus, reinterpretations of the Old Bridge as a symbol of Bosnian multicultural past failed and Mostar's population continues to live in ethnically divided (homogeneous) enclaves despite of the "bridging" imported by the international community.

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<sup>25</sup> <http://whc.unesco.org/en/list/946> [accessed 17th April 2011]

<sup>26</sup> Ibid.

## 4. Conclusion

The post-conflict reconstruction of cultural heritage in Bosnia and Herzegovina was part of a broader pattern aiming at reversal of war effects and reconsolidation of the Bosnian society. The high number of reconstructed cultural sites in post-Dayton Bosnia and Herzegovina shows that international policy in the region was successful in terms of material rebuilding of cultural heritage. What has remained unaccomplished has been the recreation of sustainable multi-ethnic community and the effective integration of the three different cultural groups into one society.

The walls that exist in Bosnia today are made out of memories rather than bricks. The erasure of the collective memory of the recent violent past and the revoking of the other - that of the prewar peaceful coexistence - will need more than international bridging and may take decades, if not centuries. In that sense the challenge to the international community for the next years remains the same as it was in 1995 - is it possible to reunite a society divided by the traumas of war and to (re)build a sustainable collective identity through externally imported reconciliation mechanisms?

## References

1. Anderson, B. (1991) *Imagined Communities: Reflections on the Origins and Spread of Nationalism*, London: Verso, 2<sup>nd</sup> edn.
2. Assmann, A. (2008a) Transformation between History and Memory. *Social Research: an International Quarterly*, Vol. 75, N 1, p.49-72.
3. Bing, J. (2001a) Ideas and Realities: Rebuilding in Postwar Mostar. *Journal of Architectural Education*, May, ACSA, p238-249.
4. Burg, S. (1997) Bosnia and Herzegovina-A Case of Failed Democratization. In: Dawisha, K. and Parrot, B. (eds) *Politics, Power and the struggle for Democracy in Southeast Europe*. Cambridge: Cambridge University Press, p.122-145.
5. Clifford, J. (1997) *Routes. Travel and Translation in the late 20<sup>th</sup> century*. Harvard: Harvard University Press.
6. Donia, R. (2007b) The New Masters of Memory: Libraries, Archives and Museums in Post-Communist Bosnia and Herzegovina. In: Blouin, Fr. And Rosenberg, W. (eds) *Archives, Documentation and Institutions of Social Memory: Essays from the Sawyer Seminar*. Michigan: University of Michigan Press, p 393-402.
7. Grodach, C. (2002a) Reconstituting identity and history in post-war Mostar. *CPY*, Vol.6, No1 p. 61-83.
8. Hajdarpasic, B. (2007c) Museums, Multiculturalism and the Remaking of Postwar Sarajevo. In: Ostow, R. (eds) *(Re) Visualizing National History: Museums and National Identities in Europe in the New Millenium*. Toronto: University of Toronto Press, pp. 109-139.
9. Halbwachs, M. (1992). *On Collective Memory*, Chicago: Chicago University Press.
10. Osborne, B. (2001b) Landscapes, memory, monuments and commemorations: Putting Identity in its Place. *Canadian Ethnic Studies Journal* 33(3), p.36-77.

11. Riedlmayer, A. (2002b) From the Ashes: The Past and Future of Bosnia's Cultural Heritage. In: Shatzmiller, M. (eds) *Islam and Bosnia: Conflict Resolution and Foreign Policy in Multi-Ethnic States*. Montreal: Mc Quell Queens University Press, pp. 98-135.
12. Riedlmayer, A. (1995) Libraries are not for burning: International Librarianship and the Recovery of the Destroyed Heritage of Bosnia and Herzegovina. *Middle East Studies Association Bulletin*, Vol.29, N 1, pp. 7-12.
13. Völker, K. (2010) "*Politics of identity - the Example of Mostar, Bosnia and Herzegovina*" [online]. Paper presented at European Workshop "City and Diversity - Challenges for Citizenship Education", 24-26 June, Barcelona, Spain. Available from: <http://www.bpb.de/files/EIZVRO.pdf>. [Accessed 30<sup>th</sup> April 2011]

# Attentional processes of adults bilingual in Albanian and Greek.

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## 1. Introduction

Current globalization policies have rendered bilingualism as the universal norm rather than the exception (Siegal et al., 2010). Thus the need to clarify the exact effects of bilingualism on cognition has increased over the years. Traditionally, research has supported a bilingual disadvantage in language processing, for example in lexical acquisition (Ivanova & Costa, 2008), consequently leading to educational policies against bilingual education (Campbell, 2010). More recent evidence though, supports a bilingual advantage in non-linguistic cognitive tasks (e.g. Bialystok & De Pape, 2009; Kharkhurin, 2010; Poulin-Dubois, Blaye, Coutya & Bialystok, in press). That is, it has often been reported that bilinguals outperform monolinguals on tests of cognitive control.

However, most of the studies conducted so far suffered from several limitations. For example, bilinguals and monolinguals have not been well matched on non-linguistic measures such as socio-economic status (SES) that could provide an alternative interpretation of the bilingual advantage (Morton & Harper, 2007). Moreover, while executive attention (e.g. conflict resolution; goal-directed attention) has been relatively well studied in bilingualism, the two other functions of attention, alertness and visuospatial orienting, have been largely ignored. To our knowledge, only two studies have investigated the three attention networks (i.e. executive attentional control, alertness and orienting; Posner & Petersen, 1990) in bilingual individuals (Costa, Hernández & Sebastian-Gallés, 2008; Hernández, et al., 2010). Hence, the aim of the present study is to investigate the three attention networks in bilingual adults controlling for the SES factor.

Another innovation in the present study, as compared to previous studies on bilingualism, is the measure of bilingualism (proficiency on the two languages). Most studies of the bilingual effect on cognition (e.g. Costa, Hernández & Sebastian-Gallés,

2006; Garrat & Kelly, 2008; Portocarrero et al., 2007) have used self-report measures to quantify bilingualism. However, according to the review of Mindt et al. (2008), the subjectivity of such measures should not be underestimated. Thus, we employed a more objective measure of bilingual skill, the numerical language-switching task (Meuter & Allport, 1999). This task appears to be valid as an index of language proficiency in bilingual individuals (Costa & Santesteban, 2004; Meuter & Allport, 1999).

## ***Hypotheses***

### ***The executive network of attention (ANT task):***

According to previous findings, we predicted that (a) bilinguals will resolve conflicting information more efficiently than monolinguals (less interference from incongruent information), and (b) bilinguals will overall perform faster than monolinguals.

### ***The alerting network of attention (ANT task):***

In agreement to previous studies, we hypothesized that bilinguals will have a greater alerting effect than monolinguals.

### ***The orienting network of attention (ANT task):***

No differences among bilinguals and monolinguals in the orienting effect were expected to be found, as previous research has shown.

## **2. Method**

### ***Participants***

The bilingual group included 22 adults (7 males, 15 females) bilingual in Greek and Albanian, with low SES. Their ages ranged from 18 to 48 years old ( $M=31.23$ ,  $SD=9.3$ ). In the monolingual group, 20 adults (8 males, 12 females) monolingual in Greek were included, who were matched on SES to the bilingual group. Their ages ranged from 18 to 61 years old ( $M=40.35$ ,  $SD=14.25$ ). Additionally, 17 adults (6 males, 12 females) monolingual in Greek, with a middle SES level and a moderate skill in a second language served as the mixed group. Their age ranged from 19 to 61 years old ( $M=36.71$ ,  $SD=12.54$ ) (see Tables 1 and 2).

Written informed consent was obtained from all participants. Testing lasted approximately 90 minutes for the monolinguals and 105 minutes for the bilinguals.

**Table 1.** Description of participants' proficiency and use of a second language.

	Comprehend	Speak	Read	Write	Language Use
	<u>M (SD)</u>	<u>M (SD)</u>	<u>M (SD)</u>	<u>M (SD)</u>	<u>M (SD)</u>
monolinguals	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
bilinguals	5 (0)	5 (0)	4 (2)	3 (2)	5 (0)
mixed	3 (0)	3 (2)	3 (2)	3 (2)	0.5 (1)

*Note: Language Skill scores: from 1(not at all) to 5(very well). Language Use scores: from 1(rarely use L2) to 5(very often use L2).*

**Table 2.** Means (in years) of age of exposure in L2, formal and informal lessons in L2 of bilinguals.

Age of exposure in L2	Formal lessons in L2 (in years)	Informal lessons in L2 (in years)
<u>M (SD)</u>	<u>M (SD)</u>	<u>M (SD)</u>
14 (10)	4 (5)	18 (10)

## ***Material and Procedure***

Each participant was tested individually, in a quiet room. A short description of the study, by withholding the exact aims to avoid demand characteristics, was firstly given, followed by the informed consent. The demographics and language background questionnaire were then be filled in by the participant, with the experimenter present so that any misunderstood question can be explained. The intelligence measures followed (Raven's SPM; WAIS-III Vocabulary test).

Furthermore, the computerized tasks were executed (language-switching as the measure of level of bilingualism; the ANT task). For both tasks, instructions were given orally and in written. The order of task administration was counterbalanced for all participants.

## ***Demographics and Language background questionnaire***

This questionnaire was based on previous studies of bilingualism and its hypothesized effect on cognitive processes, which have demonstrated to reliably and validly measure these demographic and linguistic aspects (Abedi, Lord & Plummer, 1997; Brown,

Bown & Eggett, 2009; Costa, Garrat & Kelly, 2008; Gullberg & Indefrey, 2003; Portocarrero et al., 2007).

Although the questions were simply translated in Greek from the English language questionnaires, the language in which a self-rated questionnaire on bilingual language background is written does not appear to have an effect on the ratings (Delgado et al., 1999).

### ***Intelligence and Vocabulary measures***

In bilingual studies, it is essential to match participants for IQ (e.g. Colzato et al., 2008). Importantly, a widely used measure of intelligence has not yet been standardized for the Albanian population (e.g. Wasserman et al., 2000; Zimmerman et al., 2006). Thus, following previous studies of the bilingual effect on attention processes (Colzato et al., 2008; Treccani, Argyri, Sorace & Della Salla, 2009), Raven's Standard Progressive Matrices (SPM; Raven, 1958) was used to measure general intelligence in adults (see Table 1).

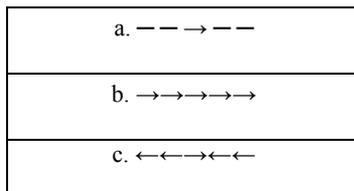
Secondly, as an indicator of vocabulary proficiency, the Vocabulary subtest of the Weschler Adult Intelligence Scale- version III (WAIS-III; 1997) was administered in both languages (i.e. Albanian and Greek). The WAIS has not been standardized for Albanians. To partially compensate for this limitation, a psychologist of Albanian nationality scored the bilingual participants on the Albanian vocabulary test, from their recorded answers.

### ***Computerized tasks***

Both the ANT and the Language-switching task were displayed on a 15 inches monitor of a laptop PC, using the E-Prime 1.1 (2002) software.

### ***The ANT task***

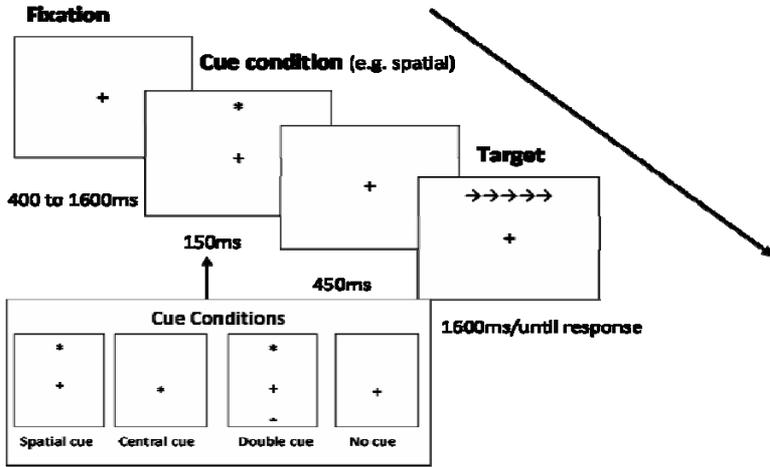
The ANT was adopted from Fan et al. (2002). The target was an arrow, pointing either left or right. The target was always presented centrally, either alone (neutral trial) or flanked by four identical arrows (see Figure 1) according to the condition (congruent or incongruent trial). There were 4 cue conditions (see Figure 2).



**Fig. 1.** The target (a) neutral condition, (b) flanked by 4 congruent flankers and (c) flanked by 4 incongruent flankers.

One of the 12 following conditions was equally represented in each trial: 4 cue-conditions (central cue, double cue, spatial cue, no cue) x 3 flanker conditions

(congruent, incongruent, neutral). Response latencies (RT) and accuracy (errors) were recorded. For a depiction of a typical trial see Figure 2. Completion time was approximately 25min.



**Fig. 2.** Example trial of the ANT task.

### *The Language-switching task*

This task was similar to that of Meuter and Allport (1999). The target stimuli were Arabic digits (1-9). The background was either a Greek or an Albanian colored flag (depending on the condition) serving as the language cue (i.e. prompted participants to read the digit in either language) see Figure 3). A microphone, connected to a voice key, was used to respond to the target.

Participants were instructed to respond (i.e. read aloud the digit on the screen) in the language suggested by the language-cue (flag). They were encouraged to respond as quickly and accurately as possible.



**Fig.3.** Example of stimuli serving as language cues in the language-switching task.

Generation of digits was random; however no number could be presented twice in a row. Trials were of two types: (1) trials where the language of response was the same, either L1 or L2, as in the previous trial (non-switch trials; 70%), and (2) trials where the language of response, either L1 or L2, was different than the language used in the

preceding trial (switch trials; 30%). Half of the switch and non-switch trials required a response in L1 and half in L2.

The task was self-paced (i.e. each trial lasted until response to target) and the next trial onset took place 400ms after response (triggering of voice-key). Response latencies (RT) were recorded by the software.

### 3. Results

#### *Raven's SPM and WAIS Vocabulary*

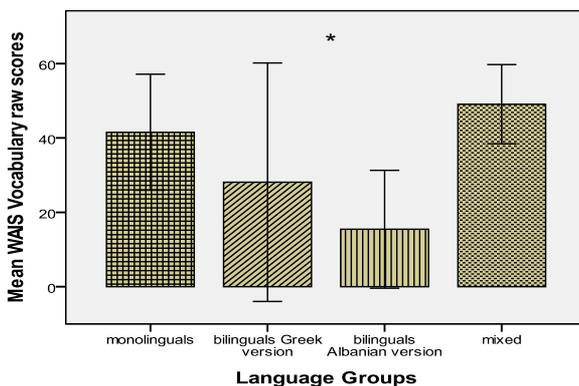
A summary of the scores of all participants in these tests is depicted in Table 3.

**Table 3.**

Scores of all participants on the Raven's SPM and the Vocabulary test of the WAIS.

	Raven's SPM	WAIS Greek Vocabulary	WAIS Albanian Vocabulary
	<u>M (SD)</u>	<u>M (SD)</u>	<u>M (SD)</u>
Monolinguals	41.95 (10.25)	41.55 (7.80)	
Bilinguals	40.32 (8.18)	28.09 (16.04)	15.45 (7.93)
Mixed	47.29 (8.17)	49.94 (5.54)	

Independent t-tests revealed no differences between bilinguals and monolinguals in general intelligence, as indicated by scores on the Raven's SPM test. Moreover, the 3 groups differed significantly in WAIS Vocabulary scores, Greek version, with bilinguals showing a lower Greek vocabulary ability than both the monolinguals,  $p = .002$ , and the mixed group,  $p < .0001$ , and monolinguals showing a poorer vocabulary ability than the mixed group,  $p = .001$ . Interestingly, bilinguals scored significantly worse in the Albanian version of this test compared to their performance in the Greek version,  $p < .0001$  according to paired t-tests (see Figure 4).



**Fig. 4.** All groups differed significantly in mean raw WAIS Vocabulary scores. Bilinguals scored significantly lower in the Albanian than in the Greek version of this test. *Note.* \*  $p < .05$

**The ANT task**

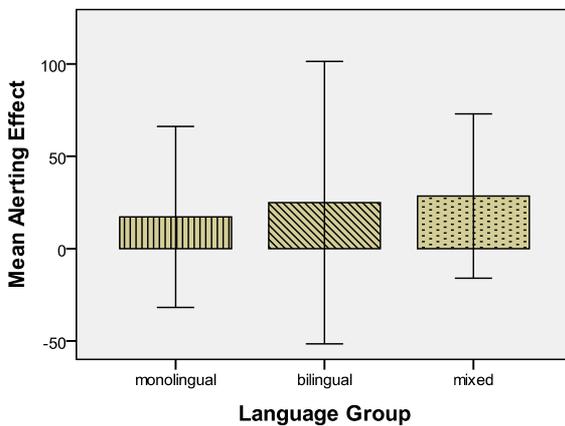
**(a) Executive function of attention**

To analyze the ability to resolve conflicting information, which provides an estimate of a person’s executive attention ability, a 2x2 mixed ANOVA was conducted, with Trial Type condition (Incongruent and Congruent trials) as the within-subjects factor and Language group (monolinguals, bilinguals and mixed) as the between-subjects factor. Reaction Times faster than 250ms and slower than 950ms were excluded from the analysis. Thus, 20 monolinguals, 20 bilinguals and 17 mixed were included.

A significant main effect of Trial Type condition was revealed [ $F(1, 5) = 214.064$ ,  $p < .00001$ ,  $\eta^2 = .799$ ], with RT for incongruent trials ( $M = 714.17$ ,  $SD = 129.54$ ) being slower than for congruent trials ( $M = 593.28$ ,  $SD = 110.24$ ). Thus, a conflict effect was indicated. Crucially, the interaction of interest between the Language groups and the Trial conditions was not observed, [ $F(2, 54) = .721$ ,  $p = .491$ ,  $\eta^2 = .026$ ].

**(b) Alerting**

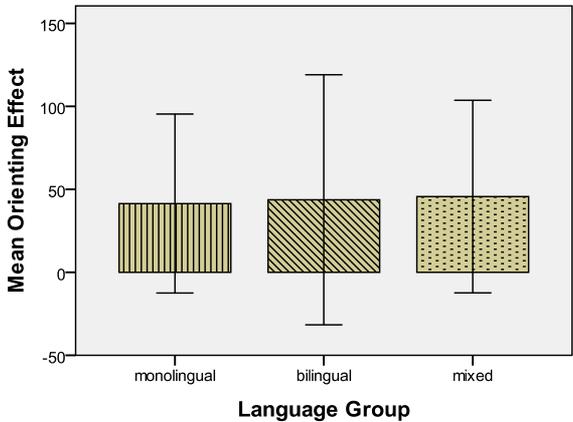
Results were submitted to a 2 x 2 ANOVA, with Cue Condition (no-cue and double-cue trials) as the within-subjects factor and Language Group (monolinguals, bilinguals and mixed) as the between-subjects factor. The main effect of Cue condition was significant [ $F(1, 54) = 36.025$ ,  $p < .00001$ ,  $\eta^2 = .400$ ], with participants responding faster in double-cue trials ( $M = 624.14$ ,  $SD = 110.68$ ) than in no-cue trials ( $M = 585.87$ ,  $SD = 109.09$ ). Thus an alerting effect was indicated, as participants irrespectively of language group affiliation were facilitated by an alerting cue. However, as shown by the non-significant interaction between Cue and Language conditions [ $F(2, 54) = .721$ ,  $p = .491$ ,  $\eta^2 = .026$ ], the alerting effect did not change as a function of Language Group (see Figure 5).



**Fig.5.** The Alerting effect (mean difference among double-cue and no-cue trials) in monolinguals, bilinguals and mixed, similar in all Language Groups. Bars represent SDs.

**(c) Orienting**

Data were analyzed using a 2x2 mixed ANOVA, with Cue (central cue and spatial cue) as the within-subjects factor and Language Group (monolinguals, bilinguals and mixed) as the between-subject factor. A significant main effect of Cue condition was revealed [ $F(1, 54)= 107.328, p<.00001, \eta^2= .665$ ], with responses in trials with a central, non-informative cue, being slower ( $M= 639.53, SD= 113.98$ ) than responses in trials with a spatial cue ( $M= 596.05, SD= 113.22$ ), thus indicating an orienting effect regardless of Language Group. The interaction between Cue and Language condition was not significant [ $F(2, 54)= .082, p= .921, \eta^2= .003$ ], thus suggesting that bilingualism did not modulate the orienting function of attention (see Figure 6).



**Fig.6.** The Orienting effect (mean RT in no-cue minus mean RT in double-cue trials) in monolinguals, bilinguals and mixed, identical in all Language Groups. Bars represent SDs.

**The Language Switching task**

Four out of 22 bilinguals denied executing this task, as they felt tired. Thus, the mean RTs of 18 bilinguals were analyzed using a 2-way ANOVA, with Language condition (Albanian and Greek) and Trial condition (switch and non-switch) as the within-subjects factors. Not surprisingly, there was a significant main effect of Trial condition [ $F(1,17)= 45.295, p<.00001, \eta^2= .797$ ], with faster responses for the non-switch trials ( $M= 754.17, SD= 165.43$ ) compared to the switch trials ( $M= 841.32, SD= 180.35$ ). No other main effect or interaction reached statistical significance. To further investigate whether our bilinguals were balanced or dominant, according to the asymmetrical switching-cost hypothesis mentioned earlier, we compared mean RT in the switch trials in Greek and Albanian using paired t-tests. No significant differences were found

between these conditions, thus suggesting that the bilinguals in this study were balanced.

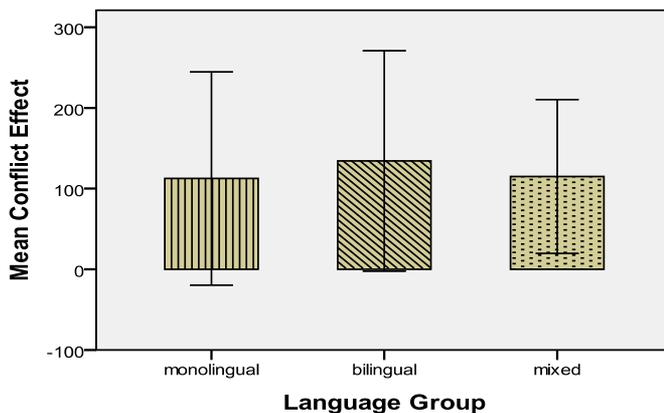
## 4. Discussion

As suggested by the self-reported measure of Language background (see Tables 1 & 2), the bilinguals of this study were balanced. That is, they reported high proficiency and use of a second language and many years of exposure in an L2. This is further confirmed by the Language Switching task, according to which response latencies to switch to L1 did not differ from those required to switch to L2.

Moreover, we were not surprised by the results of the monolinguals and the participants in the mixed group who had higher scores on the WAIS III Vocabulary subscale (Greek version) than the bilinguals, because this test is known to result in higher scores when administered in the native language of the examinee (Harris & Tulskey, 2003). The fact that the mixed group scored higher in the WAIS Vocabulary than both the monolinguals and the bilinguals could be attributed to the higher SES of the mixed group compared to the other two groups. The strong effects of SES on the WAIS III scores have been repeatedly demonstrated (Harris & Tulskey, 2003).

The expected bilingual advantage on monitoring processes was not found, since the magnitude of the alerting effect did not differ among language groups (see Figure 5). Additionally, executive attention was not modulated by bilingualism. These results contradict those of previous studies on the effects of bilingualism on cognition (e.g. Bialystok, 2006; Costa, Hernández & Sebastián-Gallés, 2008; Hernández et al., 2010). As mentioned earlier, SES was not controlled for in these studies, however all our bilingual and monolingual participants were of low SES. Thus it could be the case that, in agreement with Morton and Harper (2007), when SES is controlled for, and individuals of low SES are selected, the so-called “bilingual advantage” on cognitive function is attenuated.

It should be highlighted that there was a non-significant tendency for bilinguals to show a slightly larger conflict effect compared to monolinguals and the mixed group (see Figure 7). That is, contrary to our expectations, bilinguals in this study seemed to resolve conflict slower than monolinguals. This is in clear contrast to previous empirical evidence (e.g. Bialystok, 2006; for a review see Bialystok et al., 2009; Bialystok et al., 2008; Costa, Hernández & Sebastián-Gallés, 2008; Hernández et al., 2010) and could be attributed again to the low SES of our bilingual participants.



**Fig.7.** Mean RT for the Conflict effect (RT for Incongruent – RT for Congruent trials) per Language Group. Bars represent SDs. The tendency for bilinguals to show a larger conflict effect than monolinguals and the mixed was not statistically significant.

Finally, with regards to bottom-up orienting of attention, bilingualism did not play a role as monolinguals, bilinguals and the mixed group showed a quite similar orienting effect. This provides further evidence to the already existing view that bilingualism probably does not modulate stimuli-driven orienting of visual attention (Costa, Hernández & Sebastián-Gallés, 2008; Hernández et al., 2010).

An important limitation of the present study is its small sample size. Power analysis indicated that we should aim for a power estimate of 0.95, and to reach that level of power we should use a total sample size of 84 participants. Instead, we used 59 participants. Given that our results clearly contradict those of numerous other studies on the effect of bilingualism on attention, and that this is the first time that all 3 attention functions are measured in adult bilinguals with low SES factor, we consider it important for our future study to increase this sample size.

In addition, bilingual and monolingual children of low SES have already been tested with the same tasks, adapted for children, to see whether the “bilingual effect” on attention is attenuated by low SES also in children, who have been exposed to a low SES environment for considerably less amount of years than the adults have. Analysis of these results is in process. Finally, a second study is being designed which will offer a more thorough investigation of how practice in using two language sets may influence the mechanisms of attentional control in the developing and the developed mind.

## References

1. Abedi, J., Lord, C., & Plummer, J. R. (1997). Final Report of Language Background as a Variable in NAEP Mathematics Performance. CSE Technical Report 429, Los

- Angeles: University of California.
2. Bialystok, E. (2006). Effect of bilingualism and computer video game experience on the Simon task. *Canadian Journal of Experimental Psychology*, *60*, 68-79.
  3. Bialystok, E., Craik, F. I. M., Green, D. W., & Gollan, T. H. (2009). Bilingual Minds. *Psychological Science in the public Interest*, *10*, 89-129.
  4. Bialystok, E. & DePape, A. M. (2009). Musical expertise, bilingualism and executive functioning. *Journal of Experimental Psychology: Human Perception and Performance*, *35*, 565-574.
  5. Brown, N. A., Bown, J. & Eggett, D. L. (2009). Making rapid gains in second Language Writing: A Case Study of a Third-Year Russian language course. *Foreign Language Annals*, *42*, 424-452.
  6. Campbell, D. E. (2010). *Choosing Democracy: A Practical Guide to Multicultural Education (4th ed.)*. UK: Pearson Education Inc.
  7. Colzato, L. S., Bajo, M. T., van den Wildenberg, W., & Paolieri, D. (2008). How does bilingualism improve executive control? A comparison of active and reactive inhibition mechanisms. *Journal of Experimental Psychology: Learning, Memory and Cognition*, *34*, 302-312.
  8. Costa, A., Hernández, M., & Sebastián-Gallés, N. (2008). Bilingualism aids conflict resolution: Evidence from the ANT task. *Cognition*, *106*, 59-86.
  9. Costa, A., & Santesteban, M. (2004). Lexical access in bilingual speech production: Evidence from language switching in highly proficient bilinguals and L2 learners. *Journal of Memory and Language*, *50*, 491-511.
  10. Fan, J., McCandliss, B. D., Sommer, T., Raz, M., & Posner, M. I. (2002). Testing the efficiency and independence of attentional networks. *Journal of Cognitive Neuroscience*, *14*, 340-347.
  11. Garratt, L. C., & Kelly, T. P. (2008). To what extent does bilingualism affect children's performance on the NEPSY? *Child Neuropsychology*, *14*, 71-81.
  12. Gullberg, M., & Imdefrey, P. (2003). Language History Questionnaire. Retrieved November 2009, from <http://www.mpi.nl/research/research-projects/the-dynamics-of-multilingual-processing/tools/Lang-Hist-Quest-Engl.pdf>
  13. Harris, J. G. & Tulskey, D. S. (2003). *Dealing with "curveballs" when using the WAIS-II and the WMS-III: The interpretation of an unstandardized administration*. In Tulskey, D. S., Chelune, G. J., Ivnik, R. J., Prifitera, A.,
  14. Saklofske, D. H., Heaton, R. K., Bornstein, R., & Ledbetter, M. F. (Eds). *Clinical Interpretation of the WAIS-III and the WMS-III* (pp. 344-390). UK: London, Academic Press.
  15. Hernández, M., Costa, A., Fuentes, L. J., Vivas, A. B., & Sebastián-Gallés, N. (2010). The impact of bilingualism on the executive control and orienting Networks of attention. *Bilingualism: Language and Cognition*, *13*, 315-325.
  16. Ivanova, I., & Costa, A. (2008). Does bilingualism hamper lexical access in speech production. *Acta Psychologica*, *127*, 277-288.
  17. Kharkhurin, A. V. (2010). Bilingual verbal and nonverbal creative behavior. *International Journal of Bilingualism*, *14*, 211-226.
  18. Martin, G. N. (2006). *Human neuropsychology (2nd ed.)*. England: Pearson Education.
  19. Meuter, R. F. I. & Allport, A. (1999). Bilingual language switching in naming: Asymmetrical costs of language selection. *Journal of Memory and Language*, *40*, 25-40.

20. Mezzacappa, E. (2004). Alerting, orienting, and executive attention: developmental properties and sociodemographic correlates in an epidemiological sample of young, urban children. *Child Development, 75*, 1373–1386.
21. Mindt, M. R., Arentoft, A., Germano, K. K., D'Aquila, E., Scheiner, D., Pizzirusso, M. et al. (2008). Neuropsychological, cognitive, and theoretical considerations for evaluation of bilingual individuals. *Neuropsychological Reviews, 18*, 255-268.
22. Morton, J. B. & Harper, S. N. (2007). What did Saymon say? Revisiting the bilingual advantage. *Developmental Science, 10*, 719-726.
23. Portocarrero, J. S., Burrighm, R. G., & Donovan, P. J. (2007). Vocabulary and verbal fluency of bilingual and monolingual college students. *Archives of Clinical Neuropsychology, 22*, 415-422.
24. Posner, M. I., & Petersen, S. E. (1990). The attention systems of the human brain. *Annual Review of Neuroscience, 13*, 25–42.
25. Poulin-Dubois, D., Blaye, A., Coutya, J., & Bialystok, E. (in press). The effects of bilingualism on toddlers' executive functioning. *Journal of Experimental Child Psychology*.
26. Raven, J. C. (1958). *The Standard Progressive Matrices*. London: H. K. Lewis.
27. Siegal, M., Surian, L., Matsuo, A., Geraci, A., Iozzi, L., Okumura, Y., & Itakura, S. (2010). Bilingualism accentuates children's conversational understanding. Article in press.
28. Treccani, B., Argyri, E., Sorace, A., & Sala, S. D. (2009). Spatial negative priming in bilingualism. *Psychonomic Bulletin & Review, 16*, 320-327.
29. Verhoef, K., Roelofs, A., & Chwilla, D. J. (2009). Role of inhibition in language switching: Evidence from event-related brain potentials in overt picture naming. *Cognition, 110*, 84-99.
30. Wasserman, G. A., Liu, X., Popovac, D., Factor-Litvak, p., Kline, J., Waternaux, C. et al. (2000). The Yugoslavia Prospective Lead study: Contributions of prenatal and postnatal lead exposure to early intelligence. *Neurotoxicology and Teratology, 22*, 811-818.
31. Weschler, D. (1997). *WAIS-III administration and scoring manual*. The Psychological Corporation, San Antonio, TX.
32. Zimmermann, M. B., Connolly, K., Bozo, M., Bridson, J., Rohner, F. & Grimci, L. (2006). Iodine supplementation improves cognition in iodine-deficient schoolchildren in Albania: a randomized, controlled, double-blind study. *American Journal of Clinical Nutrition, 83*, 108-114.

# **Decision Making and Budget Management Inside the Family – a gender sensitive case study from Hunedoara County, Romania**

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## **Abstract**

Besides generally being perceived as a space of compassion, love and care, family and households are also connected with the process of pooling and exploitation of resources. My aim in this paper is to explore the process through which women from a Transylvanian county signifies and understand family relations in the course of their everyday life from the point of view of households' decision-making, underlying mostly the aspects concerning the management of family budget. In doing so I will use a gender sensitive constructivist approach and a research design based on qualitative methodological triangulation. Data collection was focused on semi structured interviews and focus groups.

**Keywords:** women, households, budget, decision-making

## **1. Introduction**

This paper's theme, namely that of family decisions and budget management, is part of a broader research dealing with the aspects regarding everyday life citizenship in the

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region of Hunedoara, Romania<sup>28</sup>. As it is a gender sensitive approach, the way in which relationships are represented within a family and, implicitly, the way in which, depending on these meanings and significations, citizenship gets substantiality for women, have been the focus of the research on the whole.

Discussing these aspects becomes all the more important, as the literature in the field has a tendency of dealing with this issue mostly from the perspective of prescriptive approaches emphasizing the efficiency measures of these processes under strictly economic terms (Lawrence, 2008; Ufomadu, 2004) or from the perspective of power relations established in the family by reason of the patriarchal displays, in this case the aspects approached being multiple. Thus, I have tried *an inside* understanding of the way in which decision-making and budget management get new meanings for those actually participating in these processes inside the family, namely women.

## 2. Approach and Methodology.

The arguments are developed on constructivist positions (Berger and Luckmann, 2008) which can be summed up at the epistemological interpretative tradition and a dynamic outlook of the social in which the agency-structure debate is solved by treating them as interdependent. The analysis will be substantiated on the complementarities between holism and individualism. Nevertheless, the position that I assume is an individualist one in which individuals are treated as actors, as subjects able to act autonomously and responsibly, able to evaluate, challenge and change the structures.

The main structure brought into discussion in this paper - the patriarchal one - is defined by Lerner (1986) as being the display and institutionalization of male domination over the women and children in the family, as well as the extension of this domination over women in the society in general (p. 239). Another important aspect is the one regarding the distinction that Martin Hollis (2001) makes between a *normal* behaviour which can arise after some roles have been performed and the *normative* role, the one with the moral value (p. 159)<sup>29</sup>. Thus, a behavior which can be defined as normal may not always be the normative one.

In order to access the women's experiences, the facts have been examined in the field in a complex process which assumed 110 interviews and three focus groups with adult women (aged 24 – 80 years). With respect to the representative nature and choice of subjects, considering the method – qualitative research – I have resorted to the theoretical sampling (Iluț, 1997, p. 54 - 55).

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<sup>28</sup> The Everyday Experience of Women's Emancipation in the U.S. and Romania in the Twentieth Century and Beyond: A Transnational Study - is a research project initiated by professor Maria Bucur from Indiana University.

<sup>29</sup> Hollis (2001) emphasises the distinction between *normal* and *normative*, in the way that the requirements imposed by a role can achieve normative connotations as a result of the meanings actors can associate with these roles, but it does not mean that any normal or regulated behaviour comes from normative expectations (p. 159).

### 3. Results and discussion

Studying the Romanian society through the lens of a gender sensitive approach, emphasizes the fact that the patriarchal normality continues to be dominant in relation to the normativity of partnership gender relations. Thus, in Romania women continue to handle most of the household chores and nursing<sup>30</sup>, have a low access to decision-making positions<sup>31</sup>, have lower salaries than men for equal work<sup>32</sup> (gender payment gap), are part of categories vulnerable to poverty (Băluță *et al*, 2007, p. 54 - 58 ), their problems are not on the public agenda and only occasionally do they enter the formal government's agenda (Carey, 2004, p. 30; Pasti, 2003, p. 164 – 168; Miroiu, 2004, p. 245 - 280), and this mostly to exterior pressure<sup>33</sup>. Adding to this the fact that the subjects explicitly valued their involvement on the labor market (and actively pursuing it) especially due to their perception that this might ensure for them a form of economic empowerment<sup>34</sup>, it's interesting to observe how family decisions evolve and are reflected on the family budget management.

The results can be summed up by drawing two models of decisions-making – **the normative partnership one** and the **the pragmatic normality one**.

The **normative-partnership** model or “**We keep the money together, we make the decisions together**”, it assumes the existence of a common budget of the family as a state of fact presented in most of the interviews done in Hunedoara. Beyond that, the existence of a common budget seems to involve also its common management, mainly by the spouses (but not excluding the immediate family). By this I mean the commonage of income and their use by all the family members, on the principle "each takes as much as they need and for what they need". When bigger expenses occur in the family economy, the decisions regarding these expenses are mutually agreed as a result of discussion where each of the spouses exposes their arguments. The decisions

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<sup>30</sup>See the perception regarding the distribution of gender roles in the family in the Foundation for an Open Society, *The Gender Barometer 2000*;

<sup>31</sup> 11% representation in the Chamber of Deputies 5.8% in the Senate;

<sup>32</sup> On average, by 9%, according to the data published on the site of the European Commission for Employment, Social Affairs and Inclusion, accessed on 09.05.2011; <http://ec.europa.eu/social/main.jsp?catId=963&langId=ro>;

<sup>33</sup> See the concept of room-service feminism (Miroiu, 2004, p. 256 – 260);

<sup>34</sup> In the interview guide there have been questions regarding the perception with respect to the advantages of the work paid and mostly regarding the advantages of the work paid for a woman. The interviews emphasize the fact that the value of the work paid does not result first of all from its income-generating function, but from its function of potentiating independence and that of potentiating women as individuals useful to the community and society, as autonomous entities. Even if referrals are made to earnings, these women say that this way they earn for themselves, they gain economic independence from their husbands and they do not simply mean the fact that they have money or better circumstances.

are made this way in favor of the family interest (seen as primordial) and with a moral value in itself, being considered above any individual interest of the members.

The common management of resources also has a strong symbolic function, marking the unity and cohesion of the family as an institution. More than that, the firmness of answers reveals that the existence of a common budget expresses the most profound normality of everyday life for these women, and is a part of the main ingredients making up a family falling within the framework of normality but also of normativity this time around. This is precisely why, the cases in which the spouses manage separately their income are seen as deviant and counterproductive, mostly as a betrayal of the family interest by virtue of the personal interest which, even if it is not *a priori* challenged, it is designed as being inferior to the former.

The fundamental circumstance from which it appears to start is the one according to which the generation of income is an obligation and each member of the family makes efforts to accomplish this task as good as possible. This circumstance seems to be generally accepted, even if the effects of such a management are not the most effective (as we shall see next). More exactly, in this situation, it is important to be aware of the responsibility and the amendment of efforts to the purposes of its performance, and the problem seems not to be strictly about the actual efficiency measures of the process of resource management and decision-making. This is precisely why, even if one of the spouses may not be the best resource manager, being a part of the family it is implicitly considered that he/she has assumed this responsibility, he /she continue to have the right to do it. The exclusion of either of the spouses from this process, even on efficiency criteria, is regarded this as being immoral and dangerous to the family.

The image so far seems to design a partnership framework for resource management and decision making in the family. We are speaking of a common budget, jointly managed by the spouses who make the decisions as a result of discussion in which the priority is the family interest<sup>35</sup>.

Nevertheless, such a configuration of the gender relations with respect to resource management and decision making in the family, contrary to what we have presented so far, raises a series of problems on which I wish to draw attention next.

First of all, the **structural aspect of gender roles and the fake partnership regarding the decisions and the allotment of family resources**. The main question is: what happens with the system of decision-making and resource management designed above if we are speaking about the continuity of traditional gender roles, in which women are the main suppliers of chores and nursing and at the same time, they have become a constant source of income by providing paid work? We are dealing at least with different responsibilities for men and women, even with a bigger responsibility of women (chores, nursing and education of children) towards the family welfare, just by reason of performing traditional gender roles. Nevertheless, these differences are not perceived as being important when it comes to decisions and budget

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<sup>35</sup> Obviously, an ample discussion can develop around the definition of the family interest.

management in the family, situation in which an anti-individualist logic of the common interest of the family operates<sup>36</sup>. Hence results the emergence of the direct connection between power relations and decision-making within the family.

Simply put, this problem sums up to the following question: how could a person decide regarding certain aspects of the family life, that he has no knowledge of, nor responsibility? This question must be regarded as having equal implications for both men and women; its purpose is not that of assuming a quantitative logic in which decisions should be made by proportionally relying on one's contributions to the family welfare. On the contrary, the simple common management of decisions and resources that may be interpreted as affecting the development of partnership relations between the spouses can actually constitute a wall masking the inequities inside the family to the extent that they are substantiated on deeply different responsibilities depending on the gender. Although we are speaking of common budget and decisions made with mutual consent, in the context of a clear distinction of gender roles, it's difficult to understand "the other one" if precisely this demarcation between the "women chores" and "men chores" does not create a common basis for negotiation of family interests<sup>37</sup>.

Secondly, a problem arises regarding the **valorization of work and depersonalization of individuals inside the family**, mostly in the context in which we are speaking of a common budget which is formed by lumping together all the incomes of the family members, not a budget made depending on the common needs. Thus, we are talking about the thinking in which the individual loses his/her value in favor of the family. At the same time, the satisfaction of the paid work loses some of its intensity to the extent in which this model of decision-making and resource management actually supports the leveling of contributions, an insubstantial equalization this time around, which appears to impose the logic of 'each with their own abilities, each with their own needs'. I am not proposing a harsh, individualist criticism of the family, but I am suggesting that a basis should be formed for the common management of some problems, in order to provide support to the dependants (children, the elderly). Nevertheless, I would like to draw the attention on the extremes and on the possibility to balance and satisfy both personal interests and family interests. I find it problematic to abandon one's individuality, especially when referring to women, who are more

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<sup>36</sup> The possible explanations regarding the acceptance of these power relations in the family are: the development of affection relation between the family members and some specific needs resulting from them; the functionality of the principle "the least interested" – the partner who is least interested in the relationship and its management (including in terms of family management) is the one holding more power in the family; the theory of power based on resources – the influence in taking the decisions in the family is directly proportionate to the resources brought in the family (as we have seen in the current research, it is not supported) (Hepworth *et al*, 2010, p. 240);

<sup>37</sup> Even if the specialisation within the family is criticised in the studies bridging up the economy of gender, it continues to exist in reality and to transfer inequities in other areas, such as, in this case, the one of decisions and family budget management. (Blau *et al*, 1998, p. 40 – 45; Jacobsen, 1998, p. 73 – 79);

vulnerable due to the education of self-sacrifice that they received (Magli, 2003; Giligan, 1982, p.70).

Thirdly, the process of decision making in the family must also refer to aspects regarding the **efficiency, the optimal use of resources**<sup>38</sup>, which should leave a bigger maneuvering space to the ones performing and in charge of various actions involving the decisions and resource distributions.

Therefore, a second model of decision making and family budget management arises, which becomes a pragmatic solution to the problem asserted, **a model we have called the model of pragmatic normality** or "**As a woman I make my point better than he does**" / "**The decisions are made together, but, I, as a woman, manage the money**". The tension between the relatively low contribution of men in household chores and the situation when they have to decide with respect to these aspects is emphasized by references to the effort of making one's point, of convincing the partner, the spouse, regarding the need to manage the family resources in a certain way. Therefore, when I asked who decides regarding the management of the money in the family, beyond the design of the normative framework of making decisions mutually, but also the existence of a common family budget, the higher involvement of women in this process and even making their point has been regarded as fair. This fairness is originated in the fact that being in charge of the family welfare, by reason of the gender roles they must perform, women know better what the family interest is and how the mutual budget must be managed. We can thus speak of a renegotiation of the spousal reports with respect to family decisions, renegotiation bringing up also the efficiency measures of this process.

## References

\*\*\* Open Society Institute, *Gender Barometer 2000*;

\*\*\* UNFPA, *Women's Economic Empowerment: Meeting the Needs of Impoverished*, accessed in 19.05.2011, [http://www.unfpa.org/webdav/site/global/shared/documents/publications/2007/women\\_economic.pdf](http://www.unfpa.org/webdav/site/global/shared/documents/publications/2007/women_economic.pdf)

1. Băluță, Oana et al. (2007) *Gen și interese politice (Gender and Political Interst)*, Iași, Polirom;
2. Băluță, Oana et al. (2007) *Parteneri egali. Competitori egali, (Equal Partners. Equal Competitors*, Bucharest, Maiko;
3. Beneria, Loudres and Stimpson, Catherine R. (eds.) (1997) *Women, Households, and the Economy*, S.U.A, Rutgers University Press;
4. Berger, B. (2002) *The Family in The Modern Age: more than a lifestyle*, New Jersey, Transaction Publishers;
5. Berger, Peter and Luckmann, Thomas (2008), first ed. 1966 *The Social Construction of Reality (Construirea socială a realității)*, Bucharest, Art;

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<sup>38</sup> Joyce P. Jacobsen (1998) bring up to this end the benefits of family resources management (p. 68 – 73);

6. Blau, Francine D., et al. (1998) *The economics of Women, Men and Work*, third ed., New Jersey, Prentice-Hall;
7. Giligan, C. (1982) *In a different voice: psychological theory and women's development*, Boston, Harvard University Press;
8. Hepworth, D. H. et al. (2010) *Direct Social Work Practice: Theory and Skills*, Belmont, Brooks/ Coole, Change Learning;
9. Hollis, M. (2001), first published 1994 *Introducere în filosofia științelor sociale (The Philosophy of Social Science. An Introduction)*, Bucharest, Trei;
10. Jacobsen, J. P. (1998) *The Economics of Gender*, second ed., Massachusetts, Balckwell Publisher;
11. Lawrence, J. (2008) *The Budget Kit: The Common Cents Money Management Workbook*, fifth ed., New York, Kaplan;
12. Lerner, G., (1986) *The Creation of Patriarchy*, Oxford, Oxford University Press;
13. Magli, I. (2003) *Women and Self-Sacrifice in Christian Church: a cultural history from the first to the nineteen century*, Carolina, McFarland Company;
14. Miroiu M. (2004) *Drumul către autonomie (The Road to Auntonomy)*, Iași, Polirom;
15. Miroiu, M., State Men, Market Women. The Effects of Left Conservatism on Gender Politics in Romanian Transition, *Feminismo/s*, No. 3, June 2004, 207-234;
16. Pasti, Vladimir (2003) *Ultima inegalitate (Last Inequality)*, Iași, Polirom;
17. Ufomau U. F. (2004) *How to Become Extremely Successful in Business Management, Personal Management and Family Budget Planning*, S.U.A, UC&P;

# Imagined Communities: Nature and Nation in the Construction of Romanian National Identity

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**In this paper I'm trying to follow the role played by nature in the inception and evolution of the Romanian construct of national identity. More specifically, I am trying to explore the relationship between the natural landscape and the symbolic one in the construction of the Romanian national identity. The theoretical framework of my paper is provided by Benedict Anderson's concept of *imagined community* (1991), modeled by a particular approach, originated in the relatively new study area of environmental history. From a methodological standpoint, my paper belongs to the history of ideas (Lovejoy, 2001; Bevir, 2004), particularly as a history of nationalist thought approach.**

**Keywords:** imagined community, nature and nation, Romanian identity, history of ideas.

## 1. Introduction

The Romanian story of nation building has several particularities which, in my view, deserve further study from the theorists of nations and nationalisms. Amongst these particularities is the use of nature as a key part of the constructed national identity.

Interestingly enough, as I will try to show in my paper, the relation between nation and nature in the Romanian case is not a result of emerging capitalist relations, and therefore not a reaction to modernization. It was more or less the result of an

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intellectual contagion between Romanian intellectual elites and mainstream European discourses regarding nation and nationhood, adapted to embrace what was then a collection of local realities in terms of ethnic and linguistic particularities, popular traditions and mythology. In this respect, the emerging cultural artifact was not just simply an “invented tradition” as Hobsbawm (Hobsbawm and Ranger, 2000, p.3) defines it, but a more complex framework of pre-existing elements (re-)arranged in a specific manner in order to obtain the desired effect in terms of public awareness and/or consciousness, unity, affective sense of national identity, etc.

## **2. Dimensions of the Romanian discourse regarding nation and nationhood.**

In order to understand the role of nature in the Romanian construction of nation, I have to underline two main historical characteristics that have shaped this entire process. First, the political, cultural and religious factors and secondly, the intellectual background that constituted the basis of this construction.

The Romanian nationalist discourse took shape in two very different political and cultural realities, but is unified by a singular characteristic: its reactivity. Both in the Austrian Empire (in Transylvania) and in the Danubian Principalities (Walachia and Moldavia) the national discourse appeared as a reaction to a certain political reality: the exclusion from the political community in Transylvania, and the Ottoman Phanariote rule in the Principalities.

The Transylvanians were the first to develop a discourse concerning the Romanians as a nation, at the end of the 18<sup>th</sup> century, after the Union of the Orthodox Church in Transylvania with the Catholic Church of Rome in 1700. The particular statute of Transylvanian orthodox Romanians (and their subsequent political reaction) was defined since 1438, by the *Unio Trium Nationum* arrangement between the Transylvanian Estates: Hungarian nobility, the Saxon burghers and the Szeklers. In fact, the decision to accept the Union might also be perceived as a form of political negotiations – religious acceptance of the Catholic Supremacy<sup>40</sup> in exchange for political inclusion. It offered to at least part of the Romanians access to education and political rights, that will later produce an intellectual elite dedicated to furthering those rights by developing the concept of Romanian nation. What is particularly significant for the Transylvanian national movement is that not only it initiated the construction of the Romanian “imagined community” (Boia, 2001, p. 10), but that it will constitute, until the aftermath of the First World War a permanent influx of nationalist intellectuals for Walachia and Moldavia (in 1859 united to form Romania). Those intellectuals will be, in their turn, a major influence, contributing to the development of the national thought in the Principalities through their political, social or literary activity<sup>41</sup>.

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<sup>40</sup> In a largely protestant Transylvania.

<sup>41</sup> As was the case of Gheorghe Lazăr in Walachia or Vasile Bob (Fabian) in Moldavia an later, at the end of the 19th and the first half of the 20th century – Octavian Goga, Ioan Slavici, Liviu Rebreanu, Lucian Blaga, Iuliu Moisl, Onisifor Ghibu, etc.

The main directions of the Transylvanian national discourse were concentrated on the linguistic and historical arguments capable of defining the orthodox Romanians as a distinct nation (in the terms of the 1438 *Unio Trium Nationum*), therefore entitled to the same political and economical rights as the dominant ones. This small elite's struggle stretched from the end of the 18<sup>th</sup> Century (when the first *Supplex Libellus Valachorum Transsilvaniae* memorandum was addressed to the Habsburg Emperor Leopold the II<sup>nd</sup> by the Bishop Ignatie Darabant(Prunduș and Plăianu, 1994)<sup>42</sup>) until the years preceding the First World War.

On the other hand, Walachia and Moldavia experienced a different historical and political context, therefore the dominant discourse regarding nation and nationhood had a different form. But, nevertheless, it also was a reaction, not to a fast growing capitalist economy and to the societal changes that such a development might have brought, but to a political status quo – that of dependency to the Ottoman Empire (the suzerain power) at first and to the Tsarist Russia (the protector power) after 1829. The special relation that the two Danubian Principalities had with the Ottoman Empire since the middle ages, that statuaded internal autonomy and Ottoman suzerainty (Drace-Francis, 2006, pp. 15-25) had evolved in a peculiar regime based on vengality, that of the Phanariotes, characterized by the dominant presence of Greeks from Phanar in administration and power, leading to increased underdevelopment and instability in the two Principalities. This state of affairs provoked a series of reactions, from armed revolts to a string of memoranda initiated by the local nobles – the boyars – addressed to the imperial court in St. Petersburg. Nevertheless this started the whole process that will end up in removing the Phanariotes from power and, in the second half of the 19<sup>th</sup> century, will lead to the union of the two Principalities, thus forming the Romanian modern state.

The national political movement in the Principalities, apart from its autonomist-independentist orientation, had an equally important dimension focused on modernizing the two countries, which can roughly be identified as beginning with Dinicu Golescu's trips to Western Europe in the early and mid-1820'.

Regarding the intellectual influences that shaped the Romanian national discourse, in my opinion at least three major sources can be identified – an initial Austrian and German *aufklärung* influence in the Transylvanian movement (von Martini, von Sonnenfels, Christian Wolff, Baumeister<sup>43</sup>, etc) that was later completed by a lesser French illuminist influence (Voltaire, Montesquieu, or the Encyclopedists). This direction oriented the actions and literary activities of the members of the Transylvanian School in the sense that they have made a major emphasis on the

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<sup>42</sup> Who later will become an Imperial counselor.

<sup>43</sup> Translated into Romanian by Samuil Micu, one of the members of the Transylvanian School, in one of the first efforts to construct a literary Romanian language.

education of the Romanian population, disregarding the popular beliefs and traditions as simple superstitions<sup>44</sup>.

Later on though, a second and major intellectual influence emerged, that of the German romanticism, and the discourse regarding the Romanian nation had to reshape its original illuminist roots in order to adapt itself to the romantic vision regarding nation and nationalism (Mamulea, 2004). After 1848, this approach to nation became the mainstream ideological discourse, forging the national identity by following Herder's ideas to investigate and to exploit the "organic" culture in order to reveal the true spirit of the nation (Smith, 1998, p. 87; Johnson, 1996, pp. 130-131). Therefore, the Romanian ethno-cultural traditional community became the main source of inspiration in the development of the identity construction of the Romanian nation. Apart from language and history, the Romanian national identity was now discussed in terms of a specific set of unifying myths, traditions and spirituality, both in Transylvania and the Principalities.

Thirdly is the French intellectual influence. It was mainly concerned not so much with assessing or framing the national ethnic identity, but with the political aspects of forging the nation-state by using - so to speak - a "French revolutionary blueprint" – both in political program and in terms of the modernizing strategies. The French influence was a catalyst for the entire pro-western or European trends within the Romanian society, encouraging the abandonment of old oriental traditions and favoring the adoption of newly imported ones from the West (Boia, 2001, pp. 31-32; Stanomir, 2000, 8-10). This was particularly specific to the elites in Walachia and Moldova, predominantly educated in Paris.

In conclusion, we can identify at least three major intellectual influences<sup>45</sup> on the Romanian discourse regarding the nation until the First World War, of which the German and the French one flourished and fundamentally contributed to the creation of the modern Romanian nation-state. After 1859 these two main currents of thought coagulated the Romanian political life, defining the ideological positions of the two major political parties of the pre-war era – the Conservatives and the National-Liberals: cultural organicism vs. Occidentalism and modernization, agrarianism vs. industrialism

### **3. Nature and nation – imagining the Romanian national identity.**

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<sup>44</sup> Although some of those traditions were occasionally used as arguments concerning the Latinity and historical continuity of the Romanians in Transylvania.

<sup>45</sup> Although not the only ones. During the first half of the 19th Century there was also a significant Russian influence, the best example of that probably being Col. Lăcusteanu's memoirs, composed around the centrality of the orthodox faith and its relation to the Russian Empire.

Mihail Kogălniceanu's 1840 program of the *Dacia Literară* literary magazine stated, amongst other things, that national literary works should be inspired by national history and traditions, noting that every author is free to promote the various customs and linguistic particularities of his/hers native county as long as the resulting work will not affect the unity of the national language and literature (Kogălniceanu, 1998, p. 146). This will constitute the central ideological statement of Romanian national literary movement for the next decades, channeling the local literary production towards exploring the popular traditions and mythologies, in order to refine the Romanian national identity (Bălcescu, 1845, cited in Perpessicius, 1983, p. 394). A significant number of romantic revolutionary intellectuals went into the countryside searching for the holy grail of Romanian cultural essences. There they hoped to find the quintessential Romanian peasant, the archetype that will best symbolize the Romanian national exceptionalism. A tremendous work of gathering local stories, songs and poetry begun, doubled by a refined work of analysis and classification of major themes, myths and national symbols extracted from the organic, unaltered peasant communities, a work that will continue to this day. And one of the most relevant of those discoveries was the special relation that the Romanian peasant had with the environment he lived in.

A good example of that is provided by a folk story from the small village of Șerbănești, in Oltenia region (historically also known as Little Walachia): during the 1880's the village was bordered by an ancient forest, called by the locals *Bunget* (meaning forest in ancient Romanian), that stretched all the way to the Danube river. The local land administrator started to cut down the trees, in spite of the local's warnings that the forest is cursed. The land administrator died of an inexplicable death. He was replaced by another administrator that continued to cut the trees. He had a horse accident and died while inspecting the workers... As a result, the locals created a poem on music – a ballad (*baladă*) – in which they moaned the forest, and a couple of verses are particularly interesting:

Of, săracă pădurea, când ne-adăposteam în ea,  
Multe vite că trăia („Oh, poor forest, when we took shelter in it/ Many of  
the cows lived” (Ilie, 2010, pp. 192-193)).

This story reflects the organic communion of man and nature facing the vicissitudes of history that constitutes the starting point for the construction of the Romanian imagined community.

There is no doubt that the romantic background of the Romanian intelligentsia of the era had somewhat idealized and exacerbated this relation, transforming it in an identity marker. Perhaps the best example of that is *Miorița*, which is considered to be both the epitome of the national folk poetry and the best expression of the national character, defining the Romanian exceptionalism in terms of a unique pastoral culture surrounded by agricultural cultures (Bubociu *et al.*, 1966, pp. 295-296; 299-300). The ballad was written down by one of Kogălniceanu's friends and collaborators, Vasile Alecsandri, who compiled and refined several variants of the poem in order to produce a literary version. Nevertheless, the ballad had popular origins, and by publishing it, and later due to its special statute it gained in Romanian culture, *Miorița* also brought into light the nature-community relation present in folk literature. The organic ancestral

community was thought to have a particular relationship with the natural world, not in terms of coexistence but of complementarity, in the sense of a symbiotic relationship that on one hand assures the protection of the natural realm and on the other the safety of the community. In a romantic manner, the Romanian traditional communities were considered as being part of the natural world, perfectly integrated and therefore in possession of a special, almost mystical knowledge and understanding of the world.

This conception regarding the national ancient and specific *welanschauung* was later refined in the literary work of Mihail Eminescu, poet and conservative publicist during the second half of the 19<sup>th</sup> Century. For him, “nationhood is for a people what originality is for the individual” (Eminescu, 1871, cited in Murărașu, 1994, p. 179). His political writings favored the ethos of an idyllic antimodern, decentralized and medievalist organic community. The organic localism was used as an ideological counterweight to the pro-western, French-inspired modernizing discourse of the National Liberal Party, and seen as the locus of national identity. It’s not about a particular class that Eminescu was writing about: peasantry and local nobility were seen as parts of the same pure expression of national solidarity. And this solidarity is not limited to the human community, but includes nature as integral part of the national fiber, as is maybe best illustrated by some verses from *Scrisoarea a III-a (The 3rd Letter)* poem, where Mircea the Great, Voivod of Walachia has a dialogue with Bayazid Ilderim (*Yldrim*), the Ottoman sultan:

“Eu? Îmi apăr sărăcia, și nevoile și neamul.../ Și de-aceea tot ce mișcă-n țara asta, râul, ramul, / Mi-e prieten numai mie, iară ție dușman este, / Dușmănit vei fi de toate făr-a prinde chiar de veste” (“But I defend the poverty and the needs of a struggling land /And therefore all the rocks and streams and hills that guardian stand/And all that grows and moves and breathes to me is ally true,/While every blade of grass and stone is enemy to you”) (Eminescu, 1978)

This direction of thought finally was crystallized in the interwar period by Lucian Blaga, philosopher of culture, one of the most original Romanian thinkers in the 20<sup>th</sup> Century. Influenced by the recent studies done by psychologists and psychoanalysts, Blaga formulated the theory of the “spatial horizon of the unconsciousness”. Blaga understands the unconsciousness as a psycho-spiritual reality highly structured and relatively self-sufficient (Blaga, 1944, p. 164). Therefore, he identifies what he calls a “matrix space” as a determining factor for the stylistical structure of a culture or spirituality, either individual or collective. This is exclusively a mental or spiritual place defining a culture, irrespective to the physical, geographical space, fact that accounts in Blaga’s opinion for the coexistence in the same territory of fundamentally different cultures (that have different spatial horizons). It is an ideal landscape, a nature that transcends from the real, contingent space into the immutable spiritual one. As a result of this, Blaga identifies the Romanian matrix space, calling it “the *mioritic* space”, after the ballad mentioned above and defined it as “a high and indefinitely undulated matrix space, charged with the specific accents of a certain sentiment of destiny” (Blaga, 1944, p. 167). A major emphasis is thus put on the relation with the nature, and Blaga sees Romanians as having a religious respect towards nature, and considering it to be a sin to interfere with its order. Maybe the best illustration of the relation nature-nation in Blaga’s work is illustrated by his analysis of the Romanian

religious architecture, specifically the outside mural paintings on churches – “the original role of the frescos was that of a revelation taking place within the privileged space of the church. The frescos, by gushingly appearing on the outside walls, prevent the murals of the church to be an insulator from the nature” and therefore “the nature will be understood as a vast fresco leading to revelation” (Blaga, 1944, pp. 260-261).

Finally, nature and church are confounded (Blaga, 1944, p. 261).

## References

1. Lovejoy, Arthur, (2001) *The Great Chain of being. A Study of the History of an Idea*. 22nd printing, Cambridge and London, Harvard University Press.
2. Bevir, Mark (2004) *The Logic of the History of Ideas*. Cambridge, Cambridge University Press.
3. Hobsbawm, Eric and Ranger, Terence (eds.) (2000), *The Invention of Tradition*. Cambridge, Cambridge University Press.
4. Boia, Lucian (2001), *History and Myth in Romanian Consciousness*. Budapest, CEU Press.
5. Prunduș, Silvestru Augustin and Clemente Plăianu (1994), *Catholicism și Ortodoxie Românească – Scurt istoric al Bisericii Române Unite (Catholicism and Romanian Orthodoxy – Short History of the United Romanian Church)*. Cluj-Napoca, Ed. Viața Creștină.
6. Drace-Francis, Alex (2006) *The Making of Modern Romanian Culture: Literacy and the Development of National Identity*. London&New York, Tauris Academic Studies.
7. Mamulea, Mona (2004) „Toposuri Romantice în fundamentarea filosofică a naționalismului românesc. Momentul 1848”, în *Revista de Filosofie*, t.LI, 1-2 Ianuarie, pp. 201-223.
8. Anthony D. Smith, (1998) *Nationalism and Modernism*. London&New York, Routledge.
9. Johnson, Lonnie, R. (1996) *Central Europe. Enemies, Neighbors. Friends*, New York&Oxford, Oxford University Press.
10. Stanomir, Ioan (2000) *Reacțiune și conservatorism*. București, Nemira.
11. Mihail Kogălniceanu (1998) *Scriseri literare, sociale și istorice*. Chișinău, Litera.
12. Perpessicius, (1983) *Eminesciana*. Iași, Ed. Junimea.
13. Ilie, Dumitru (2010) *Șerbănești. Pagini de monografie*. Slatina, Ed. Casa Ciurea.
14. Bubociu, Octavian *et al.* „Folklore and Ethnography in Rumania”, in *Current Anthropology*, Vol. 7, No. 3 (Jun., 1966), pp. 295-314.
15. Murărașu, Dumitru (1994) *Naționalismul lui Eminescu*. București, Ed. Pacifica.
16. Eminescu, Mihai (1978) *Poems*. București, Ed. Eminescu.
17. Blaga, Lucian (1944) *Trilogia Culturii*. București, Fundația Regală pentru Literatură și Artă.
18. Anderson, Benedict (1991) *Imagined Communities. Reflections on the Origin and Spread of Nationalism*. Revised edition, London&New York, Verso.

# Territorial Representations and Subnational Mobilization in the EU: The Case of Turkish Subnational Entities

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## 1. Introduction

This paper seeks to explain territorial representation in the EU by giving a particular emphasis on the sub-national mobilization in the EU context. In the relevant literature, one can find several ways for sub-national entities (SNEs)<sup>46</sup> to engage with the EU institutions to represent their regional interests. Among others, establishing the regional offices (ROs) in Brussels and joining the inter-regional networks (IRNs) are the mostly used channels for SNEs. The rising amount of ROs and of IRNs in Brussels has become the subject of considerable academic attention since the 1980s and used as one of the justification points for the multi-level governance (MLG) approach. There are more than 230 ROs and 40 IRNs up to date operating in Brussels trying to influence EU policy, lobbying, creating networks, gathering information, and securing the EU funds. Although the political influence of SNEs in European policy-making process has been contested in academe, the ever growing engagement of SNEs from different member (and candidate) states is considered as a key of territorial representation indicating sub-national mobilization in Europe and reinforcing the third-level politics in the multi-layered system of European governance. While scholars analyzed the situation for EU-15 and later for the CEECs, there is no work for the current candidate countries since sub-national mobilization in the European context is relatively new for these countries. In seeing this lacuna in the literature, this paper analyzes the situation for Turkish SNEs. After this brief introduction to subnational mobilization literature (section 2), methodological considerations are briefly outlined (Section 3). The remainder of this paper then puts the concept of SNEs in Turkish context and examines how national context affect on SNEs' activities (Section 4). It

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<sup>46</sup> The concept of 'subnational level' is in this paper refers to the intermediate level of government, where we understood 'intermediate' as referring to those subnational levels located directly below national level but above the local level. For a discussion on the use of the term 'region', 'subnational level', or 'third', 'meso' and 'intermediate level', see, inter alia, (Sharpe, 1993), (Jeffrey, 1997), (Bulmann, 1997), (Keating, 2008), (Marks et al, 2008). SNEs on the other hand are seen as an umbrella definition under which many diverse authorities including politicians, bureaucrats, employees of national states, sub-national self governments, trade unions, regional development agencies and municipalities. As a unit of analysis, this paper considers the situation for regional development agencies and municipalities.

subsequently gives example from the level of mobilization of Turkish SNEs through the EU arena and examines possible effects which cause a variation among SNEs in Turkey (Section 5). The final section concludes and makes suggestions for the future studies (Section 6).

## **2. Subnational Mobilization and Territorial Representation in Europe**

Mobilization of sub-national entities (SNEs) across the European Union (EU) arena and their representation in Brussels has become a vibrant discussion in academe since the early 1990s. Together with two interrelated structural effects of globalization and decentralization, developments throughout the integration process have advanced the changing nature, and growing importance of SNEs' activities in Europe over the last three decades (see Keating and Jones, 1995). Among others<sup>47</sup>, the Maastricht Treaty, for many scholars, could be evaluated as the turning point for SNEs' involvement since it was a solid recognition of the multi-layered structure of the EU governance (Hooghe, 1995; Hooghe and Marks, 2001). All these developments have not only underpinned the power shift towards Brussels making many SNEs reorient their activity towards the EU level but also fortified channels for SNEs to directly interact with EU institutions and represent their territorial interests to the broader audience in Brussels. Although sub-national mobilization and territorial representations could be seen under different guises (see Hooghe, 1995), establishing the regional offices (ROs) and joining the inter-regional networks (IRNs) in Brussels are the mostly used channels for SNEs.

Nowadays, large amount of SNEs are operating in Brussels to influence EU policy, lobbying, creating networks, gathering information, and securing the EU funds (Marks et al 1996). The ever growing engagement of SNEs to the EU institutions and their presence in Brussels has continued with the enlargement process as territorial representation and mobilization of SNEs are not limited to the EU members (see Moore, 2008a). Although the political influence of SNEs in European policy-making process has been contested, many scholars acknowledge that ROs and IRNs in Brussels as a key of territorial representation indicating subnational mobilization in Europe and reinforcing the third-level politics in the multi-layered system of European governance (Hooghe, 1995). Yet, there is a variation in the level of mobilization among regions and cities in member (candidate) states and substantial divergence among SNEs' activities in the EU based on their motivations. To analyze what causes this uneven pattern of mobilization between and within the member states, multitude factors mainly constraining or enabling SNEs to pursue their activities on the EU level have been listed. Scholars by and large pinpointed the national context as the key source of variation and highlighted the importance of the national context as the main explanatory variable which underpins the mobilization towards the European arena

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<sup>47</sup> Other relevant developments include: the completion of the internal market; the revise treaties of Single European Act, the Maastricht treaty; the subsequent reforms of structural funds and Cohesion policies; the launch of the principles of partnership, additionality and subsidiarity; the creation of the Committee of Regions (the CoR); right to attend the Ministry of Council meetings for some privileged regions (Article 213).

(see for instance, Jeffrey, 1997; 2000; Moore, 2008a/b). Scholars have methodologically focused on cross-country case selections by giving a particular emphasis on the differences in the national context, i.e. party politics, constitutional differences, the devolution of competences to the lower level, and in the region specific dimensions, i.e. associational culture, regional distinctiveness, the level of legitimacy, the entrepreneurial capacity of regions, size and financial sources of SNEs (inter alia Marks et al 1996, Jeffrey, 1997; 2000; Bulmann; 1997; Tatham, 2008; 2010).

To a great extent theoretical and empirical discussion is also centred in the context of the EU's regional policies and its related financial incentives, better known as the structural funds (Hooghe and Marks, 2001) for explaining the mobilization of SNEs. Many scholars have so far chosen their empiric case selection from the EU-15 countries (Keating and Jones, 1995; Jeffrey, 1997; 2000; Moore, 2008a; Tatham, 2008; 2010), and later from CEECs (Kungla and Kettunen, 2005; Sapala, 2008; Moore, 2008b; Tatar, 2009). Yet, there is no work for the current candidates. Consequently, based on subnational mobilization literature and on findings from survey over the 85 SNEs in Turkey and semi-structured interviews with civil servants in Ankara, this paper analyses the level of Turkish SNEs' engagement with the EU through opening up ROs and participating IRNs in Brussels and considers the possible factors which cause a variation among Turkish SNEs' mobilization across the European arena.

### **3. Methodology**

Apart from the relevant literature review based on secondary sources and document analysis, I will try to incorporate semi-structured interviews in Ankara and to utilize the survey findings which have been implemented over 107 Turkish SNEs (RDAs, Metropolitan Municipalities and City Municipalities). The selection of interviewees was composed of officials in the State Planning Organization (SPO), the Ministry of Interior, General Secretary for EU (GSEU), the Union of Turkish Municipalities, and the EU Delegation in Ankara. Those institutions were targeted because they are the key institutions and responsible for Turkey's adaptation to the EU's regional policy. Although interviews were semi-structured and asked to every interviewee, they were completely free in the way they answered the questions.

As for the survey, it was conducted as a part of PhD research at the University of Sheffield and aimed to analyze the mood of Turkish municipalities and RDAs on the issue of sub-national mobilization across the European arena. From the descriptive standpoint, it was designed to be implemented over 65 city municipalities (CMs), 16 metropolitan city municipalities (MCMs) and 26 regional development agencies (RDAs) in Turkey. After designing the survey, it was piloted with six people in order to test the survey and make any necessary amendments. It has subsequently been distributed to the most relevant person in selected organizations by checking the organizations' formal administrative structure and getting help from the human resources unit and/or operator. By finding the relevant persons in targeted institutions, the survey was explained to each participant on the phone. In so doing, it is aimed to get the highest response rate and to provide the reliability of the survey result. 51 out of 65 city municipalities (% 78,4); 14 out of 16 metropolitan municipalities (% 87,5) and 20 out of 26 RDAs (%76,9) equalling to 85 SNEs (%79,4) took part in the survey

conducted in February and March, 2011. Although the questionnaire consisted of 16 questions divided to 3 thematic groups, I will only use findings relevant to this paper.

#### **4. Subnational Entities in Turkish Context**

As in the case of many other unitary states in the EU, the centralized national tradition of Turkey inherited from the Ottoman Empire and the early Turkish Republic affected immensely on local units not to have necessary competencies and political power in Turkish state (Ertugal, 2005; Dulupçu, 2005; Keyman and Koyuncu; 2005). More importantly, starting from the Ottoman era up to date, periphery was seen under the tutelage of the centre impeding the creation of independent cities like those in some part of the Europe (Göymen, 1999: 68). With the exception of the authority for the development for the South Eastern Anatolian region (GAP), there were no implementing structures outside Ankara. Territorial administrative units (provinces and districts) have very limited powers: their functions have been until present essentially executive, and based on the principle of deconcentration (Ertugal, 2005: 25; Okçu et.al, 2006). Due to the lack of experience, administrative and institutional insufficiency together with the reluctance of the centre as gatekeeper, local units in Turkey have faced difficulties in playing a large a role in regional policy or acting as autonomous entities.

Civil servants in the State Planning Organization (SPO) are well aware that being sole responsible for the entire Turkish regional policy and development is not possible due to the geographical size of Turkey<sup>48</sup>. They commonly acknowledged that since the beginning of 2000, not only the EU but also other international organizations (like IMF, OECD) and to some extent bottom up demands coming from the mostly industrialized and westernized cities such as Izmir and Istanbul have required from the centre to devolve some competences to the lower level<sup>49</sup>. Long before 2000, it is also stated in the first five year development programme (1963-1967) that there is a need for regional units like RDAs in between centre and local in order for developing regional plans (SPO, 2007). Although some regional plans were developed by SPO on an ad hoc basis, these plans and regional arrangements were never realized because of unstable economic and political environment in Turkey as well as insufficient experts and available data in regions. For civil servants especially in SPO, the real problem was to find proper institutions to give this responsibility and to make sure that these institutions are able to control regional plans without politicization and direct national funds without corruption<sup>50</sup>. This highlights the ownership problem within the local level, i.e., who is going to control this process; to what extent these institutions become independent from the centre, so forth. Although this picture has dramatically changed after the creation of Regional Development Agencies (RDAs) and with the local reform process as a compliance to the EU's regional policy, it is early to predict that the change in Turkish traditional governance lead a full-fledged regionalization that the

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<sup>48</sup> Interviews in SPO in April 2011

<sup>49</sup> Interviews in SPO in April 2011

<sup>50</sup> Interviews in SPO in April 2011

outcomes of this radical restructuring within Turkish administrative system which give spaces to SNEs to aggregate their interests on the European arena.

Finding an ownership like RDAs on regional level cannot immediately solve problems as institutionalization process takes time. Apart from two RDAs which were set up in 2006, the foundation of these regional institutions is a recent phenomenon in Turkey as the rest of RDAs have only started to operate after 2008. It is extremely difficult for them to become an interlocutor for their regions as there are wide array of actors or institutions having a different set of agenda in their designated territory. State elites in SPO pointed out that except from Istanbul, Izmir and Ankara, other RDAs consist of 3 to 6 cities so it is extremely difficult, albeit not impossible, to bring all these institutions and actors from different cities together as this overlapping agenda undermines region's ability in order for a creation of common regional interests or goals<sup>51</sup>. Similarly, a general secretary of one RDA commented that if you cannot bring together stakeholders and envisage goals for any given region, then you cannot follow any strategy such as creation of offices in Brussels, interacting with other regions within and outside Turkey<sup>52</sup>. It is therefore difficult for Turkish RDAs to gather regional wherewithal in order to conduct political and cultural, even in some cases, economic aspirations on the EU level because a possible conflict between actors and institutions or even cities could undermine the regional identity and cooperation.

A lack sense of regional identity in fact underlines another chronological problem in Turkish national contexts. Interviewees with civil servants in Ankara revealed the sensitivity towards the concept of region, regionalism and regionalization<sup>53</sup>. Aktar (2005) sarcastically considers that the concept of the region is ill-fated in Turkey as the word "*bölge*" derives from the root "*böl*" which means "divide", which echoes division and secession. Accordingly, state bureaucrats act as a gatekeeper in order to control SNEs' access to the EU arena. As one expert stated in SPO,

'as long as they coordinate with the centre, RDAs can go wherever they want, even to the space. As long as we know what they are aiming, what they want from this activity, we (SPO) support them. However, as a unitary state, we need to have one voice outside and we have foreign ministry which is responsible for foreign activities. Apart from diplomatic issues, RDAs can do whatever they want'<sup>54</sup>.

This is a typical reflex for any centralized state as they are preferred to be seen as an united and integrated country to the outside world. It is explicitly stated in Article 123 of the Constitution that national, provincial, urban, and rural administrations should function in unity and coherence in accordance with the rule of unitary state in order to maintain integrity in public administration in terms of organizations and duties (cited

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<sup>51</sup> Interviews in SPO in April 2011

<sup>52</sup> Unofficial interviews in Karacadağ RDA, Diyarbakir, in March 2011

<sup>53</sup> Interviews in SPO, in General Secretary for EU affairs and in Ministry of Interior Affairs in April 2011

<sup>54</sup> Interview with Burcu Diraor in SPO, in April 2011

in Okçu et al, 2006). More importantly, the Article 3335 regulates a provision for whole non-state actors who wish to operate abroad. According to this law, any networking with foreign domestic institutions and establishment of an office in foreign countries is subject to the permission of the council of ministers in Turkey<sup>55</sup>. In a nutshell, the legacy of statism, the fear of separatism, some legal issues and ownership problem at the regional level portray Turkish national context for SNEs. All these factors to a certain degree impact on Turkish SNEs not to have sufficient competences and political and economic power for their engagement with the EU institutions and territorial representation outside the country.

## 5. Mobilization of Turkish Subnational Entities in the EU

Although the above discussion showed that national context in Turkey does not provide enough spaces and necessary competences for the activities of SNEs, there are some SNEs which have already established some form of mobilization and territorial representation through the participation of the IRNs and/or the creation of ROs in Brussels. According to survey findings, while 62,4% SNEs are not involved in any IRNs' facilities, 32,9% SNEs on the other hand are engaged with at least one IRNs (See table 1). The striking point is that with 80% participation rate new born RDAs brought dynamism to Turkish SNEs' engagement to the IRNs. The level of participation from city municipals and metropolitan municipalities are 15,7 % and 28,6%, respectively.

	City Municipals	Metropolitan Municipals	RDAs	<b>Total</b>
I don't Know	3.9%	14.3%	.0%	4.7%
No	80.4%	57.1%	20.0%	62.4%
Yes	15.7%	28.6%	<b>80.0%</b>	32.9%
N	51	14	20	85

**Table 1:** Conducting relation with any inter-regional organization in the EU

As for the setting up office in Brussels, the Turkish case has hitherto showed the low level of mobilization. Two ROs have so far been set up by the municipalities of Istanbul and of Yalova in 2008, respectively. The municipality of Yalova has closed its Brussels office after only one year because of legal (article 3335) and economic problems<sup>56</sup>. With a population of 13 million, Istanbul is one of the biggest metropolises

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<sup>55</sup> Interview in the Ministry of Interior in Ankara, in April 2011

<sup>56</sup> Phone interview with Mr. Hasan Soygüzel (General Secretary for Yalova City Council) and Mrs. Gül Gönül Bozoglul (EU expert in Yalova Municipality) in April, 2010

in Europe and bigger than 17 EU member states in terms of population but it has just opened up the office in 2008, though staffed by only one person. Survey result reveals that opening up a regional office in Brussels is also on the agenda of two municipal cities, two metropolitan cities and two RDAs. While nearly half of Turkish SNEs do not consider opening an office in Brussels, almost one-third of respondents have no idea about opening an office in Brussels (see Table 2).

	<b>City Municipals</b>	<b>Metropolitan Municipals</b>	<b>RDAs</b>	<b>Total</b>
I don't know	9.8%	21.4%	15.0%	12.9%
Never heard	41.2%	14.3%	10.0%	29.4%
No, don't want to open	45.1%	42.9%	65.0%	49.4%
Yes, consider to open later	3.9%	14.3%	10.0%	7.1%
Yes, already have one	.0%	7.1%	.0%	1.2%
<i>N</i>	51	14	20	85

**Table 2:** Considering to set up an office in Brussels

One of the most obvious reasons for this variation among different SNEs in Turkey could be seen that the size, human and financial sources of SNEs. As one expert from the foreign relations department stated,

‘You must be too powerful and know how to lobby in Brussels. Turkish municipalities, except for some big metropolitan municipals, such as Istanbul, Ankara, and Izmir do not need to be there as they are too small to conduct any activities. Union of Turkish Municipalities already applied to the ministry of interior affairs for opening up an office in Brussels. After the next election in 2011, we will be there to represent all Turkish municipalities’<sup>57</sup>.

This statement underlines one of the biggest problem for Turkish SNEs, in particular city municipals, as their size and economic resources are not sufficient for having a presence in Brussels. It was also difficult for them to pay membership fees for the participation of inter-regional networks. For instance, the survey results show that only one-fourth of Turkish SNEs (24, 7%) have allocated financial resources to represent their cities or regions outside Turkey (Table 3).

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<sup>57</sup> Interview with Bahar Ozden, the Union of Turkish Municipalities, in April 2011

	<b>City Municipals</b>	<b>Metropolitan Municipals</b>	<b>RDAs</b>	<b>Total</b>
I don't know	9.8%	7.1%	.0%	7.1%
No	70.6%	50.0%	75.0%	68.2%
Yes	19.6%	42.9%	25.0%	24.7%
<i>N</i>	51	14	20	85

**Table 3:** Resources allocated for representation

Many cities or regions seeking an active involvement in sub-national mobilization are located in relatively rich regions and are more interested in inter-regional networks compared to other regions or cities in Turkey. This point supports that only actors with valuable resources can participate as evident from the strategies of bigger and financially more capable municipalities in Turkey where European affairs are part of everyday work. Although Istanbul, Izmir, Bursa, Ankara, Kocaeli, Eskisehir and Yalova are representing the most developed cities in Turkey in terms of socio-economic development<sup>58</sup>, financial and human resources, the participation of Şanlıurfa, Kahramanmaraş and to some extent Gaziantep can be seen as an example of entrepreneurial capacity of the mayor. Interview in the Union of Turkish Municipalities showed that a visionary mayor can be a good interlocutor for their city and mobilize their interests to the European arena or other international arena regardless of their size, financial and human sources<sup>59</sup>.

There is however no study in this field until now and little information about the behaviour of local and regional actors in Turkey to show cross-regional differences. Some scholars point out some existing problems within regions and local units such as the insufficiency of economic sources and human sources at the local level; the low level of social capital at the regions (Duluççu, 2005); the lack or partial experience of local governance (Köker, 1995; Çelenk, 1999); mistrust among actors involved in the governance process (Keyman and Koyuncu, 2005; Ertugal, 2005). Yet, there is no systematic information to bring to bear on Turkish case, largely because the phenomenon is so recent and dynamic. It is also important to note that there is no clear membership prospect for Turkey and the relation with the EU has become strained especially after 2008, which may impact on some SNEs' behaviour not to align

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<sup>58</sup> SPO (2003) conducted a research to examine the development ranking of cities and statistical regional units (NUTS2) in order to collect regional data, analyze socio-economic differences and determine the framework for regional plans. According to this study, cities are ranked as first, second, third, fourth and fifth. While the first refers to the most developed regions or cities, the fifth considered as the less developed.

<sup>59</sup> Interviews in the Union of Turkish Municipalities, in April 2011.

themselves with the EU institutions or have a presence in Brussels. All in all, it is for now difficult for researcher to gauge Turkish SNEs' motivations and attitudes toward the mobilization and find out possible problems which cause a variation.

## 6. Conclusion

This paper showed the importance of national context for the activities of SNEs in the EU arena. The legacy of statism, the fear of separatism, some legal issues and ownership problem at the regional level portray Turkish national context for SNEs. Accordingly, Turkey represents a hard case for subnational mobilization across the European arena as the subnational tier throughout its history has been remained weak up until the recent development during the EU accession process. There has been a radical change in its regional policy resulted in the creation of new territorial arrangements between local and central level as a compliance to the EU accession process. Even if it is too early to predict that the outcomes of this radical restructuring within Turkish administrative system leads a full-fledged regionalization giving spaces to SNEs to aggregate their interests on the European arena, one can argue that RDAs could bring regional stakeholders together in order for gaining fund, networking, lobbying on the European arena. As those institutions have more experts and financial sources than some other city municipals and metropolitan areas. Yet, they are now on the way for institutionalization and learning process. Today, the main priority of all Turkish RDAs is to understand the potential and the capabilities of actors and institutions in their region and collaborate with them so as to envisage regional plans or goals<sup>60</sup>.

With regard to the situation for municipalities, there are some metropolitan municipalities and to lesser extent city municipals started to mobilize across the European arena. This has so far been restricted with the richer and stronger municipalities, though visionary mayors have also established relations with some inter-regional organizations. In so far as the negotiations proceed, one can assume that mobilization across the European arena will correspondingly increase in the long run. Given that Turkey's EU membership is not on the immediate horizon, Turkish SNEs might able to reinvigorate Turkey's EU candidacy. All in all, it can be argued that the issue of sub-national mobilization is yet new phenomena for Turkish case. There is a need for further studies to delve deeper into this subject in order to analyze the behaviour and attitudes of Turkish SNEs' on the issue of mobilization and their foreign activities in order to find out what Turkish SNEs want from these engagement; what causes variation in their level of mobilization; which factors are prominent for the effective mobilization.

## References

1. Aktar, C. (2005) 'EU's Regional Policy and Kurdish Question', available at <http://www.ovimagazine.com/art/3006>, (Accessed on the 19<sup>th</sup> of November, 2009).

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<sup>60</sup> Interviews in SPO in April 2011

2. Bulmann, U. (1997) 'The Politics of the Third Level', in C. Jeffery (ed). *The Regional Dimension of the European Union: Towards Third Level in Europe?* London: Frank Cass.
3. Çelenk, A.A. (2009) 'Europeanization and Administrative Reform: The Case of Turkey'. *Mediterranean Politics*, 14 (1): 41-60.
4. Dulupçu, M.A. (2005) 'Regionalization for Turkey, an Illusion or a Cure?' *European Urban and Regional Studies* 12 (2): 99-115.
5. Ertugal, E. (2005), 'Europeanization of Regional Policy and Regional Governance: The Case of Turkey', *European Political Economy Review*, 3 (1): 18-55.
6. Göymen, K. (1999) 'Türk Yerel Yönetiminde Katılımcılığın Evrimi: Merkezizetçi Bir Devlette Yönetişimin Dinamikleri' (the Evolution of Participation in Turkish Local Administration: the Dynamics of Governance in a Centralized State), *Amme Idaresi Dergisi*, 32 (4): 67-83.
7. Hooghe, L. (1995) 'Subnational Mobilisation in the European Union', in J. Hayward, *The Crisis of Representation in Europe*, London: Frank Cass & Co. Ltd.
8. Hooghe, L. & Marks, G. (2001) *Multi-Level Governance and European Integration*, Lanham: Rowman and Little Field Publishers.
9. Jeffery, C. (1997) *The Regional Dimension of the European Union: Towards a Third Level in Europe?*, London: Frank Cass.
10. Jeffrey, C. (2000) 'Sub-National Mobilization and European Integration: Does it Make Any Difference?', *Journal of Common Market Studies*, 38 (1): 1-23.
11. Keating, M., Jones, B. (eds) (1995) *The European Union and the Regions*, Oxford: Oxford University Press.
12. Keyman, E.F, Koyuncu, B. (2005) Globalization, Alternative Modernities and the Political Economy of Turkey, *Review of International Political Economy*, 12 (1): 105-128.
13. Köker, L. (1995) 'Local Politics and Democracy in Turkey: An Appraisal', *the Annals of the American Academy of Political Social Science*, 540: 51-62.
14. Kungla, T & Kettunen, P. (2005) 'Europeanization of Sub-National Governance in Unitary States: Estonia and Finland', *Regional and Federal Studies*, 15 (3): 353-378.
15. Marks, G., Nielsen, F., Ray, L. Salk, J.E. (1996) 'Competencies, Craks, and Conflicts: Regional Mobilization in the European Union', *Comparative Political Studies*, 29 (2): 164-192.
16. Moore, C. (2008a) 'A Europe of the Regions vs. the Regions in Europe: Reflections on Regional Engagement in Brussels', *Regional and Federal Studies*, 18 (5): 517-535.
17. Moore, C. (2008b) 'Beyond Conditionality? Regions from the New EU Member States and their Activities in Brussels', *Comparative European Politics*, 6: 212-234.

18. Okçu, M., Gul, H., & Dulupçu, M.A. (2006) 'Turkey Towards the EU: In-Between State Centrism and Multi-Level Governance', Conference Paper Presented at 6<sup>th</sup> European Urban and Regional Studies Conference, Denmark, 21-24 September, 2006.
19. Sapala, M. (2003) 'Sub-national Mobilization in the European Integration Process: Eurofitness of Polish Regional Authorities', Available at <http://unpan1.un.org/intradoc/groups/public/documents/nispacee/unpan009032.pdf> (Accessed on, 27th November, 2009).
20. SPO (2003) 'İllerin ve Bölgelerin Sosyo-Ekonomik Gelişmişlik Sıralaması Araştırması' (Examination of the Socio-economic Development Ranking of Regions and Cities), *SPO 2671*: Ankara.
21. SPO (2007) 'Yeni Bölgesel Gelişme Politika ve Uygulamaları' (New Regional Policy and Implementations), *Bölgesel Gelişme ve Yapısal Uyum Genel Müdürlüğü (General Directory of Regional Development and Structural Adjustment)*: Ankara.
22. Tatar, M. (2009), 'The Impact of the European Union Regional Policy on Sub-National Mobilization in a Unitary State: The Case of Estonia', *Understanding and Shaping Regions: Spatial, and Economic Futures*, RSA Annual Conference, Leuven.
23. Tatham, M. (2008) 'Going Solo: Direct Regional Representation in the European Union', *Regional & Federal Studies* 18 (5): 493-515.
24. Tatham, M. (2010) 'With or Without You'? Revisiting Territorial State-Bypassing in EU Interest Representation, *Journal of European Public Policy*, 17 (1): 76-99.

# An Ethno-linguistic Comparison between Food Idioms in Romanian and Spanish

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**Aim of research:** The aim of my research is to scrutinize the field of contrastive Romanian and Spanish food idioms in order to establish the cultural implications of phraseological units. Nourishment is not only a fundamental condition of our existence, but it is also part of a system of rules belonging to social collectivities and reflects popular mentality (Coşeriu’s *language-specific ethno-linguistics*). **Methodology/Approach:** The present study is based on an inductive investigative approach. The Romanian and Spanish food idioms are collected from bilingual and monolingual dictionaries and are examined in order to establish parallelism. They are grouped in two categories: one class of idioms containing similar words referring to food and one class dealing with lexical units that contain specific food images. Thereafter, the role of the types of food in the Romanian and Spanish popular mentality will be analysed. **Findings:** The present study has sought to clarify what are the reasons to favour the similarity or dissimilarity between Romanian and Spanish food idioms (geographical, historical and social causes). Particularly, types of food such as *mămăligă, saramură, rahat* or *el caldo, el pote, el cocido, la aceituna, el garbanzo, la morcilla*, that are contained in idioms provide an irrefutable proof of the distinct cultural parameters of the two languages above mentioned. Moreover, other categories like *the bread, the milk* or *the wine* that are present in both the Romanian and the Spanish phraseology, attest a common fertile ground. Another considerable aspect we would like to focus on is the semantic variable in the case of the same idiom key word. **Research limitations:** Phraseology varies considerable in terms of theoretical framework. More specifically, the different ways of classifying phraseological units and the wide range of perspectives are not easy to deal with. Moreover, idioms may contain non-linguistic information that is no longer valid and its parameters are sometimes difficult to establish. In addition, words referring to food may have antagonistic values and the subjectivity of the researcher may be a pitfall of the interpretation. **Originality/Value of paper:** Our paper provides insights into the contrastive analysis of the deep fusion of vocabulary and culture in Romanian and Spanish, which represents, to our knowledge a virgin field as far as idioms are concerned. In addition, our target is to examine the semantic value of the

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**items belonging to the lexical field of food, which take different forms in the two languages.**

**Key-words:** ethno-linguistics; food idioms; Romanian; Spanish; cultural implications.

## 1. Introduction

During the centuries an eclectic variety of approaches to language has been adopted: diachrony, production, competence, regulation or combinatory valence are only few examples of the tackled issues. Our perspective will provide insights into the workings of language as a reflection of culture, scrutinizing the important role that is played by cultural issues in language development.

According to Coșeriu (1994), the branch of linguistics that deals with the study of language variety and variation, strongly connected to the civilization and culture of a certain community is called ethno-linguistics. It has a multilayered distribution that is parallel to language strata: universal ethno-linguistics (language as a cultural phenomenon that objectifies human creativity and language as a reflector of non-linguistic culture), language-specific ethno-linguistics (lexical organization corresponds to a certain kind of experience and to intuitive knowledge of the world) and ethno-linguistics dealing with language as individual discourse (culture expressed through discourse and discourse as a specific culture phenomenon). Therefore, language is seen as *enérgeia* that simultaneously activates the elocutional, the idiomatic and the expressive competences.

Our study will rely heavily on Coșeriu's second approach to ethno-linguistics, since we consider it the most abundantly creative. Language acquires symbolic values (Silva-Fuenzalida, 1949) due to the fact that it organizes the system of cultural symbols into a *cognitive significance* (Mathiot, 1974). A key concept is that of *structure*, understood as *culture area*: the intuited deep-rooted pattern which determines individual and social linguistic behaviour (Sapir, 1974) and has "reciprocal value" (Silva-Fuenzalida, 1949). Mathiot (1974) distinguishes between *the semantic domain* (the relation between signs and the reality they represent) and *the cognitive domain* (the relation between the speaker and the reality displayed by language), which can be correlated to the social factors mentioned by Sapir (1974). Physical factors reflect in the language on the condition that they arouse positive or negative interest. Linguistic phenomena have an unconscious nature. Therefore, the most culturally relevant types of food will be intuitively selected from the multitude of aliments to create idioms.

When placing victuals into the framework of ethno-linguistics their nutritive value is abolished. Emphasis is put on the spiritual aspects of symbols, social rules, behaviour, interdictions and prescriptions (Văduva, 1996). Food idioms do not only offer information about the man and his way of life, but they also generate messages of friendship, hate, love or fear (Savin, 2007). However, as Coșeriu (2004) stated, phraseological units may reflect cultural facts that are not valid anymore. Yet we consider this lack of periodicity an important feature of cultural identity, since one of its dimensions is strongly connected to diachrony. We agree with Savin (2007) who

claimed that this level of popular mentality is a solid proof of the authenticity of the collective consciousness.

## 2. Food in the Romanian and Spanish cultures

National eating habits are the results of a long historical process and are under the influence of various factors such as culture, the environment, the climate and the socio-economic structure. They express different faces of cultural identity and alterity (Văduva, 1994). Further on, we will offer some insight into the Romanian and Spanish underlying factors of food specificity.

Romania is situated at the crossroads of central and south-east Europe. Ottomans had the greatest influence on its cuisine, together with traces from the Hungarians (*gulaş, gomboţ*), the Austrians (*sniţel*), the Bulgarians (*ghiveci, zacuscă*), the French (*şarlotă*). Turkish heritage includes prepared food (*perişoare*) and sweets (*rahat, baklava*). Romanian cuisine is unitary, with soft differences that are specific to the main regions of the country. Its tradition is not as long as the Spanish one.

Spain is situated in the south-west of Europe. It is a melting pot of various cultures because of its strategic location (Europe, America and Africa). Reference is to be made to the influence of the Romans, Arabs, Jews and Christians. However, their impact was not unitary. The Moorish gastronomic heritage includes communal sharing from the same dish (*paella, migas*), spiced stews (*potaje de lentejas*), breadcrumbs, desserts (*buñuelos, roscos*) (Katz, 2003). Spain played a prominent part in the importation of products from the Americas into Europe in the 16<sup>th</sup> century (maize, potatoes, chocolate, coffee).

Therefore, it can be concluded that Spanish gastronomy is regional (Medina, 2005) and of popular origin. According to Quesada (1992), it is not worldwide known because of various factors that can also be applied to the Romanian cuisine: the people's low appreciation of their gastronomy, the low-quality restaurants abroad and the use of substitutes instead of natural products.

## 3. Analysis of the Romanian and Spanish food idioms

In our analysis we will start from the language towards the culture. As Văduva (1994) stated, aliments are placed at the border between Nature and Culture. Therefore, eating is the synonym of coming into being. We will use the units of the universe of data (Mathiot, 1967) to analyse the place of food in the collective consciousness of the Romanians and of the Spanish.

We consider Văduva's (1994) distinctive semantic features relevant for the structuring of food idioms:

1. **poverty/ richness:** people share a common way of life, but the differences lay in the concrete eating representations (ingredients, behaviour, habits). In Spain, the less privileged classes consumed bread, soup, vegetables and cottage products (Sp. *vivir de la sopa boba*- to sponge a living). Meat became a sign of distinction and power

(Medina, 2005). Fish was expensive and less popular than meat, because it was believed to be of inferior quality and it was associated with religious penitence: **El bacalao** (codfish): Sp. *cortar el bacalao* (to take decisions) and **el atún** (tuna): Sp. *un pedazo de atún* (idiot), Sp. *querer ir por atún y ver al duque* (to want to have it both ways) are correlated to ability or lack of ability.

**El garbanzo** (chickpea) was associated to poverty and unpolished manners. Spanish chickpea idioms have a negative valence: *por un garbanzo no se descompona la olla* (valuelessness), *en todo cocido siempre hay un garbanzo negro* (inadaptation). Chickpeas are linked to death and are always consumed on Good Friday. **La breva** (fig) was an Iberian luxury associated with luck or quality: *no caerá esa breva* (there's not such luck), *ser una breva* (as easy as pie).

The subsistence food in Romania consisted of vegetables such as beans (**fasole**) and potatoes: *a beli fasolea* (to laugh), *a da cu mucii-n fasole* (to drop a brick). Beans acquire a pejorative effect maybe because they are difficult to digest and cause flatulence. Spanish bean idioms (**frijol, haba**) develop the symbolism of worthlessness: *ganarse los frijoles* (to earn a living), *más tonto que una mata de habas* (stupid).

**2.daily food/ ceremonial food:** eating is connected to rhythmic time and togetherness. Two special moments mark the Romanian ceremonial occasion: bread making and animal sacrifice. In the traditional village, prayer preceded and succeeded daily eating in total silence and with respect.

Eating serves two functions: the **therapeutic function** (surpassing existential ambiguities) and the **social function** (belonging to a community). The person eats to honour a sacred obligation.

*Coliva* is a Romanian funeral wheat porridge that is a metaphor of life and death, a sacred offering brought for the dead as an assurance of their irrefutable departure (Văduva, 1996): *a mirosi a colivă/ îi bate coliva în piept* (with a foot in the grave). Other Romanian ceremonial food is *colac*, a wheat product decorated with archetypal symbols which is present on various occasions, irrespective of the economic difficulties of the nation: *a veni colac peste pupăză* (to add the last straw) and *a-i mânca colacii* (dead) suggest a preconceived ritual schema. In Spain, funeral meals are preserved only in rural areas, although it used to be very common to offer food to the poor (Katz, 2003). However, many people keep the tradition of visiting cemeteries and eating there to honour the memory of their dead kin (Medina, 2000).

Among the dishes included in the category of Spanish ceremonial food we mention *buñuelos*, which are eaten during the Holy Week: *como buñuelos* (in a sloppy way), *mandar a freír buñuelos* (go and fry an egg). Consequently, little value is given to these spongy fritters, since they are not nutritious enough. On All Saints' Day roasted chestnuts (**castañas**) are eaten during the traditional dinner: *no valer una castaña pilonga* (that's no good) and *con él no se pueden asar castañas* (not making both ends meet) put a negative light on chestnuts, these being seen as unreachable targets. As

Medina noticed (2000), although religion practices in Spain decreased, people respect traditions in accordance with their cultural function.

Fasting is an essential factor of food tradition both in Spain and Romania, since it expresses the transition from secular existence to a sacred level. Fasting in Spain had many variations over time and it refers to the forty days before Easter when meat is forbidden (Katz, 2003). During Orthodox Lent no animal products are allowed. The Romanian idiom *nevoiașul și prostul și în ziua de Paști postește* (unproper things) reminds of poverty. *Mare cât o zi de post* (Rom.) and *más largo que una cuaresma* (Sp.) (long) emphasize the faster's inner fight with the length of time.

Some food images have a universal symbolic value. **Milk** is the food archetype, since every blissful drink is the healing mother's milk (Durand, 2000): Rom. *a curge lapte și miere* (milk and honey), Sp. *estar de mala leche* (in a bad mood) express the paradoxical status of this complete food that sometimes acquires a mesmerizing power. Milk is regarded as innocent happiness: Sp. *con la leche en los labios* (young, inexperienced), Sp. *haber mamado algo con la leche* (to have learnt smth from the cradle), Rom. *în lapte* (unripe),

**Honey** is the sweetener par excellence, the essence of things, the rediscovered intimacy (Durand, 2000), goodness and purity: Rom. *a înota în miere* (rich), Rom. *de miere* (kind), Sp. *hacerse de miel* (kind), Sp. *ser miel sobre hojuelas* (fantastic).

**Wine** is the sacred drink that represents Christ's blood and has a macrocosmic significance (Durand, 2000). It was often attributed uncommon therapeutic qualities. Very often wine drunkenness corresponds to mystical "intoxication": Sp. *tener el vino alegre* (to get merry), Sp. *dormir el vino* (to sleep it off), Rom. *a boteza vinul* (to put water into the wine).

**Bread** idioms are prolific due to the bread's status of civilization creator (Văduva, 1996). It is the complete aliment equivalent to human existence (Rom. *a câștiga o bucată de pâine/ Sp. ganarse el pan-* to earn a living, Rom. *a îi lua cuiva pâinea de la gură-* take the bread out of someone's mouth). In Spain, bread has been the population's main food, but in Romania, under the Ottoman domination, people had to pay tribute on wheat and therefore, bread was limited to the rich. However, it was consumed on special occasions to attract symbolic energy. The Romanian *a întâmpina pe cineva cu pâine și sare* (hospitable) makes reference to the well-known custom of hospitality, while the Romanian *a avea pâinea și cușitul* (of much account) expresses authority. The Spanish *negarle el pan y la sal* (to negate one's merits) hints at the essence of life, while the Sp. *más bueno que el pan/ Ro. pâinea lui Dumnezeu* (very good) reflect the quality of bread as spiritual wealth and as a symbol of Divinity.

**Salt** symbolizes purity, cleanliness, harmony, hospitality, (Sp. *¡Sal quiere el huevo!-* to want recognition, Rom. *a fi sarea pământului/ Sp. ser la sal de la vida-* to be extremely important; Rom. *a avea sare și piper-* to be interesting), but in big quantities and misplaced it acquires the valence of destruction (Văduva, 1996) (Sp. *deshacerse como la sal en el agua-* to come quickly to nothing; Rom. *a pune sare pe rană-* to increase one's suffering).

Other idioms contain culturally specific food images. **El caldo** (Sp. *poner a caldo*- to criticize) refers to the liquid in which the meat or the vegetables are boiled. Another Iberian traditional plate is **el pote** (Sp. *darse pote* -to be arrogant), a stew usually cooked on an open fire after slaughter, that is specific to mountain areas, since shepherds used to eat it hot to keep warm.

**El cocido** is a Spanish stew made from chickpeas (*garbanzo*), which was the vegetable preferred by servants in the 19<sup>th</sup> century. The idiom *ganarse el cocido/el garbanzo* identifies the dish with human existence. **La morcilla** is a sausage made from meat, blood and spices that creates a depreciatory effect because during the rabies epidemic dogs were given poisoned *morcilla* (*Que te den morcilla*- go to hell).

As far as traditional Romanian food is concerned, we mention **mălai** (maize)/ **mămăligă** (polenta): *a-și câștiga mălaiul* (earn a living), *a se îngroșa mămăliga* (the situation is getting worse), *a o pune de mămăligă* (to be in trouble). Polenta was a substitute of bread that was usually cooked during the summer when peasants worked in the fields. As Văduva (1996) mentioned, maize is deprived of a high symbolic valence and is reduced to its nutritive value.

Other key element is **saramură**, a type of brine prepared with fish, spices and a lot of salt: Ro. *a-și pune pielea la saramură* (accept a hard situation). The motivation of this idiom relies on the fact of assuming reality, which is a sign of coming to maturity. We could also mention the sweet **rahat** (Turkish delight), which is a consequence of the Ottoman influence and which very often has a depreciatory meaning due to its polysemantic nature in Romanian. Therefore, *rahat cu apă rece* suggests foolishness.

## 4. Conclusions

As it has been seen, food represents one of the lexical fields that have a tendency to create idioms because “we physically, emotionally and spiritually become what we eat” (Medina, 2005). Lexemes acquire extra-nourishment significations that belong to the nation’s cultural treasure. This symbolism is found in the collective unconsciousness. The Moor invasion, the discovery of America, the divided geographic development were the key factors that influenced food practices and cooking, while in Romania symbols follow the Christian paradigm. Although Romania and Spain underwent a process of social and cultural change, non-linguistic realities reflected in idioms point to historical facts which belong to national culture. People’s experience, ideas or conceptions are seen as different stages in the nation’s process of coming to maturity.

## References

1. Cortés, M. (2006) *Guía de usos y costumbres de España*. Madrid, Edelsa.
2. Coșeriu, E. (1994) *Lingvistică din perspectivă spațială și antropologică*. Chișinău, Știința.
3. Dumitrăcel, S. (1997) *Expresii românești*. Iași, Institutul European.

4. Durand, G. (2000) *Structurile antropologice ale imaginarului*. București, Univers Enciclopedic.
5. Katz, S. H. (2003) *Encyclopedia of Food and Culture*. New York, Charles Scribener's Sons'.
6. Mathiot, M. (1974) La significación cognoscitiva de la categoría del número nominal en pápago. In: P. L. Garvin and Y. L. de Suárez (eds) *Antología de estudios de etnolingüística y sociolingüística*. México, Instituto de Investigaciones Antropológicas. p. 153-196.
7. Medina, Q. X. (2005) *Food culture in Spain*. Westport, Greenwood Press.
8. Quesada Marco, S. (1992) *Diccionario de civilización y cultura españolas*. Madrid, Istmo.
9. Sapir, E. (1974) El lenguaje y el medio ambiente. In: P. L. Garvin and Y. L. de Suárez (eds) *Antología de estudios de etnolingüística y sociolingüística*. México, Instituto de Investigaciones Antropológicas. p. 19-34.
10. Savin, P. (2007) Pentru un studiu etnolingvistic al frazeologiei cerealelor și preparatelor din cereale. *Philologica Jassyensia*, III (1), 57-64.
11. Silva Fuenzalida, I. (1949) Ethnolinguistics and the study of culture. *American Anthropologist*, New Series, 51 (3), 446-456.
12. Văduva, O. (1996) *Pași spre sacru. Din etnologia alimentației românești*. București, Editura Enciclopedică.

# Drug Prevalence in Braşov: A Qualitative Study

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**Drug prevention is a highly important issue both in Romania and worldwide. The aim of this paper is to offer a good insight on the Knowledge-Attitudes-Beliefs model underpinning patterns of teenagers' drug consumption. There is an extensive literature in the field supporting the qualitative approach to complex behaviours, such as the one mentioned before. A series of ten in depth interviews has been carried out on a representative sample of teenagers, from the 12<sup>th</sup> grade. The target audience has been selected on the basis of prior research that unveiled high drug prevalence at this age. In spite of the results being in line with the literature, they cannot be extrapolated to the whole teenage population in Brasov, due to the lack of statistical power of qualitative studies. Nevertheless, they will be used to inform the designing and implementation of a health marketing campaign focusing on drug prevalence in high schools.**

**Key- words:** Health marketing, in depth interview, Knowledge-Attitudes-Beliefs, campaign, teenager

## 1. Introduction

In spite of the official data (ANA 2010<sup>62</sup>), previous studies have shown that there is a significant problem, both at the national and county level ( Pralea, 2010), regarding drug prevalence among young people. The difference in percentages between the national level data collected in 2009 (Teenage Barometer 2009) and the local data, collected in 2010, is of over 10%. This would mean the young people in Braşov are almost twice as likely to consume drugs compared with their counterparts. However, in the national research mentioned before, Braşov region was in line with the rest of the country, having only 10.8% of the 12th graders that consumed drugs.

Nevertheless, this problem has been on the public agenda for some while now without any policy measure having been taken. In order to achieve a better understanding of this issue and to explore the factors that lead to high drug prevalence rates among students (age 15-19) - in Braşov- a qualitative research was undertaken. Its main

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<sup>62</sup> Agenția Națională Anti-Drog (2010): *National Report on drugs situation 2010* Reitox

purpose was that of revealing the intrapersonal and interpersonal mechanisms that push a young Brasov individual to try or even consume drugs on a regularly basis.

## **2. Literature review**

The conceptual framework of this study was laid out by two main theories: the health belief model (Glanz et al 2005) and the Knowledge-Attitudes-Beliefs model (Glanz et al 2005). The first one is among the oldest models developed and used in health promotion. Nevertheless, it has recently attracted the attention of scholars and there are many that say it hasn't been sufficiently used in drug prevention (Sharma, M, 2011). The main HBM factors have a strong influence on one's decision to engage in a certain behavior. The most relevant are the following: perceived susceptibility, perceived benefits and perceived barriers. The aim of the current study is to discover what those would encompass in the case of a 12 grade student from Braşov, regarding drug consumption.

In order to successfully and completely address the problem one must also look at several other key factors, that are common to the Knowledge-Attitude-Beliefs model too. One of the most important is the knowledge that young people have about drug consumption and its effects. This has to include the sources of information that young people use. Previous studies have shown that new media channels are increasingly being used by youth to inform on key issues (Blair-Stevens et al, 2010, Pralea, 2010). Therefore an objective assessment of the most relevant information channels must also be undertaken.

Knowledge about relevant drug prevention campaigns should have a significant effect on one's decision to consume drugs or not. It should be the case that the more information an adolescent has, from participation to drug prevention campaigns; the less likely she or he is to get involved with drugs. This prior information should influence the perceived susceptibility in the sense of making young people realize that they are predisposed to the negative effects of drugs (Kotler et al, 2008).

The values or beliefs that young people have in life have also been found to have a significant influence on the decision to consume drugs or not. That is why having first hand information on the sets of values that direct a teenager's life is crucial in understanding its patterns of behavior.

Lastly, the place in which drugs are most easily acquired by adolescents is of high importance. If one is set to develop and implement a successful health marketing campaign aiming at teenage drug prevention, the place policy is highly important. It is one of the four key policies of the health marketing mix (Donovan, R et al 2010).

Considering the fundamental background presented before, Knowledge-Attitudes-Beliefs models will be developed for Brasov's 12<sup>th</sup> grade pupils regarding illicit drug consumption. Moreover a set of fundamental Health Belief Model elements will be determined in order to prepare a future health marketing campaign.

## **3. Method**

In view of the fact that the nature of this study is highly exploratory, since prior data is scarce and not well grounded, qualitative methods were chosen. Moreover considering the sensible nature of the problem addressed, together with its high psychological implications, in-depth interviews were preferred.

The sample was formed from ten teenagers from Braşov, enrolled in the 12<sup>th</sup> grade. They were chosen considering the socio-demographic (gender, age, income, type of school) characteristics of the school population enrolled in the last grade from high-school. The sample dimension was set at 10 respondents. Prior interviews helped at selecting the sample through a phone interview with students proposed by the management of different high schools. The selection interview was aimed at better fitting the sample to the population characteristics. It was constructed using information regarding variables such as: gender, age, family status, type of education enrolled it etc. The data was collected over a period of one week and each interview lasted between 50-120 minutes.

Due to the small dimension of the sample, it is impossible to extrapolate the results at a population level. Nevertheless they offer key information for the developing of a quantitative research, that will allow extrapolation, and of a health marketing campaign.

The in-depth interview is a qualitative technique. It is employed to find out all the relevant aspects that the person holds on a certain issue. They usually imply the participation of only two persons: the interviewer and the interviewee, which in this case is treated like a specialist in the field ( Ulin, R. et all 2005). In spite of being a time consuming technique it brings the advantage of a meaningful and detailed insight into the issue under studied. In the case of the present study it will enable the exploration of the attitudes and belief system that teenagers from Braşov hold on drugs and illicit drug consumption. Moreover it will allow the definition of the information collection patterns.

Regarding the way in which the conversation is developed, the IDI (in depth interviews) could be classified in structured, or directive, semi-structured and non-structured ( Brătuclu, G. et all 2006). For the purpose of the current research a series of semi-structured interviews were conducted. The semi-directive approach was considered due to the different aspects that are meant to be researched upon. In this way the conversation will allow a free discussion between the interviewer and the interviewee with the constraint that all relevant topics will be approached.

Various projective techniques were used in order to reveal the hidden structure of the KAB model for young people in Braşov. The Chinese portrait technique asked the respondents to identify the main characteristics of a teenager that consumes drugs, by comparing it to an animal, color, natural phenomenon etc. Another technique was the sentence completion test. It wanted to identify potential benefits of not taking drugs. The respondents were asked to complete the sentences and therefore reveal the hidden associations between consuming drugs and social benefits or the other way round between not consuming drugs and potential benefits.

The role play was used to assess the most important components of the health belief model: perceived susceptibility, perceived benefits and perceived barriers. Subjects were asked to describe how they would react if in a club they were offered drugs.

Apart from that the ten item personality scale(Gosling et al 2003) was used in order to link the interpersonal factors with the KAB and HBM models' constructs.

The data was collected by recording it on audio tape. The interviews were than analyzed vertically and horizontally. This offered a clearer view on both the respondents' answers taken individually and on major themes.

#### **4. Results and discussion**

Media consumption was the first problem approached. While its main purpose was to gain relevant information about the teenagers' media usage its secondary was that of relaxing the audience. As noted by previous research, young people from Braşov do rarely watch television. Some of them have reported though that they 'leave the TV on' while they perform various activities. Nevertheless, their attention is not set upon the information offered by various TV programs. In spite of this apparent lack of importance, 12 graders from Braşov trust more the information offered through traditional media compared to the one offered by new-media channels. It is a paradox the fact that they trust more the source of information that they use less.

The same is the case for all traditional media vectors when one considers the frequency with which young people from Braşov follow or use them as sources of information. Newspapers and magazines are the part that attracts the least attention from the 12 graders. They rarely just browse them and don't trust the information presented.

The radio is the old media channel that is never or very rarely considered by young people in Braşov. This is rather peculiar since there are some radio stations that claim to be focusing their broadcast on specifically this target audience. Nevertheless, young people claim that they only listen to radio when in the car or if their parents are doing that. Moreover their listening is very rarely an active one.

New-media channels, including the Internet and more specifically, social networks web-sites are accessed with a high frequency by teenagers. They are actively engaged both on web-sites such as Facebook and on online games' platforms. Most of them acknowledge the fact that they enter on this types of websites daily. In spite of that, their degree of confidence in information revealed by new-media is rather low. In fact, the trust factor is heavily depending on the source of information. For example, most teenagers interviewed mentioned that they trust more information posted by friends compared to the one offered by different types of organization.

According to the teenagers that were interviewed they trust more information about drugs offered by TV stations and less the one presented online. Nevertheless, the information transmitted online that comes from friends, is more likely to be trusted than the one on TV.

Overall young people from Braşov, are familiarized with the subject of drugs and their effects on health in general. Unfortunately most of their knowledge about the issue is not coming from informed sources but from peers or from personal experiences. They are familiar or have relevant information about a wide variety of drugs and their effects. In spite of that there is a strong tendency for most of them to distinguish between 'hard' drugs and 'soft' drugs. While the first category is thought of as having a strong negative impact on their health, the latter is seen in a positive way. Their effects are considered to be 'beneficial' on the 12<sup>th</sup> graders capacity to think freely and explore the hidden potential of their minds. These 'soft' drugs are also seen as 'meditation' drugs.

This category includes drugs such as: marijuana and hasis. Their potential harmful effect on the teenagers' health status is discarded and most of the interviewees overlook the fact that they too can create addiction.

In fact, Braşov youth's definition on drugs relies on two main characteristics. Drugs are the ones that create addiction and that have strong negative impact on your health. Interestingly they are more prone to include coffee and tobacco into this category than marijuana and hasis.

In the second part of the in-depth interview the fundamental features of the health belief model and knowledge-attitudes-beliefs were analyzed in correlation with a teenager's chance to start consuming drugs. As expected all respondents had a low degree of perceived susceptibility to the activity of consuming drugs on a regular basis. None of them thought of itself as being susceptible of either taking drugs every day or on becoming a drug addict. Moreover they didn't perceive it likely that their peers would engage in such an activity on a regular basis. This comes to support the point that drug consumption in Braşov is mainly a leisure time activity for young people and not an every day one. In spite of that, the perceived severity of taking drugs on a regular basis was high on all respondents. While most of them think that smoking some marijuana once in a while is not harmful to your health, doing it on an everyday base turns the activity into something dangerous. In fact, some of the interviewees have reckoned that they do have some friends that started to smoke every day and that they are worried about them. Therefore one could argue that the perceived severity of consuming drugs is influenced by the frequency of the behavior.

Considering the straight forward distinction between 'hard' and 'soft' drugs the perceived benefits are also different. While in the case of 'hard drugs' the interviewed teenagers have not mentioned any perceived benefits, for 'soft' drugs the mentioned benefits, gathered from the completion of sentences, are: 'opening the mind', 'thinking clearly', 'sets free your imagination', 'they work as sleeping pills' or on the contrary 'they help you study longer'. All the teenagers considered that the *etnobotanic* or 'shop' drugs have no potential benefits on their health.

These perceived benefits listed above can be easily linked to the Rokeach Value Survey responses. From the values ranked in this multi-item scale some of the most frequently placed on the first four places, were: 'the intellectual capacity', 'imagination' and 'true friendship'. They reinforce the perceived benefits that teenagers from Braşov are searching for, one of the way of reaching them would be through smoking 'soft' drugs. Moreover the high value placed on true friendship would

explain some of them worrying about their friends consuming drugs on a regular basis. In addition, some of the interviewees have stated that every day smoking brings about unwanted reaction among which is the loss of the perceived benefits mentioned for occasional smoking.

One rather interesting aspect, which is in line with the other findings, is the fact that most interviewees have pictured a person that has been consuming drugs on a regular basis as an ox. As they explained it, that person has lost its sense of control, is acting stupid but could be a feared force.

The most important barriers perceived by 12<sup>th</sup> graders from Braşov were: the high price of drugs and the negative impact on their health. While the first was mentioned mainly for marijuana or 'soft' drugs, the latter was mentioned for 'hard' drugs, especially *etnobotanic* ones. An interesting point is that none of the subjects have mentioned difficulty in procuring them as a perceived barrier. This could mean that it is rather easy to buy or get drugs, for young people enrolled in the 12<sup>th</sup> grade from Brasov.

In order to summarize and link all the pieces of information gathered until this point into an overall image of a Braşov's teenagers regarding drugs, the Knowledge-Attitudes-Beliefs framework was used. At first view one could say that 12<sup>th</sup> graders have a rather in depth knowledge about drugs and their effects. Nevertheless, most of it relies heavily on information received from peers or from other informal sources. The knowledge gained from formal sources of information, as it would be the case for official drug prevention campaigns and school programs is almost non-existent. In my opinion this finding raises some exclamation marks that should not be overlooked.

Amongst the persons interviewed there were some that stated that they have scarce knowledge about drugs and their effects on health. Most of them have also said that they have never tried taking drugs and that they do not intend to do it ever in the future. It seems that they have some positive influence from the part of their family or group of friends that makes them reluctant even to experimenting drugs. These set of factors should be explored in more detail.

Most of the interviewees have a good knowledge about 'soft' drugs and *etnobotanic* ones together with their effects on health. On the other hand they lack information about the category 'hard' drugs.

Attitudes towards drug consumption are divided. The majority of the interviewees show indulgence towards the infrequent consumption of soft drugs. This attitude is mainly supported by the 'positive' effects that these drugs are thought to have and are therefore presented in stories told by peers.

In addition, according to these teenagers' beliefs soft drugs should be legalized. Their strongest argument is that 'the forbidden' thing is always interesting especially for sensation seeking adolescents. Interestingly they are against the legalization of *etnobotanic* drugs but feel that the state is not really motivated to stop the trade with such substances.

On the other hand there are some teenagers that believe that all drugs should be forbidden by law. Among them there are some that strongly believe that this would be a good choice and most of them are motivated by friends that have taken drugs and have realized on their own their negative effects.

All in all the in-depth interviews offered a better and more comprehensive perspective on teenagers' set of opinions, beliefs, attitudes etc on drugs. The results indicate that 12<sup>th</sup> graders from Braşov have strong opinions about the legalization of drugs. They gather most of their information about drugs from peers, and have scarce knowledge of existing anti-drug campaigns. One of the most used information channel is the Internet but in order for the information presented there to be trustworthy it has to be disseminated through friends. The most interesting result is the clear demarcation that they make between soft and hard drugs. This shapes the HBM components and should clearly be considered in the case of a health marketing campaign. The same should be the case of the most important values mentioned by teenagers: 'intellectual capacity', 'true friendship' etc. In my opinion these information would be crucial in designing and implementing a successful drug prevention campaign.

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## References

1. Blair-Stevens, C., Allison, T. (2008) *Social Marketing for Health and Specialised Health Promotion*, Royal Society for Public Health
2. Brătucu Gm Brătucu T. ( 2005) *Metode calitative utilizate în cercetare a pieței* Revista Română de Marketing Nr. 2
3. Donovan, R., Henley, N (2010) *Principles and Practice of Social Marketing : An International Perspective* Cambridge University Press, New York, 2010
4. French, J, Blair-Stevens, C (2010) *Social Marketing and Public Health: Theory and Practice*. Oxford University Press,
5. Glanz, K et all (2005) : *Theory at a glance*-United States Cancer Institute 3rd edition
6. Kerr, J.; Moretti, M. (2005): *ABC of Behaviour Change-A guide to successful disease prevention and health prevention*. Elsevier Churchill Livingstone
7. Kotler, P &Zaltman, G (1971): *Social Marketing: An approach to Planned Social Change* Journal of Marketing 35, 3-12,
8. Kotler et all (2008) *Social Marketing: Influencing Behavior for Good* 3rd edition Sage Publication

9. Pralea A., Enache I. (2010) *Drug prevalence among young people in Braşov: setting the basis of a social marketing campaign* International Conference on Business Excellence Braşov 2010
10. Sharma, M.(2011) *Health belief model: need for more utilization in alcohol and drug education* Journal of Alcohol & Drug Education
11. Ulin, P. R., Robinson, E. T., & Tolley, E. E. (2005). *Designing the study*. In P. R. Ulin, E. T. Robinson, & E. E. Tolley (Eds.), *Qualitative methods in public health: A field guide for applied research* (pp. 33-69). San Francisco, CA: Jossey-Bass.
13. Weinrich, K.N.(2011) *Hands on Social Marketing: A Step by A Step Guide to Designing Change for Good* Sage Publication, Thousand Oaks
14. Agenția Națională Anti-Drog (2010): *National Report on drugs situation 2010* Reitox

## Appendix

### In-depth interview guide

#### PART I (50 MINUTES)

##### 1.WARM-UP (15 MINUTES)

*How do you usually spend your free time both during the week and in weekends ?  
 What does relaxation mean for you?  
 What do you usually do when you hang up with your friends?  
 Could you please describe a normal week day, when you are also going to school?*

##### 2. MEDIA CONSUMPTION USAGE (10 MINUTES)

*How often do you watch TV?  
 Which are your favourite programs?  
 How often do you listen to the radio?  
 Do you read newspapers and magazines?  
 How often do you access the Internet?  
 Which are the pages that you visit most frequently?  
 How often do you enter on social networks' web-pages?  
 Which of the sources of information mentioned above do you trust more? Why? What about information about drugs?*

##### 3.DRUGS-GENERAL ISSUES (25 MINUTES)

*What does the word drugs mean for you? Would you include into this category things such as: alcohol, coffee, marijuana, hasis, cigarettes, etnobotanics? What does etnobotanic mean?  
 How would you characterise a drug" user"?*

#### PART II (50-70 MINUTES)

## **1. KNOWLEDGE-ATTITUDES-BELIEFS**

### **KNOWLEDGE**

What types of drugs do you know? Where did you first learn about them or see them?  
Did you try any?  
What effects do you think these drugs can have on you? Could you give me examples for each category?

### **ATTITUDES**

Do you think drugs should be legalized?  
Do you think that its worth the risk to take/ consume drugs?  
What animal does a young person that has consumed drugs resembles with? Can you picture a colour?  
If someone would offer you drugs for free would you try it?

## **2. HEALTH-BELIEF MODEL :**

Perceived susceptibility, severity, benefits, barriers  
How likely is it that you will take drug in the following week? How likely is it that you will start using drugs on a regular basis?  
Does is seem dangerous to use drugs occasionally? Does it seem dangerous to use drugs every day?  
What do you think are the main threats that one faces if he or she takes drug once in a while/every day?  
Could you please continue the next sentences?  
When I smoke pot I feel.....  
If I would smoke than I could.....  
If I would smoke with my friends they would...  
If I would start taking drugs everyday than my life would.....  
If I would want to smoke/take some drugs now could you help me buy some?  
What prevents you from not taking drugs? Why did you choose this?  
Would your classmates or friends make fun of you if you said no to drugs?

## **PART III- CLOSING**

Could you please tell me your opinion on the way in which the state deals the problem of drugs and more specifically of *etnobotanic* drugs

# **An intercultural approach to language teaching: Romanian perspectives**

*Pricope Mihaela.*

The new social dimension of living in the European Union has brought many challenges to the Romanian educational system: on the one hand, the pressure to unity, defined as the alignment to the European education system and to its principles and on the other hand, the invitation to openness, to adaptability and flexibility as to what is new and different. Change has appeared in the field of language teaching and learning, as well. The language learner is no longer perceived as a non-native speaker who tries, as much as possible to acquire linguistic competence but, as a mediator, as an intercultural speaker, with certain competences which go beyond the linguistic one. The aim of our research is to offer an intercultural perspective on language teaching in a Romanian academic environment and to design guidelines for a language pedagogy from an intercultural point of view, whose objective is to develop students' intercultural competence. The research methodology includes qualitative and quantitative methods, such as: the survey, the focus-group and the interviews. The research instruments will help us collect data regarding student's educational needs, their motivation and preferences for different teaching methods and techniques, for the place of intercultural activities in the language classroom and for a specific learning climate. Still, the research is limited by the fact that the students have different levels of language competency, different ``intercultural experiences``, personality traits, professional interests and thus, their learning needs as regards acquiring an intercultural competence might be influenced by such levels. The expected outcomes are that the students should show preferences for contextualized learning (according to their present or future professional needs, given the fact that our researched population come from the academic educational environment) and should define their interests in learning foreign languages in terms of professional opportunities and mobility. The findings of the research has practical implications regarding the language course design and teaching methods, as well as on creating a specific learning climate. It will help language teachers take into account the intercultural approach on language teaching which will enable their students to develop new competences in order to live, travel, study and work in pluralistic societies. Even if the literature in the field contains numerous works on similar topics, especially on teaching intercultural competence, this paper, as the entire doctoral thesis, puts an accent on developing a specific type of pedagogy, a methodological system which concerns teaching a foreign language nowadays and which takes into account the above - mentioned elements, in order to increase students' motivation, self-confidence and to foster better communication in academic environments. The originality of the research consists in introducing a comparative perspective by drawing a parallel between monocultural and multicultural classroom needs in order to establish differences and common points. In conclusion, we believe that if

**we approach the language courses and teaching methods from an intercultural perspective, this does not mean that we ignore teaching linguistic, socio-linguistic, pragmatic, cultural competences but, in fact we broaden the area of competences related to language and culture teaching.**

**Key words:** intercultural approach, language teaching, learning needs, monocultural/multicultural classroom

## **1. Introduction – the significance of the European context**

If we think what word which best defines Europe from a cultural point of view would be, our answer is logically “diversity”. The European Commission, through its policies on foreign language teaching and learning, promotes multilingualism and pluriculturalism. By Romania’s accession to the European Union, it penetrated a multicultural social and professional environment which brought many pressures for change. The Bologna process itself encouraged, by its aims of adopting a common framework of readable and comparable degrees, student and professional mobility.

The change in the educational reform, at academic level takes into account the need to ensure the future professional competences required by the labour market and to teach the pupils/students different life / social skills such as learning how to learn, civic or intercultural communication competences, and so on.

The present article, as part of my doctoral thesis, is based on a preliminary research conducted at the Polytechnic University of Bucharest, that examines students’ representations of the pedagogy of intercultural competence which could be developed during their language courses.

The target population represents a group of host (Romanian) students and a group of international (different nationalities) students, thus we also aim at offering a comparative view. We have chosen these two groups because theorists argue that becoming interculturally competent is a bidirectional way: it applies both to the host and the guest, both to the majority and the minority population in a society.

The aim of the research is to create a pedagogical framework based on prior research, theories in the fields of intercultural communication and language teaching and students’ representations of teaching intercultural competence. The selection of criteria for building such a framework is based on speciality literature. The research instrument which helped me collect the data was the questionnaire. This contains 15 questions related to personal, institutional and didactic factors (which were also the selection criteria for creating the pedagogical framework) which could influence the development of intercultural communication competence in an academic environment.

The research hypothesis was the following:

There are three possible factors which can influence (positively or negatively) the development of intercultural communication competence in a second/foreign language classroom: personal factors such as students' personality traits, students' anxiety degree, students' motivation, teacher's personality and competences; didactic factors, for example teaching methods, didactic activities, teaching materials, content of the lesson and institutional (socio-political) factors such as the length of study and syllabus

### **Theoretical background**

In a very broad sense, intercultural education prepares young people to live in a multicultural and fragmented society, which begins to flourish in Europe. The objectives of intercultural education are defined in terms of concrete intercultural behaviours by Romanian authors such as C. Cucos (2000 ) and T. Cozma (2001): openness to others, aptitude to perceive alterity, acceptance of the other as being different, positive reaction to unknown and ambiguous situations, desire to experiment, ability to ask ourselves about our own reference cultural system, acceptance of egalitarian discourse, ability to assume conflicts and solve them calmly and productively.

According to the same authors, intercultural pedagogy is not a specific one, but it combines different other pedagogies: active and interactive pedagogy and learner-based pedagogy.

Intercultural pedagogy is based on several principles or strategies (Donna Gollnick and Philip Chinn, 1986) such as: using didactic methods adequate for the socio-cultural background and learners' experiences; knowing your students and their cultural values; using teaching styles adequate for learners' learning styles; involving learners in the teaching process; integrating intercultural approach at curriculum/syllabus level; having knowledge of history, social realities of both host and guest cultures; using multicultural teaching resources.

From amongst all educational paradigms, constructivist pedagogy represents a model worth taking into account and adequate to the objectives of intercultural education. According to constructivist ideology, learning is a process of interpretation and building by the learner of his/her own identity and knowledge of the world.

### **The intercultural classroom**

In a culturally heterogeneous classroom the process of adapting to group norms is more difficult, as the learners originate from different cultural and educational systems. Moreover, in an academic environment characterised by adults' pedagogy, the pressure of the group is less intense due to students' independence and degree of maturity. However, in a multicultural classroom a certain form of subculture is created - it is the multicultural group's subculture. The specific of such a class is given by two elements: the educational climate and the intragroup relations.

As regards the physical educational climate Fulton (1991, cited by R. Palos, 2007, p.131) focuses on learners' perception of the material attributes which create the

learning space. The perceptions that the student has regarding the learning environment affects his/her motivation, involvement in tasks and reaching his/her learning goals. According to intercultural theorists (St. Hall, G. Hofstede, P. Brooks) proxemics, or the perception over space represents a cultural variable. For example, the American culture prefers large spaces, big physical distance between interlocutors, whereas Oriental cultures may favour closeness and small spaces.

The affective climate created by the physical educational climate of learning is also very important. The perceivable elements such as furniture positioning, light, decoration, temperature, noise, etc. have an emotional impact on each learner which can lead to promoting or inhibiting learning. These elements are more significant in culturally heterogeneous classes because the students learned in different educational environments with different rules and attempts. The affective educational climate is also influenced by intra-groupal relations. The multicultural classroom is different from the monocultural one by a less visible group hierarchy due to the fundamental principles of intercultural education of tolerance and cultural relativism.

In intercultural pedagogy, the teacher assumes the role of a facilitator and equal partner who allows for participation in the educational act of both actors, the teacher and the student. It is ideal that a teacher in a multicultural classroom to be polyglot (Gary Althen, 1994, chapter 4), to have broad knowledge on different cultures, but, as no teacher can be an expert in all cultures of the world it is essential that both teacher and students learn from each other.

„Teachers face unusual and new learning situations when integrating intercultural learning in school. (...) In an intercultural encounter, teachers are likely to find themselves confronted with questions and problems for which they do not have answers or solutions. They find themselves in the same situation as their pupils. They, too, are learners.” (Fennes si Hapgood, 1997, p.79).

### **Intercultural communication competence**

The concept of communication competence has added a new element in recent educational research, especially in the field of language teaching, that is „intercultural”. The concept of *intercultural communication competence* was introduced in many of the works of the Council of Europe by Mike Byram and Genevieve Zarate. In his book, `Teaching and Assessing Intercultural Communicative Competence` (1997), M.Byram offers a structural model of this competence. Briefly, it involves the acquisition and mobilization of resources such as: knowledge, attitudes and skills, which are in an interdependent relationship. Thus, according to the author there are two types of necessary knowledge. The first type refers to knowledge of social groups, their cultural products and practices, referring both to one’s own and interlocutor’s country. As such knowledge cannot be acquired only during the language classroom, unless a pluricultural / plurilingual approach is implemented, there is an option to expand intercultural approach to more disciplines such as history, geography, sociology, and others. Besides the knowledge acquired in formal learning situations, the intercultural approach opens school doors to the exterior, to society and mass-media and other sources which the pupil/student may use to obtain the necessary

information and knowledge. These are learned both consciously and unconsciously in the process of socialization.

The second type includes knowledge of the general processes of societal and individual interaction. We consider that these refer to socio-linguistic and socio-cultural knowledge, to the norms of interaction according to the context of communication, non-verbal and para-verbal language.

The affective dimension of the competence refers to two types of attitudes: on the one hand, attitudes of curiosity and openness to the others and, on the other hand, readiness to suspend disbelief about other cultures and belief about one's own, which is translated by a readiness to overcome negative stereotypes and prejudice but also to eliminate any ethnocentrism or xenocentrism.

As concerns the skills, respectively the behaviour dimension, Byram differentiates between three skills:

1. skills of interpreting and relating which involve interpreting a document or an event from another culture, explaining it and relating it to documents and events from one's own.
2. skills of discovery and interaction, meaning the ability to acquire new knowledge of a culture and cultural practices and the ability to operate knowledge, attitudes and skills under the constraints of real-time communication and interaction. In other words, the ability to mobilize resources in real communicative situations.
3. the ability to evaluate critically on explicit criteria, perspectives, practices and products in one's own and other cultures and countries

Intercultural competence shall manifest in the process of passing from an ethnocentric attitude, by de-centering from the own cultural code and de-constructing images at the level of representation of the other to an ethnorelativist attitude by immersing into the cultural code of the interlocutor and replacing the image of the other with another one, more adequate to the situation.

According to William Gudykunst's model of Anxiety-Uncertainty Management, intercultural competence is influenced by certain factors in interdependent relationship. He established three dimensions in terms of attitudes, knowledge and behaviour. The attitudinal (psycho-behavioural) dimension includes anxiety and uncertainty. The author explains how these causes influence the effectiveness of interpersonal and intercultural relations, provided the interlocutors were aware of them. Under this category we can also talk about motivation: one's needs, conception regarding oneself, openness to new information. The cognitive dimension refers to expectations, different angle views, knowing alternatives, knowing similarities and differences but also knowledge on how to expand the social network. Finally, the behavioural dimension (abilities and skills) includes, according to Gudykunst, the ability to empathise with others, to tolerate ambiguity, to adapt his/her communication to the situation, to adapt the behaviour.

The efficiency of communication depends on both interlocutors. In societies with sufficient mobility, individual experiences can take the form of both the host and the guest. Thus, M. Byram thinks that the field of teaching foreign languages should include these two perspectives or roles.

As regards the field of didactics, Claire Kramersch (1998) notices that the concept of communicative competence in a foreign language which used to aim at drawing closer to the linguistic level of the native speaker was subject to reinterpretation. M. Byram's proposal to introduce the intercultural element leads to this re-evaluation. For Kramersch communicative competence means common rules for interpretation, applied to familiar and unknown contexts which give sense to the world (Kramersch, 1998, p.27).

## **Results and interpretation of the collected data**

Participants in the study were 51 Romanian undergraduate students at the Polytechnic University of Bucharest and 43 foreign students of different cultural backgrounds, studying at the same university. The age range was 19-25 years old. The choice of using two types of groups – one monocultural and the other, multicultural was based on the hypothesis that intercultural pedagogy is applied differently to these two types of groups/classes. Thus, we were interested in finding out the differences and similarities of representations regarding several pedagogical issues involved in teaching intercultural communication competence. Data was collected by individual written questionnaires distributed by teachers during the foreign language class. The questionnaires for the foreign students were written either in students' native language (French for the majority) or in a language of their choice, which they already spoke well (English). The majority of full-time foreign students who chose to study at the Polytechnic University of Bucharest come from former French colonies such as Tunis, Morocco, Algeria ( North Africa), or Arab countries like Egypt, Pakistan, Iraq, Iran, Jordan. The questionnaire was aimed at finding out the representations of students in a technical university regarding personal experience of alterity, interests and motivation in developing intercultural communication competence and the pedagogy of intercultural communication competences.

With respect to personal experience of alterity 59% of the Romanian respondents had contact with another culture and 86% of the foreign students say that coming to Romania is not their first experience of alterity. In both cases, more than a half of the target population have experiences of other cultures. Both groups show interest and motivation in studying and developing intercultural communication competence. Concerning the question if it is enough to speak fluently a foreign language in order to communicate effectively with a foreigner, 47% of the Romanians and 25% of the foreigners disagree whereas 31% of the Romanian students and 42% of the foreign students agree. This shows that even if people have prior intercultural/cultural experiences of alterity life-experience alone, and interaction with foreigners do not guarantee the acquisition of intercultural communication competence. On the other hand, as literature in the field shows, to communicate effectively involves other competences besides the linguistic one amongst which socio-linguistic, pragmatic, intercultural, etc. The results show us a greater awareness of the Romanian students, in

comparison with the foreign ones regarding different other competences which are necessary in order to communicate effectively.

The reasons for developing intercultural competence were more pragmatic in the case of Romanian students (working abroad, shortly followed by travelling and living abroad), which coincides with the generational characteristics of the young people, whereas the foreign students' answers were mostly related to a study mobility abroad followed by the need to communicate with natives. According to my experience as a teacher of Romanian to foreigners, the foreign students in the Polytechnic University fall into two categories: students who want to live and work in Romania after graduating, and students who consider that Romania is a transit country, especially after the accession to the EU and because of the recognition of diplomas.

The last section of the questionnaire refers to the pedagogy of intercultural communication competence. Concerning the factors which might influence positively the development of intercultural communication competence, the answers on which both groups agreed were: an empathic relation with the teacher, the intercultural content of the syllabus and the classroom climate.

The most significant differences regarded the following items: interactive teaching methods preferred by the Romanian group, the need for adequate teaching materials preferred by the foreigners, the role of learner's personality traits considered as an important factor by the foreign students (30%) and, respectively, as a less important factor by the Romanian students (only 9%). There are also some factors which might affect the development of ICC negatively. The two groups agreed that one of them is a low level of language competency but their opinions differed significantly in what concerns the item 'lack of self-confidence' (the Romanian students) and 'the existence of cultural differences' (the foreign students). This aspect shows again that the foreign students who responded might lack awareness of the importance of cultural differences and the possible strategies to bridge any intercultural gaps.

Concerning the teaching methods and activities the recorded answers were very different, fact which shows individual preferences according to their learning needs and styles.

Our starting hypothesis represents the one of the doctoral research and in this article it was partially tested. Thus, referring to the personal factors we included questions regarding prior experience and motivation, the didactic factors included only teaching methods and activities, and the institutional factors referred to syllabus. As a conclusion between the two target groups there are differences of views as regards the teaching methods and activities but they seem rather similar concerning the importance of an empathic teacher, an adequate learning climate and intercultural content of the language syllabus.

## **Bibliography**

1. Althen, Gary (ed) (1994) *Learning Across Cultures*. USA, NAFSA.

2. Byram, Mike (1997) *Teaching and Assessing Intercultural Competence*. Clevedon, UK, Multilingual Matters.
3. Cuceș, C. (2000) *Educația – Dimensiuni culturale și interculturale*. Iași, Polirom.
4. Cuceș, C. and T. Cozma (2001) *Locul educației pentru diversitate în ansamblul problematicii educației contemporane*. In Cozma, T. (coord) *O nouă provocare pentru educație: interculturalitatea*. Iași, Polirom.
5. Fennes, Helmut and Hapgood, Karen (1997) *Intercultural Learning in the classroom. Crossing Borders*. Great Britain, Keywood Books.
6. Gollnick, M. Donna and Chinn, C. Philip (1986) *Multicultural Education in a Pluralistic Society*. Columbus, Ohio: Charles E. Merrill Publishing Company.
7. Hall, Edward (1959) *The Silent Language*. New York: Doubleday & Company.
8. Hofstede G, Hofstede J. (2005) *Cultures and Organizations- Software of the Mind*. McGraw-Hill Education Europe.
9. Hofstede, G. (1982) *Culture's Consequences*. Sage Publications, Newburz Park.
10. Kramsch, Claire (1998) *The privilege of the intercultural speaker*. In: Byram, M. & Fleming, M. (eds) *Language Learning in Intercultural Perspective. Approaches through drama and ethnography*. Cambridge, Cambridge University Press.
11. Paloș, Ramona (2007) *Educația adulților. Baze teoretice și repere practice*. Iași, Polirom.
12. Peterson, Brooks (2004) *Cultural Intelligence: A guide to working with people from other cultures*. Maine, USA, Intercultural Press.

# Europeanization, European Integration and European Identity

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In my paper, I will argue that the scope of Europeanization is wider than that of EU-ization and that Europeanization affects national identities in a different way than EU-ization. By the same token, Europeanization also influences non-European states. However, it is more complicated to distinguish between the impact of Europeanization on European states (not necessarily EU member states) and non-European states. To discuss this, I will look at the domestic impacts of the Europeanization process. Europeanization, as a policy, requires domestic changes in nation state structures. It is worth discussing to what extent Europeanization pressures Europeanizing states. With the assumption that EU-ization and Europeanization are two different processes, although EU conditionality serves for Europeanization, it is still not possible to argue about the existence of a pressure mechanism of Europeanization. It should be noted that Europeanization, unlike EU-ization, is a self-imposed process. In the Europeanization process, there is no external pressure to sustain or achieve the main goal which is being 'Europeanized'. Therefore, outcomes of both processes (EU-ization and Europeanization) might differ in terms of identity transformation. I will also discuss the transformability of national identity. In most studies, national identity is assumed as a transformable asset of nations. However, this might not be true. It is a crucial question which factors are effective in the transformation of national identities. In my paper, I will try to give a clear definition of the concept of national identity and highlight the reasons for why or why not national identity is transformable.

**Key Words:** Europeanization, EU-ization, Identity Transformation, The European Union, EU conditionality

## 1. Introduction

Europeanization is a process that causes profound changes in a nation states' substantive dynamics. These changes can be constitutional, institutional, political, economic or structural. As Olsen (2002) states Europeanization and its impact on the nation-states as well as the changes arising from Europeanization have been studied by many scholars. However, its impacts on national identities have not yet been analyzed in detail. Admittedly, Europeanization is a complex process. In the literature, there is no clear distinction between Europeanization and other transformative processes, such as EU-ization, modernization, globalization and westernization. All these processes

have an impact on nation states and national identities. However, it is still difficult to measure to what extent these processes can transform nation state structures and national identities. The major questions here are how does Europeanization transform nation states and national identities, and how can Europeanization be distinguished from other transformative processes.

It is confusing to look for differences between Europeanization, EU-ization, modernization, westernization and globalization. Of course, there are some characteristics that identify each process. However, since the processes are highly interrelated, they can be difficult to distinguish. For instance, Europeanization and EU-ization are two interrelated processes. Some scholars define Europeanization as European integration (Schimmelfennig and Sedelmeier, 2005), and some define it in a wider perspective independently of the European Union and EU-ization (Flockhart, 2010).

In this paper, I will focus on European identity and its components. Furthermore, I will examine Europeanization, European integration and EU-ization in detail and point out similarities and differences. Seemingly, these processes (Europeanization, European integration and EU-ization) are used to describe one particular process which is being Europeanized. Although the processes of Europeanization, European integration and EU-ization have many similarities and often overlap, they are different processes.

## **2. European Integration or Europeanization?**

European integration and Europeanization are two interrelated concepts. Some scholars use these terms as synonyms, such as Cowles and Caporaso and Risse, 2001; Schimmelfennig and Sedelmeier, 2005; Risse, 2004; and Jacquot and Woll, 2003. These scholars also assume that Europeanization and EU-ization are mostly the same processes. Although Europeanization is a broader and older concept than EU-ization, some scholars still prefer to use Europeanization as a synonym of EU-ization. Therefore, they confine the Europeanization process to the EU. This is a minimalist approach. It should not be a subject of any discussion whether EU-ization is a wider and better concept to explain European integration or Europeanization than Europeanization theory or not. Considering the fact that the EU-ization process covers the last sixty years of European history, the Europeanization process covers centuries. Flockhart (2010) argues that EU-ization is a part of Europeanization but an important part of it. Some might argue that Europeanization starts with the French Revolution or after the Renaissance period in Europe. It is a highly controversial issue when the Europeanization process started but it is almost clear what the Europeanization process means.

It is crucial to highlight whether Europeanization is an internal or external process. It is more appropriate to say that Europeanization includes both processes. Not only geographically European states but also other states in different continents have been affected by Europeanization. However, the same cannot be said for the European integration process or EU-ization. In fact, European integration refers to integration in the European Union rather than Europe as a whole. Many questions can be asked about this issue. For instance, what is the difference between Europe and the EU? To what extent does the EU represent 'Europe'? Could Europeanization still be a 'phenomenon'?

(Bulmer, 2008) without the EU? To what extent do European integration and Europeanization overlap? These are some of the key questions that can be asked to explain prominent European ‘transformation processes’. There is a conceptual confusion in European studies. In particular, terms often overlap and contradict in theorizing the European transformative processes. To distinguish Europeanization from EU-ization or European integration from EU-ization is considerably complicated.

The European integration issue can be studied in two dimensions: EU driven European integration and Europeanization driven European integration. This distinction is also highly complex. However, both processes (Europeanization and EU-ization) are closely related to European integration. Transformation driven by either of the processes can be carried out through the integration process. In the literature, European integration is mostly studied from the EU’s perspective. European integration, as a political theory or a political tendency, is associated with the EU and EU policies. Although it does not seem an inconsequent approach, European integration should not only be considered within the EU.

Marks (1996) and Hooghe (1996) define European integration as a ‘polity creating process in which authority and policy-making influence are shared across multiple levels of government – subnational, national and supranational’. This definition is also linked to ‘independent European integration’ which is not confined to the EU-ization process. From this point forth, it can be said that European integration is not only an integration process in the EU, but it is also a process in which states tend to adapt their national policies to a better level of political system (European or EU). This process can also be defined as a ‘transformation process’. It is undeniable that the EU’s role in this transformation is significant. EU’s mechanisms to transform ‘Europeanizing’ states are the key factors in European integration even though the process itself is not an integration process in the EU. The institutional and policy making structure of the EU is the driving force behind both the Europeanization and European integration processes. As integration has many dimensions such as economic, political, cultural, institutional etc. the EU is the primary factor in the transformation of states.

### **3. European Identity**

Identity itself is a complicated concept. There are different definitions of identity in the literature. Strath (2002) defines identity as a ‘concept used to construct community and feelings of cohesion and holism, a concept to give the impression that all individuals are equal in the imagined community’ (p.387). Some others also define identity in terms of collective equality and similarities (Charles, 1989; Gleason, 1983). On the assumption that identity refers to collective equality and similarity, defining a European identity might be much easier. There are two key points of identity definition: collective equality and collective similarity. These key points are also the criteria of an identity. Therefore, the question is to what extent the concept of ‘European identity’ meets the identity criteria.

The European identity concept is one of the most problematical issues. This issue has many sub-questions all of which necessitate deep analysis and research to find a reasonable ground for European identity studies. Apart from the identity discussion,

which is a subject of other sociological research, first, Europe should be precisely defined in order to deal with the European identity question. Then, the criteria of being European must be clarified (although the EU contradicts, being a member of the European Union does not necessarily mean being European). This should be followed by determining the members of the European society. Who is European and who is not European will be the most challenging issue to overcome. However, it is almost certain that there is no way to have an undeniable conclusion of this process. The existence of Europe - as it is in minds – is a highly questionable matter.

The European identity debate sometimes overlaps with the European citizenship concept. At that point, the European Union (EU) has a significant role in the Europeanness discussion. From the EU's official point of view, it is possible to say that all EU members and candidate countries are Europeans. The EU confirmed this by rejecting Morocco's application for membership (1987) because of the fact that Morocco is not a European country. However, the situation is not that simple. There is no doubt that Morocco is not European, but some other examples of countries that have been accepted as members or candidates are not convincing, such as Turkey and some Eastern European members. Although it is possible to describe Turkey as a European state from a historical perspective, there are several counter arguments against Turkey's position. For instance, culture, religion and racial issues are the prominent counter arguments against Turkey's Europeanness. In this context, to define 'European' is difficult but European citizenship can replace the Europeanness concept.

The citizenship issue is more about the sense of belonging rather than being a citizen of a state. The citizenship concept should be analysed in two dimensions. One is the general perception of citizenship which can also be called 'official citizenship' and the other is emotional attachment. At that point, it is important to determine which aspect of 'citizenship' will be examined: official or emotional? As a matter of fact, the official attachment to a state does not really provide an identity to a person. People are actually citizens of states that they feel attached to. For example, a Mexican, who officially has US American citizenship and the same rights as a local American, does not necessarily feel more American than Mexican. The citizenship concept mentioned here is more like the identity concept. It is an entrenched sense.

Fligstein (2009) mentions the characteristics of people who consider themselves Europeans. According to him, simply, a person who can speak a second language, travel to another European country and participate in a European-wide event might tend to consider himself / herself European. This is an irrelevant description of Europeanness. However, even if it is possible to feel European this way, it can only be defined as a social attachment to Europe. Fligstein (2009) points out that people in Europe who do not consider themselves as Europeans are around 45 percent. He also argues that the majority, i.e. the other 55 percent, 'sometimes' think of themselves as Europeans.

In fact, Europeanness, European identity and European citizenship are highly blurred issues. Although they seem to refer to the same thing, they are different concepts and should not be equated with each other. Lehning (2001) highlights that European citizenship, as a term, means that people from different nations (in Europe) have the

same rights. He also argues that the EU has accomplished the citizenship task in terms of common rights. Some might see this accomplishment refutable. It is not so absurd. However, it can also be argued that what the EU has accomplished is the 'official dimension' of the European citizenship. At that point, it is necessary to analyse the 'official dimension' of citizenship and why it is an incomplete process.

There is a dilemma whether the official face of citizenship can unify European people or not. More importantly, is it ever possible to unify European people with the promotion of the citizenship idea. It is worth looking at the idea behind the unification of Europe again. What does the EU, which officially represents most of the European states, aim for by unifying Europe and its citizens? Most scholars argue that the main objective of the EU, at first, is / should be to implement an official 'European citizenship' rather than unifying European people and transforming identities from their national identities into a European identity (Hansen and Hager, 2010; Wiener, 1998; and O'leary, 1996). This issue is one of the most difficult challenges the EU faces today. A united Europe can only be possible when European people attach themselves to Europe and consider themselves as Europeans, at least, as a sub-identity. Although it is a highly difficult task, the EU has created the awareness of European identity. However, this awareness may not be as influential as expected because of the strength of national identities and the gain – loss balance that European identity offers.

Another important question related to European identity is whether there should be only one 'European identity' or is it possible to have more than one 'European identity'. This question is of key importance for the future of the idea of a united Europe. European geography accommodates many national identities (Checkel and Katzenstein, 2009). This is also a fact from a historical point of view. In the history, there have always been multiple identities which also contributed to the emergence of modern Europe. Therefore, considering the fact that the European identity map consists of different and more than one national identity, it might not be necessary to create a single 'European identity'. At that point, another question should be asked: can the unity of Europe be sustained with multiple 'European identities'? This will be the most crucial question that the EU and national policy makers will have to answer in the near future.

#### **4. Conclusion**

Europeanization, as a process, a theory or a 'phenomenon', undoubtedly has a huge impact on European or non-European states that voluntarily tend to adopt European style of domestic policy. The EU or some group of European states or the historical transformation process of Europe that serves as an example to 'Europeanizing' states can be regarded as the sources, or exporters - distributors of Europeanization. The other actor of the process should be regarded as a beneficiary or an importer of the European style of policy making process. As there are different sources of Europeanization, it should not be expected that the impact of Europeanization will be constant on all Europeanizing states. In addition to this, the level of Europeanization might vary in different states. Some of them can rapidly be Europeanized while some others gradually adopt a 'European way of doing things' (Radaelli, 2003).

The impact of Europeanization on the national identities of Eastern European states has most likely been deeper than that of Western European states. In particular, states that have a communist past have been affected by the Europeanization process the most in terms of identity transformation. After the collapse of communism, European 'soft power' has filled the ideological gap among Eastern European states and the awareness of 'Europeanness' or 'Westernness' has been raised through Europeanization. This has been one of the most crucial historical milestones of the Europeanization process. It can be argued that the transformation in former communist states is the most apparent impact of Europeanization on nation states and the national identities. However, the Europeanization process encounters difficulties, such as ideological background of the states, the strength of the national identities, or other states that do not want to lose their influence over Europeanizing states, e.g. Russia. This situation constitutes a serious problem for Europeanization. While some Eastern European states, such as Poland and Romania, have overcome this obstacle, others are still dealing with this issue, e.g. Ukraine, Belarus, Moldova, etc. Not only Eastern European states but also some Caucasian states experience this problem. For instance, Georgia, Azerbaijan and Armenia have been struggling with Russian influence. The small-scale war between Russia and Georgia in 2008 can be seen as an example of this struggle.

To conclude, it should be said that Europeanization has an impact on the national identities of Europeanizing states at different levels. This, however, does not mean that Europeanization transform the national identities in a large scale. It is highly difficult to measure to what extent Europeanization transforms the national identities as well as nation states. Europeanization should not be seen as a goal but as a tool in the modernization process of states or peoples.

## Bibliography

1. Bulmer, S., 2008, Theorizing Europeanization, in *European Identity*, Graziano and Vink (eds.), Palgrave Macmillan, Basingstoke: UK
2. Checkel, J. T., and Katzenstein P. J., (eds), 2009, *European Identity*, Cambridge University Press, New York: US
3. Cowles, M.G., Caporaso, J. and Risse, T. (eds), 2001, *Transforming Europe: Europeanization and Domestic Change*, Cornell University Press, Ithaca: US
4. Fligstein, N., 2009, Who are the Europeans and How Does This Matter, in *European Identity*, Checkel and Katzenstein (eds.), Cambridge University Press, New York: US
5. Flockhart, T., 2010, Europeanization or EU-ization? The Transfer of European Norms Across Time and Space, *JCMS*, 48(4): 787-810
6. Gleason, P., 1983, Identifying Identity: A Semantic History, *The Journal of American History*, 69(4): 910-931
7. Hansen, P., and Hager, S. B., 2010, *The Politics of European citizenship: Deepening Contradictions in Social Rights & Minority Policy*, Berghahn: USA
8. Hooghe, L. (1996), Building a Europe within the Regions: The Changing Role of the European Commission, In *Cohesion Policy and European Integration: Building Multi-Level Governance*, Hooghe, L. (ed.) Oxford: Oxford University Press

9. Jacquot, S., and Woll, C., 2003, Usage of European Integration: Europeanization from a Sociological Perspective, *European Integration online Papers (EIoP)*, (7)12, <http://eiop.or.at/eiop/pdf/2003-012.pdf> [Accessed on February 01, 2011]
10. Lehning, P. B., 2001, European Citizenship: Towards a European Identity, *Law and Philosophy*, 20(3): 239-282
11. Marks, G., 1996, European Integration from the 1980'S: State-Centric v. Multi-Level Governance, *Journal of Common Market Studies*, 34(3): 341-377
12. O'leary, S., 1996, *European Union Citizenship: Options for Reform*, IPPR, London: UK
13. Olsen, J. P., 2002, The Many Faces of Europeanization, *JCMS*, 40(5): 921-952
14. Radaelli, C., 2003, The Europeanization of Public Policy, in *The Politics of Europeanization*, Featherstone, K., and Radaelli, C. (eds.), Oxford University Press, Oxford: UK
15. Risse, T., 2004, European Institutions and Identity Change: What Have We Learned, in *Transnational Identities: Becoming European in the EU*, Hermann, R. K., Risse, T., and Brewer, M. B., (eds.), Rowman & Littlefield, Oxford: UK
16. Schimmelfennig, F. and Sedelmeier, U., (eds.) 2005, *The Europeanization of Central and Eastern Europe*, Cornell University Press, Ithaca: US
17. Strath, B., 2002, A European Identity: to the Historical Limits of a Concept, *European Journal of Social Theory*, 5(4): 387-401
18. Taylor, C., 1989, *The Sources of the Self: The Making of the Modern Identity*, Harvard University Press, Cambridge: US
19. Wiener, A., 1999, *European Citizenship Practice: Building Institutions of a Non-state*, Westview, Oxford: UK

# Legislative area: Problems of the Relation between Romanian Parliament and Government

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## 1. Introduction

In this paper, I analyze the relation between Romanian Parliament and Government from 2006 to 2010, when it comes about the initiation of a legislative proposal and Emergency Ordinances.

### 1.1 Argument

Romania is a republic with a semipresidential system, with a powerful and visible Government, which dominates the legislative area, using the Emergency Ordinances and legislative projects. I analyze the impact this custom has on the role of the Parliament as the main legislative institution, because, if we take into consideration the separation and collaboration of powers theory, we can see that the Romanian Parliament is “dominated” by the Government. The aim of the paper is to demonstrate that in Romania the Government takes little by little the place of the Parliament when it comes about the building of a law, because it tends to suggest most of them.

### 1.2 Paper Structure

The paper has three parts. The first part of the paper includes the theoretical perspective, using the democracy theories about the separations of powers in state and details about the relations between legislative and executive in general and the relation between the Romanian Parliament and Government in particular. The second part is about the semi-presidential system and its advantages and limits. Romania has a semi-presidential regime. The last part is an application on the laws adopted by the Romanian Parliament in between the years 2006-2010, in terms of the initiator of the legislative projects, highlighting the relation of the Government and Parliament.

### 1.3 Limits

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This paper is primarily limited by the small space is conducted. Another limit of the paper is the lack of data on laws passed in the Senate, because I have access only on the data from the Chamber of Deputies' website. I also cannot embrace all the causes that make the relation between the Parliament and Government emerged this way, making only a quantitative analysis of the laws.

## **I. The complex relation between the Executive and the Legislative**

### **• The separation and collaboration of powers**

The "separation of powers" principle stays at the basis of the democracy theory, being a condition of an efficient state of law. The philosophers John Locke and Montesquieu are the fathers of the separation of powers theory, which is about the equilibrium between the legislative power, which belongs to the institution often called the Parliament, the executive power, that, in generally, is represented by the Govern and the President and the judicial power, that of the High Court and tribunals. The separation of powers principle assures the lack of dominance of one of the powers, because the theory implies control and interference mechanisms between the powers.

Today, *"the accent is put not on the separation of powers, but on their collaboration, because in the process there are other forces like the political parties, nongovernmental organizations, trade unions that influence the governmental decisions"* (Ionescu, C. (2002) *Instituții politice și drept constituțional*, Editura Economică, București, p. 166). The actual situation imposes a modern and elaborate way for the main state institutions to collaborate.

In this paper, the accent is put on the relation between the executive and legislative power and their functions. This relation is very complex, because is different from country to another. The legislature is an inevitable organism in a democracy, its common purpose being that of making the laws. John Locke (1690) in "Second Treatise on Government," says that the legislative power has the right to make laws for every member of the society, imposing rules for its actions and giving power to the executive (Locke, J. (2004) *Second Treatise on Government*, Barnes&Noble Publishing, Inc, p. 77). Also, Montesquieu considers the legislature exists to create the laws or to revoke the bad ones. The importance of the legislatures is more visible in a democracy because they are composed from the representatives of the people, voted by the people.

Today, there is a big debate about the "decline" of the legislatures and its powers. In contemporary democracies, the Government has progressively strengthened in comparison with the Parliament. According to Guerrero Salom, this fact happened for two reasons. One of the reasons is political and is about the visibility of the Government, whose members discuss with the union leaders, so the people vote the Government, not the Parliament, because they think that the majoritarian party will compose the Government. The other reason is social and refers to the Govern duty to give subventions and taxes (Guerrero Salom, E.(2004) *El Parlamento- Que es, como funciona, que hace*, Editorial Sintesis, Madrid, 23), which makes it more visible for

the citizens. Other weak spot of the Parliaments is the marginal participation at the policy-making process. *“Legislatures have not been able to cope with various pressures that have favored the dominance of the executive in policy formulation and determination.”* (Norton, P. (1993) *Does Parliament Matter?*, Warvester Wheatsheaf, Hertfordshire, p. 7)

- **The situation in Romania**

In Romania, the problem of the legislature is not only the low visibility of the institution and the increasing importance of the Government, especially regarding the public policies, but also the perceptions of the deputies about their work and their “forgotten responsibility” to make laws. The most used methods by which the Government can interfere in the Parliament legislative activity are Emergency Ordinances, law projects and participations in the parliamentary debates. Here, the Government includes only the Prime Minister and his ministers and not the President, which must promulgate the laws and has another role. The Parliament can interfere in the executive power activity and control it, using the rights to give the trust vote to a new Government, to participate at the investigation of government departments’ activity and to address questions and interpellations to ministers and cabinet’s members. Even if the procedures of collaboration between the Parliament and Government are well delimited, the relation is competitive, one of the ties between the two institutions being the membership of the Cabinet members and the deputies to the same party. Other important aspect is that the President and the Government deal with the international relations of the country, so they negotiate the treaties, the granting and taking financial loans, so the Parliament stays in their shadow, having the right to adopt or reject the executive decisions, but in most cases the deputies vote “conveyor” these law projects.

## **II. The semi-presidential system in Romania**

- **Some perspectives over the semi-presidential regime**

The semi-presidential system combines the features of a parliamentary system with those of a presidential one, being characterized by the fact that the president is directly elected by universal suffrage, having considerable powers, and the Government is responsible to the Parliament. Maurice Duverger gave the first definition of semi-presidentialism in 1970. Duverger stated that a semi-presidential regime was “characterized by the fact that he possesses certain powers which exceeded those of a head of state in a normal parliamentary regime. However, the government still consists of a cabinet formed by a prime ministers and ministers who can be dismissed by a parliamentary vote”. (Duverger (1970), cited in Elgie, 1999)

This kind of regime gained popularity after the third wave of democracies, semi-presidentialism being a popular alternative, chosen by the ex-communist states from the center and east of Europe. *“Transitions in general seem to be determined by the fact that no single political institutions will be created that can dominate the political*

*system. Rather, a diversified arrangement of checks, balances and flexible mechanisms helps to adapt the participation of the actors in the process of transformation”*(Bahro, Horst & al.(1998) Duverger’s concept: Semi-presidential government revisited. European Journal of Political Research(34), p. 208).

According to Robert Elgie (2005), there are three categories of semi-presidential countries. There are highly presidentialized semipresidential regimes, which are characterized by instability and can be masked extensions of authoritarian systems. This kind of semi-presidentialism borrows weak spots from the presidential regime, where “the winner takes all”. In most cases, they are found in countries that are not electoral democracies and are not considered free. For example, in this category are Guyana, Namibia, Peru, and South Korea, Kazakhstan, Russia and Yemen. Other type of semi-presidentialism is that with a ceremonial presidents and a powerful prime minister. These countries have success because the system functions using the parliamentary regime mechanisms. The president is a symbolic leader, with a few constitutional rights, the real power being in the prime minister hands. In this category are Austria, Bulgaria, Portugal, Ireland, Iceland and Slovenia. There are also semipresidential regimes with a balance of presidential and prime-ministerial powers, which are problematic because they generate institutional conflicts. Most of the critics come from here, because, even if they belong to the same party, the institutional system becomes unstable. Most states with this system are free, this system being a better choice than that the very powerful president. Even if this type of political regime may cause injuries, it is not fatal to democracy.

- **The Specificity of Romanian semi-presidential regime**

The Romanian semi-presidential system is moderate, being part of the third category of semi-presidential regimes, which means that there is a balance of powers between the President and the Prime Minister. Romania has had this system since May 1990. Even if they make part of the same coalition or party, the President and the Prime Minister tend to be in conflict, fact that provokes instability in the system. In Romania, the President continues to exercise powers that are not so large, so the prime minister has also a fundamental importance. The president can dissolve the Parliament only in exceptional cases, such as not allowing a vote of confidence from his government within 60 days (art. 85<sup>64</sup> and 89<sup>65</sup>, Romanian Constitution), and cannot stop the Parliament activity. Yet, there is a competition between Prime Minister and President,

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<sup>64</sup> Article 85- (1) The President of Romania shall designate a candidate to the office of Prime Minister and appoint the Government on the basis of the vote of confidence of Parliament. (Romanian Constitution, 2003).

<sup>65</sup> Article 89- (1) After consultation with the presidents of both Chambers and the leaders of the parliamentary groups, the President of Romania may dissolve Parliament, if no vote of confidence has been obtained to form a government within 60 days after the first request was made, and only after rejection of at least two requests for investiture. (Romanian Constitution, 2003).

which has always existed in the Romanian political system, although the two persons are of the same party or coalition.

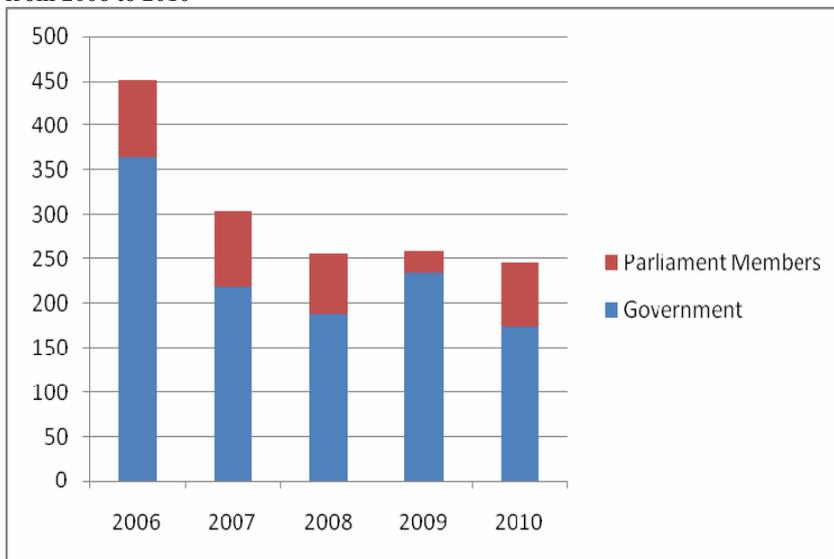
This type of semi-presidentialism was formed in the first years of Romanian transition, with the conflict between the first president after communist era, Ion Iliescu and the Prime Minister, Petre Roman, even if they made part of the same coalition. Since then, there have been conflicts and problems between the President and Prime-Minister. In this power struggle, the Parliament has its own issues: little differences between the two chambers, the Senate and the Chamber of Deputies, lack of trust from the citizens and the extensive involvement of the Government and President in the legislative process. Despite all these problems, the semi-presidential regime is appropriate for a crystallization period of the institutions relations in Romania.

### **III. The legislative process in the Romanian Parliament**

This paper section contains a study case of the relationship between the Romanian executive and legislative authority through the Emergency Ordinances, law projects, proposed by the Government and legislative initiatives, proposed by the deputies and senators, that were adopted by the Parliament, using a data base with all the laws between 2006 and 2010. It was used only the information that exists on the Chamber of Deputies website, because the Senate doesn't have a system where you can find all the details about the manner they voted for a law. The Senate and the Chamber of Deputies have similar powers and every law project must be analyzed by them.

In the specified period, Traian Basescu was the president of Romania. He first ran for election for the coalition DA in 2004, formed by the National-Liberal Party (PNL) and the Democratic Party, that became at the end of 2007 Democratic Liberal Party (PD-L) and then for PD-L in 2009. From 2006 to 2008, the Government was ruled by Calin Popescu Tariceanu, a PNL member and then, in 2009 and 2010, by Emil Boc, a PDL member. The analysis difficulties appeared in the government coalitions, because in these five years we have two big coalitions, the coalition DA, in 2006 and middle 2007 and the coalition PDL-PSD (Social-Democratic Party), in 2009, a minority government, with a Prime Minister in conflict with the President, in 2007 and 2008, and a government in alliance with the president in 2010. UDMR (The Democratic Union of Hungarians in Romania), a minority party in Romania, except for the year 2009, was a member of the government coalition in these years.

**Chart I: The law projects proposed by Government and Parliament members from 2006 to 2010**



From Chart I it can be observed that the majority of the laws adopted by the Parliament are Ordinances or law projects of the Government, but also an evolution of the number of laws approved over these years. In 2009, after the legislative elections at the end of 2008, the contribution of parliamentarians in writing the laws was the lowest, although it was expected them to be more involved in the legislative process after the insertion of the uninominal vote system. As a qualitative observation, the deputies and senators tend to reject their own proposals even if are sustained by members of their own parties. The evolution of this situation of the legislative proposal over the years shows that the parliamentarians' apathy is usual and doesn't differ depending of the coalitions or tensions between the President and Government.

**Table I: Situation of the organic and ordinary laws**

	Types of laws	Laws proposed by the parliamentarians	Laws initiated by the Government
<b>2006</b>	<b>Organic Laws</b>	25 (25%)	75 (75%)
	<b>Ordinary Laws</b>	62 (18%)	289 (82%)
<b>2007</b>	<b>Organic Laws</b>	37 (46%)	43 (54%)
	<b>Ordinary Laws</b>	48 (21%)	176 (79%)
<b>2008</b>	<b>Organic Laws</b>	40 (46%)	47 (54%)
	<b>Ordinary Laws</b>	29 (17%)	141 (83%)
<b>2009</b>	<b>Organic Laws</b>	10 (14%)	64 (86%)
	<b>Ordinary Laws</b>	15 (8%)	170 (92%)
<b>2010</b>	<b>Organic Laws</b>	28 (37%)	48 (63%)

	<b>Ordinary Laws</b>	45 (26%)	125 (74%)
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In the table I, there are revealed the number of the organic and ordinary laws adopted by the Parliament, depending on the initiator, the Government or the Parliament members. The number of ordinary laws proposed by the government is much higher than those proposed by lawmakers in all of the years. When it comes about the organic laws, normative acts with much more importance, the situation is slightly more balanced, especially in the years 2007 and 2008. The ordinary laws are easier to vote than the organic ones and the Government uses too often its right to impose Ordinances. The fact that the Government interferes many times in the legislative process is not a negative procedure, the problem is the low involvement of the parliamentarians, who must be those who make the laws, not only those who approve them.

Another qualitative observation is that from these laws, most of that proposed by the lawmakers were about Education, Culture and Administration. The laws on International Affairs, Security, Budget-Finances and Agriculture were proposed by the Government. This means that the “hard” categories of laws are initiated by the executive, especially those that are related with the budget division.

## Conclusions

The findings of the paper show a substantial change of roles between the Government and the Parliament in the legislative area. There is a lack of the real power that the Parliament has, being dominated by the Government and transforming itself into a “voting machine”. The relation of separation and collaboration between the two powers is transforming step by step into one of subordination. The semi-presidential regime helps this type of relation to develop, because the executive power dominated the political scene and the citizens tend to vote the party that they want to form the Government, not the politicians who represent them in the Parliament.

On the one hand, the decline of the Parliament influences the most important duty it has, that of making laws, and it can be related with the tensions between the Presidency and the Government, with the fundamental importance of the coalitions and parties and with the ambiguity that lies on the relations of these institutions.

On the other hand, it is also the perceptions and the behavior of the deputies and senators themselves that are not strongly involved in the legislative process and prefer to let the Government, which, because of its nature, implements the laws and it is more familiar with the problems, to decide most of the normative acts.

Next to this quantitative analysis, it will be welcome a qualitative one where the importance and the gravity of the laws adopted can be studied, to see if also the major laws of the country are still proposed by the Government.

## References

1. Bahro, Horst & al.(1998), *Duverger's concept: Semi-presidential government revisited*, European Journal of Political Research(34), 201–224.
2. Cheibub, Jose Antonio and Chernykh, Svitlana (2009), *Are semi-presidential constitutions bad for democratic performance?* Const Polit Econ 20, 202–229.
3. Elgie, R.(2005) - *A Fresh Look at Semipresidentialism*, Journal of Democracy, 3(16), 98-112
4. Elgie, R. (Ed.)(1999), "*Semi-presidentialism in Europe*," Comparative European Politics, Oxford University Press Inc., New York.
5. Guerrero Salom, E.(2004) *El Parlamento- Que es, como funciona, que hace*, Editorial Sintesis, Madrid.
6. Ionescu, C. (2002) *Instituții politice și drept constituțional*, Editura Economică, București.
7. Locke, J. (2004) *Second Treatise on Government*, Barnes&Noble Publishing.Inc.
8. Norton, P. (1993) *Does Parliament Matter?*, Warvester Wheatsheaf, Hertfordshire.

## Documents and Websites:

9. The Romanian Constitution: [http://www.cdep.ro/pls/dic/site.page?den=act2\\_2&par1=3#t3c2s0a85](http://www.cdep.ro/pls/dic/site.page?den=act2_2&par1=3#t3c2s0a85) (accessed at 10.06.2011)
10. The Chamber of Deputies Website- <http://www.cdep.ro/pls/> (accessed from 10.03.2011 to 12.06.2011)

# Language Contact and Change in Late Old English and Early Middle English

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The present paper will focus on the mechanisms and factors of linguistic change, by presenting the main reasons that lead to the occurrence of new forms in a language. The main theories will be outlined with respect to the interplay of internal and external factors in language change. Furthermore, we will present the main types of factors by taking into consideration the effects the Scandinavian influence had on the English language as a result of the settlement of the Northmen in England before the Norman conquest. As we proceed with the presentation of borrowings which occurred due to Scandinavian influence on different linguistic levels (phonological, lexical, semantic, morphological and even syntactic), we will try to present the main reasons for the changes and see to what extent change due to foreign influence is possible (can it also occur on a morphological or syntactic level or is change only internal at this stage?). Throughout the presentation we will present a parallel between the role of the interaction between the two peoples and the types of changes which occurred in the late Old English and early Middle English periods.

## 1. Introduction

Two major factors can be identified in the process of language change: internal factors, within the language and external factors, outside the language. According to Gerritsen and Stein (1992) the internal factors are those factors “inherent in, and arising out of, any given synchronic state of the language system”, while the external factors represent “the forces arising out of the location and use of language in society” (p. 7).

Sociohistorical linguistics examines almost exclusively the social dimensions, while generative theories focus on structure exclusively, on the syntactic component, almost denying social factors any important or decisive role in language change.

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It is often difficult to establish between different types of motivating factors. If we regard language as an independent, abstract system we may avoid its main purpose, that of communication and thus its being manipulated by the speakers who play a role in influencing its development. While many schools of linguistics (the Neogrammarians, structuralists and the Generative grammarians) tended to focus on the internal structure of language<sup>67</sup>, a growing interest in contact-induced language change has developed in the second half of the twentieth century through works such as Weinreich's (Weinreich, 1953, cited in Fisiak, 1995).

There are linguists who argue that change is either endogenous (internal) or exogenous (external), preferring the total exclusion of the other, the so-called either-or mentality (Jones, 2002:3). This may also be determined by the fact that the terms of the dichotomy are themselves antonyms. Nonetheless, the development of language is continuously being influenced by its speakers and thus, concentrating only on the internal structure of language is not sufficient for explaining language change. Despite their being regarded as a trigger for change, external factors such as language contact are placed on second position behind internal motivation.

Examining whether contact plays a role in change is seen as a last resort when analyzing change. It is only when no internal factor can be found, that elements external to the linguistic system have been sought for motivation. (Thomason and Kaufman, 1988:58)

The most frequent external cause of change is language contact. In the area of syntactic change, the separation of these factors is not always desirable. Internal and external factors cannot be separated, because syntactic change is often the result of their interaction.

External factors are decisive for the survival of a borrowed word in a language. The biggest the social support innovations and borrowings receive in a language, the biggest the chances that they survive in a language. Thus, linguistic change is a process both socially and internally motivated, the internal factors set borders in the types of innovations and borrowings which may spread in a linguistic community. Innovations need social support, while borrowing needs social support or social and linguistic support in order to survive. Whereas syntactic 'innovation' is caused by internal factors, a further change may be triggered by social factors (prestige, normative consensus)<sup>68</sup>.

Gerritsen and Stein (1992) recognize the importance of both factors (internal and external) in linguistic change and mention three reasons for the fact that we have little

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<sup>67</sup> According to the Neogrammarians' perspective, regular sound change was internally motivated

<sup>68</sup> The distinction between "innovation" and "change" is explained by Milroy (Milroy, 1992 apud. Stockwell, 2007) for whom innovation introduced by an individual speaker does not involve change but represents the beginning of what may but need not become a change. It is the equivalent of "exploratory expressions" used by Harris and Campbell (1992: 75).

information about the occurrence of syntactic changes: a) 'a text contains infinitely more representations of phonemes and morphemes than of constructions' and the occurrence of certain constructions depends on the type of text studied; b) theories of syntactic change were developed only recently; c) there is lack of agreement on what is to be considered a syntactic change. (p.2).

According to Harris and Campbell, syntactic change takes place due to three main mechanisms: reanalysis, extension and borrowing.

Reanalysis<sup>69</sup> and extension involve change internal to a language, whereas borrowing represents an external mechanism, being defined as

a mechanism of change in which a replication of the syntactic pattern is incorporated into the borrowing language through the influence of a host pattern found in a contact language. (Harris and Campbell, 1995: 51).

Reinterpretation plays an important role both in semantic and in syntactic change. Unlike semantic change, syntactic change is characterized by a greater degree of unpredictability and is more abstract, is highly rule-governed and syntactic change may have more abstract motivations than semantic change (Hock, 1991:312).

Language contact is a situation in which speakers of one language are familiar with the speakers of another language. Although it often leads to change through borrowing, contact is not change. Language contact is an external mechanism as it involves motivations towards change from outside the affected language.

A common result of linguistic contact is lexical borrowing, one productive way in which a language may increase its lexical content. Lexical items are borrowed because they carry cognitive meaning. The speaker may borrow the items due to a conscious need which is usually external. It may be for reasons of prestige, because he looks for new items for greater expressiveness, or because of a cultural gap in the vocabulary of his language.

As far as syntactic borrowing is concerned, other factors may be responsible for the introduction of a new construction. For all types of borrowing (except to a certain extent lexical borrowing) a certain length and intensity of contact is crucial (available for oral and written contact).

With respect to the relation between the English and the Scandinavian settlers it can be deduced from the strong relations that were established between the two peoples. In some places, the Scandinavians gave up their language, and in others they continued to speak it<sup>70</sup>. They were often bilingual, because of frequent intermarriage and the close relationship between the English and the Scandinavian dialects (in Northumbria and

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<sup>69</sup> Reanalysis has also been termed reinterpretation (Hock, 1991: 329) but the two researchers make no distinction between them.

<sup>70</sup> in some parts of Scotland until the 17<sup>th</sup> century

Mercia). Regarding the mutual intelligibility between Old English and Old Norse<sup>71</sup>, the Scandinavian language which was brought to England by the Danes who settled in the country in the ninth century did not differ very much from English, both belonging to the old Germanic family<sup>72</sup>.

Furthermore, the two languages were spoken by the same social strata and they enjoyed equal rights. The result was that the Scandinavian and the English dialects intermingled and the process was strong in the North and in the East of the country.

Most of the Scandinavian words were recorded only in the Middle English period, but they were borrowed in the Late Old English period as their forms have undergone sound changes which were typical of the period of transition between Old and Middle English. The only cultural region in England in that period was Wessex, which was the least influenced by the Danish invaders. The Old English texts contain few loans, which were used for conversation between Englishmen and Vikings, but which did not cover many domains, except those concerning ships and weapons, and which have not survived into modern English.

The most reliable tests for borrowed words can be found in the phonological aspects which developed in the North Germanic and West Germanic areas. North Germanic languages have undergone several changes which were not shared by the West Germanic languages<sup>73</sup>. There are several surviving pairs in English such as 'nay' (ON *nej*, while OE *ná* developed into Modern English 'no'); 'to raise' (ON *reisa*) - 'to rear' (OE *ræran*); 'skin' (ON *skinn*) - 'hide' (OE *hyd*).

Another important criterion by which one can recognize a Scandinavian influence is the development of the sound 'sk'<sup>74</sup>. In OE the 'sk' sound is palatized to /sh/, except possibly in the 'scr' cluster, while in ON it has preserved its hard pronunciation of /sk/. Thus, the native words in Modern English are words such as: 'ship', 'shall', 'shin', 'fish', while those borrowed from Scandinavian are: 'ski', 'sky', 'skill' (Baugh, 1991:96).

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<sup>71</sup> Old Norse-(Norwegian: *norrønt*) represents the North Germanic language/dialects of Norway and Iceland (also the Faroese Islands and other island colonies of Norway) between the seventh and the fifteenth centuries. The term shall be used for the standardized Old Norwegian.

<sup>72</sup> A large amount of words had similar forms and meanings due to their belonging to the Germanic branch ('mother', 'father', 'winter', 'come', 'see', 'house') and, thus, the mutual understanding between the two peoples. Old English and Old Norse differed more from a grammatical point of view, as the lexical ground permitted them to understand each other to a significant extent.

<sup>73</sup> For instance, Proto Germanic *æ* became the sound *a* in Old Norse, whereas Old English originally changed the vowel *æ* to *a* but in most cases it returned to the sound *æ* ('to let' was *lata* in ON and *lætan* in OE).

<sup>74</sup> The Oxford Universal Dictionary contains approximately thirty words beginning with sk-/sc- of Danish origin in the active vocabulary.

The hard pronunciation of “k” and “g” is preserved in such words as: ‘give’, ‘get’, ‘kid’, ‘kirk’, ‘egg’. The Old English pronunciation would have contained a palatal, voiced fricative /j/ in the vicinity of a front vowel, but the presence of the velar stop “g” in words such as “give” or “get” suggests Scandinavian origin.

From a semantic perspective, there were many words which used to have identical forms, but different meanings. For instance, the English word ‘bloom’ could have derived both from OE *blom(a)* or Scandinavian *blóma*, but the meaning preserved in present-day English is a Scandinavian one<sup>75</sup>.

The earliest borrowings referred to concepts related to the Scandinavian culture. There were two kinds of relationship between the native Anglo Saxons and the Scandinavian invaders: a violent one and a peaceful one, which are reflected in the English language which determine the type and number of borrowings in each period. Thus, in the beginning of the Scandinavian invasions, the number of borrowed words was small and denoted objects and concepts which the Anglo-Saxons were unfamiliar with. To this category words referring to seafare and warfare belong<sup>76</sup>. Later, words representing administration and law<sup>77</sup> are borrowed from the Scandinavians. New concepts and objects being introduced into the speech community, new words are needed<sup>78</sup>.

Old English is widely known through the work of tenth and eleventh century scribes, working in the South and West of the country. These scribes were unlikely to use loanwords that were in use in the Scandinavian settlement area, thus of the 900 attested North Germanic loans into English, only 150 appear in Old English sources, while the others are encountered in the twelfth and thirteenth centuries in Middle English texts (even though they must have been around earlier).

The Scandinavian words that entered the English language later are related to everyday life. No new ideas are introduced, as the Anglo Saxons and the Scandinavians had similar lifestyle. Some examples include: ‘egg’ (ON *egg*), “sister” (ON *sister*, cognate with OE *sweostor*), ‘leg’ (from ON *leggr*), ‘die’ (ON *deyja*), ‘get’ (ON *geta*, ‘to reach’), ‘give’ (ON *gefa*).

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<sup>75</sup> The OE meaning was ‘ingot of iron’, while in Scandinavian, *blóma* meant ‘flower’. The corresponding OE word for ‘flower’ was *blóstma* which survives in Modern English as ‘blossom’. Nonetheless, the OE meaning of the word *blom(a)* has survived in metallurgy (Baugh, 1991:96-7).

<sup>76</sup> *barda* (‘beaked ship’), *cnearr* (‘small warship’), *scegb* (‘vessel’), *lip* (‘fleet’), *scegbmann* (‘pirate’), *dreng* (‘warrior’), *hofding* (‘chief, ringleader’), *orrest* (‘battle’) (Jespersen, 1926:67)

<sup>77</sup> *lagu* (‘law’), *útlagu* (‘outlaw’), *mál* (‘action at law’, ‘lawsuit’), *hústing* (‘assembly’, ‘tribunal’), *niding* (‘criminal’) (Jespersen, 1926:67)

<sup>78</sup> In certain languages, borrowings may be replaced with indigenous terms (e.g. law of the French government *Loi Toubon*, 1994, which reinforced the compulsory use of French terminology in official publications)

Even later, in the sixteenth century new words such as ‘batten’; ‘scrag’, ‘smelt’ ‘rug’, ‘slag’ were introduced. The seventeenth and eighteenth century gave: ‘troll’, ‘keg’, ‘rune’, ‘cosy’, and the nineteenth and twentieth century gave ‘ski’, ‘slalom’, ‘fjord’, ‘nag’, ‘ombudsman’.

A considerable Danish influence is recorded to have been applied to English place-names and personal names. In pre-conquest Danelaw, according to Sir Frank Stenton (1981), there are few records concerning early names of Scandinavian origin. The Scandinavian place-names<sup>79</sup> can be found especially north of the old Danelaw boundary, the largest number of such names being recorded in Lincolnshire, Yorkshire and in Leicestershire, where there are districts where more than 75% of the place-names are of Scandinavian origin.

Besides lexical influences, the close connection between Old English and Old Norse is illustrated in the grammatical changes from the Middle English period. The most frequent borrowings are the lexical units, while the morphological and syntactic borrowings occur rarely in a language<sup>80</sup>. The Scandinavian influence extended on English morphological classes such as: pronouns (the forms ‘they’, ‘them’, ‘their’), verbs (the present plural ‘are’ of the verb ‘to be’; the infinitive marker ‘at’), quantifiers (‘both’ and ‘same’); locatives (‘whence’ and ‘hence’), prepositions (‘til’ and ‘fro’), conjunctions (‘though’), adverbs (‘aloft’, ‘athwart’, ‘seemly’).

There was a simplification process of the inflectional forms and a tendency towards a fixed topic of words during the Middle English period, from 1150 to 1500. The only inflectional endings of the noun are the *-s* ending of the plural and of the possessive singular (which are probably due to Scandinavian influence). The adjective lost all the inflections except for the comparative and superlative forms in *-er*, *-est*.

The loss of several inflections began in the Northern regions of England, where Danelaw rule was dominant, and it gradually spread to the rest of the country so that by the end of the Middle English period the inflectional endings were reduced to their modern characteristics and the language was already an analytic one, based on a fixed word order, an excessive use of prepositions and auxiliaries in order to show the relationship of words in a sentence.

The most important Scandinavian syntactic influences in Old English are introduced by Otto Jespersen (1926) and concern the omission of pronouns in relative clauses, the omission of the conjunction ‘that’ the use of ‘will’ and ‘shall’ in Middle English and the universal position of the genitive case before the noun (p. 76-7).

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<sup>79</sup> The most common Scandinavian suffixes which appear in place names are: ‘-by’, ‘-thorpe’, ‘-toft’, ‘-thwaite’, ‘-holme’, ‘-kirk’, ‘-ey’, ‘-wik’.

<sup>80</sup> Otto Jespersen (1955) states ‘An Englishman cannot thrive or be ill or die without Sc words; they are to the language what bread and eggs are to the daily fare’ (p.74).

By presenting the different perspectives on the internal and external factors which contributed most to the instantiation of syntactic change we reached the conclusion that linguistic contact has a secondary role behind internal motivation, and it functions as a catalyst. The best motivated internal change may never occur in the absence of an external catalyst, and most changes are a combination of internal and external factors.

Furthermore, there are two main reasons for borrowing words from a source language into a target language: the intention of a society to gain prestige and power and the intention of the speakers to have a designation for objects or concepts which had been unfamiliar to them. Both reasons are available for the Scandinavian influences in English which occurred not only in the Old and Middle English lexicon but also in its morphology and syntax.

We intend to further develop the ideas presented in the paper and analyze in detail the mechanisms of change which contributed to the change of word order in English, focusing on the internal factors, but not neglecting the approaches which demonstrate this change based on external factors.

## References

1. Baugh, Albert C. (1991) *A History of the English Language*. London, Routledge.
2. Fisiak, Jacek (ed.) (1995) *Linguistic Change under Contact Conditions*. Berlin, Walter de Gruyter
3. Gerritsen, Marinel and Dieter Stein (1992). *Internal and External Factors in Syntactic Change*. Berlin, Mouton de Gruyter.
4. Harris, Alice C. and Lyle Campbell. (1995) *Historical Syntax in Cross-linguistic Perspective*. Cambridge, Cambridge University Press.
5. Hock, Hans Heinrich. (1991) *Principles of Historical Linguistics*. 2<sup>nd</sup> edition, Berlin, New York, Mouton de Gruyter.
6. Jespersen, Otto (1955). *Growth and Structure of the English Language*, Chicago, University of Chicago Press.
7. Jones, Mari, C. and Edith Esch (eds.) (2002). *Language Change. The Interplay of Internal, External and Extra-Linguistic Factors*. Berlin, Mouton de Gruyter
8. Kelemen, Attila (2007) *Influența Scandinavă asupra Lexicului și Sintaxei Limbii Engleze Vechi și Medii*. Doctoral Dissertation. Cluj Napoca, The Faculty of Letters, Babeș-Bolyai University.
9. Mossé, Fernand (1962). *Manuel de l'Anglais du Moyen Age dès origins au XIV<sup>e</sup> siècle*. Paris, Aubier.
10. Stenton, Sir Frank (1971) *Anglo-Saxon England*. Oxford, Clarendon.
11. Stockwell, Peter (2007) *Sociolinguistics. A resource book for students*. London, New York, Routledge
12. Thomason, Sarah Grey and Kaufman, Terrence (1988) *Language Contact, Creolization and Genetic Linguistics*. Berkeley, University of California Press

# Reproduction of Armenianness Amongst Youth in Syria, Turkey and Britain

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This paper presents a short introduction of ongoing PhD project which is about reproduction of Armenianness amongst young generation in diasporic communities. National and ethnic identity is generally studied by modernist approach within the studies of nationalism and ethnicity. Obviously, modernist theories, which focus on institutions, economic and political developments, are dominant in the field. They tend to see identities as fixed and holistic things. However, this approach does not explain popularity, variability and social power of nationalism amongst youth in global age.

This paper argues that Armenianness is not holistic thing. It is a perspective which shapes cognitively by people's attitudes, emotions and cultural components. Therefore, it is possible to observe variability in reproduction of Armenianness. Focusing on different diasporic communities leads to emerge different voices of Armenianness. Three field works in Syria, Turkey and Britain will help to find answers following questions; a) how do young members reproduce the meaning of Armenianness? b) how do they perform? and c) which cultural components do affect the process of reproduction and performing? These questions will be analysed by using in-depth interview and participant observation. Semi-structured questions will be asked to 18-25 years old Armenians in Syria, Turkey and Britain in order to understand content of Armenianness. Additionally, the project aims to reach following purposes by analysing respondents' answers. Firstly, it seeks to understand power of nationalism and ethnicity in broad context and also to respond the question of why ethnic/national identity is still matter especially in young generations in global age. Secondly, it aims to represent importance of bottom up dynamics once they are interpreting and reproducing ethnicity and nationalism in everyday. Finally, more specifically, it seeks to bring in a new dynamic and perspective to studies of Turkish-Armenian.

**Key Words:** Armenian Diaspora, Nationalism, Ethnicity, Everyday Life, Youth.

## 1. Overview of the Project

*“...[nationalism] cannot be understood unless also analyzed from below, that is in terms of the assumptions, hopes, needs, longings and interests of ordinary people” (Hobsbawn, 1991: 10)*

Hobsbawn's words are an important reminder for students of nationalism and ethnicity since it shows how nationalism and ethnicity should be analysed. Although the concepts of nationalism and ethnicity are well-known terms in both academic and mundane literature, they have a negative reputation in the public eye because they have been associated with conflicts, wars, fascism, and genocides for a long time (Smith, 1996). Assuredly, these reputations find reflection in modernist theories which see nationalism and ethnicity as a false consciousness, a fabric product (Hobsbawn, 1996) or preferences and competitions amongst elites (Brass, 1979). However, critical approaches namely ethno-symbolist and post-structuralist tend to see these concepts differently and have started shaking modernist theories' domination in the field for thirty years.

Scholars of ethno-symbolism argue that some of the modern nations were constructed on pre-modern ethnic which “...[is] a named human population with myths of common ancestry shared historical memories, one or more elements of culture, a link with a homeland and sense of solidarity among at least some of its member” (Smith, 1991:29). Armstrong (1982) Conversi (1995) and Smith (1998) highlight importance of cultural components such as symbols, memories and myths in the process of nation-building and participation of ordinary men. More differently, the post-structuralist school tends to understand the phenomenon of nationalism and ethnicity through focusing on practices and experiences of people in everyday life (Ozkirimli, 2009). Additionally, they emphasise different unit of analysis such as women, youth and diaspora which often are neglected by modernist and ethno-symbolist approaches (Bhabha, 1990). Post-structuralist scholars such as Brubaker (2004; 2002) and Fox (2008) argue that perceptions, meanings and experiences of nationalism and ethnicity are shaped cognitively by people's preferences and variability of nationalism and ethnicity can be observed through focusing on everyday life. Small details such as flags, symbols, stamps, social memories, commemorations etc. reproduce nationalism constantly (Billing, 2005). Even though there are minor differences between post-structuralist and ethno-symbolist approaches, it is hard to draw a clear boundary. Both approaches seek to understand nationalism and ethnicity from below and highlight different dynamics rather than only the role of elites.

The majority of works e.g. Laciner (2002; 2001), Kantarci (2001) and Kasim (2002) about Armenian Diaspora and nationalism have been affected by the modernist school. They tend to see the Armenian diaspora as a holistic actor who creates and maintains Armenian ethnic/religious/national identity. However, they undervalue ordinary persons' attitudes and preferences since their analyses are very institutional, so differences amongst people are neglected. For instance, according to Laciner (2005),

the main purpose of diasporic organisations such as church, youth clubs or social clubs is to protect Armenian identity from the threat of assimilation in the host countries. Thus, it could be argued that these institutions have ontological duties. It should be mentioned that his consideration is partly true, but mostly insufficient because his approach is not enough to account for why and how the young generation adopt identities which is imagined/constructed/designed by diasporic institutions. This adaptation process should be considered comprehensively since young generation is a complex entity and has usually hybrid identity. Young members of diasporic communities benefit from fruits of globalisation such as using transnational networks, internet and pop culture. They are mainly integrated in their host countries, speak more than one language, in some cases they work prestigious positions in host countries such as member of the parliament or media and business sectors. Therefore, approaching nationalism and ethnicity only from a historical and ontological perspective leads to fall into reductionism. One likely to observe several reductions works in Turkish-Armenian studies. Many works obsessively focus on identity and the issue of 1915 from historical point of view. For instance, Baliozian (1980; 1984), Bardakjian (1985), Bayramoglu (1985), Cohobanian (1914), Houspian (1997; 1999), Cengiz (2009) and Ovena (1980) tend to approach Armenian diaspora and identity from historical perspective. Therefore, Armenian studies do not escape vicious circle of institutionalism. However, it is possible to find a few critical works in Armenian Studies parallel with interdisciplinary tendency in social science. A few quantitative or qualitative works on Turkish Armenians such as Kentel (2009), Aghanian (2007), Arusyak (1992) and Pattie (2011) aim to put forward different aspects of Armenian Diaspora and show various perceptions/expectations of members of diaspora. As Kentel (2007) argues Armenianness is a relatively flexible concept since, for some members of Armenian diaspora, it is only cultural and ethnic identity, while some of them define Armenianness in religious way. However, there are some weaknesses in these works because they do not explain why Armenianness is various in each diaspora communities. These weaknesses mainly derive from two reasons. Firstly, the subject (nationalism, ethnicity, Armenian diaspora studies) is interdisciplinary. Secondly, there is no ground theory which explains nationalism in everyday life. Nevertheless, well-theorised studies such as *Billing's Banal Nationalism*, *Brubaker's Ethnicity without Group*, *Edensor's National Identity, Popular Culture and Everyday Life* and *Certaue's Practice of Everyday Life* can help researchers to overcome these weaknesses. Needless to say, these studies seek to put forward the importance of everyday life and mundane practices such as flags, stamps, marches, food, music, memories or television in reproduction of national identity and ethnicity. For this reason, they have become main references for both critical scholars and students of ethno-symbolism and post-structuralism.

Following the ethno-symbolist and post-structuralist approaches, this project is about the reproduction of Armenianness amongst young members of diasporic communities

in Syria, Turkey and Britain. How meaning of Armenianness is reproduced and experienced by youth who share cultural components in everyday life will primarily be investigated. Through conducting qualitative research, in-depth interviews (18-30 years old male and female who are descendant of survivors of the tragedy of 1915) and participant observation, the project addresses to following points. *Firstly, it seeks to understand how diasporic nationalism and ethnicity are reproduced in everyday life.* This is an important effort, because it not only helps us to understand the power of nationalism and ethnicity in a broader context, but also answer the question why ethnic/national identity still matters especially in young generations in a global age. Previous theories and approaches unfortunately do not provide sufficient explanations in the study of nationalism and ethnicity since they do not leave their simplistic tendency (such as overestimating roles of state and elite). *Secondly, it aims to represent the importance of the cultural components once they are interpreting and reproducing ethnicity and nationalism in everyday life.* Focusing on cultural components allows us to see where the power of nationalism comes from and why nationalism is important for people. This provides important data for policy makers and researchers. *Finally, more distinctively, the project aims to bring in a new motivation and perspective to studies of Turkish-Armenian.* The Armenian nationalism and ethnicity are often studied within the department of history and international relations in thinking about the roles of diaspora, Armenian terrorism, so-called genocide<sup>81</sup> and achieves amongst scholars. Different aspects of Armenian nationalism and ethnicity are usually neglected.

However, focusing on different dimensions and aspects of Armenianness at various layers is significant for both academic and practical reasons. Firstly, it contributes to develop scope of theories of nationalism and ethnicity. As is known these theories mainly focus on nationalism, national identity and ethnicity amongst homeland people. They do not have clear explanation about how national/ethnic identity is experienced amongst diasporic people. Focusing on different dimensions leads to emerge a 'new box' between diaspora and ethnicity studies and provides significant contributions in order to understand power, role and importance of cultural components and ethnic identities amongst young diasporic members by using interdisciplinary methodologies. Secondly, it could help the process of policy making. Considering different aspects of Armenianness, nationalism and ethnicity amongst young members of diasporic communities provides accurate data for policy making process and further academic researches. Policy and decision makers should know all differences, similarities and contradictions before starting to develop any strategy. It can be argued that if target groups are analysed comprehensively, strategies and policies which are developed by

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<sup>81</sup> Armenian scholars started calling the tragedy of 1915 as genocide after 1965 which was the 50<sup>th</sup> remembrance day. As Laciner argues that the assimilation thread of second generation relates to this conceptualisation, so they have aimed to protect their identity by victimising previous events.

policy-makers would be better. Therefore, cliché knowledge, limited analyses and strategies in policies of the governments and Armenian Studies would be overcome. Thirdly, highlighting different voices and perceptions about nationalism and ethnicity amongst diaspora members lead to moderate official and non-official relations between Turkish and Armenian governments as well as societies namely diasporic, Turkish and Armenian. According to contemporary report produced by Tesev (2006), each society does not have sufficient knowledge about each other's political, social and cultural features and that limited knowledge comes from one type of source and contain dangerous generalisations and negative stereotypes. As a result of considering different voices and perceptions about nationalism and ethnicity amongst diaspora members, suspended processes of dialogue, (because of so-called genocide debates), could be launched and mutual knowledge about each other can increase, so negative stereotypes and attitudes about each others would change.

## **2. Research question**

How is the meaning of Armenianness reproduced and experienced by young members of Armenian diasporic communities in Turkey, Syria and the UK?

### **2.1 Sub-Questions**

Why do young members feel Armenian themselves [even though they have not seen Armenia and not spoken the Armenian Language]?

Which element/s [symbols, memories and myths] do remind ethnicity?

Why are social memories [tragedy of 1915] important for them?

Do young generations' ethnicities clash with their other identities?

## **3. Methodology**

This study will be designed as a qualitative research. It is thought that qualitative methods are practical to reach the aims which are mentioned above. Apart from practical reasons, another reason for choosing qualitative methods derives from the essence of the project which aims to understand personalities, subjectivities, emotions, experience and practices. As is understood from the research questions, they are not quantifiable. In order to achieve the purposes of the project, the data will be collected using primary and secondary sources. As a primary sources, two methods are going to be applied namely interview and participant observation. On the one hand, I will investigate how perspectives on Armenianness develop, which reference points are used to define Armenianness, why they pay attention cultural components (or not) with open ended questions. Therefore, Armenianness will be defined according to the words

of young members, so they become active actors who construct and give meaning to cultural components (symbol, myth and memory) of ethnic/national identity instead of accepting the general discourse on Armenian identity. I am going to use a snowball technique in order to choose participants. I will follow previous academic and personal contacts' references. Therefore, I can enlarge my contact diary and number of participants. On the other hand, the method of participant observation will be used in religious ceremonies at the Armenian Church, social activities of young members in schools, their social clubs or social neighbourhood. This method will help us to understand how Armenianness is experienced and reproduced unconsciously by young members in everyday life. In each area, Armenianness is experienced unconsciously via referring/using cultural components.

Assuredly, both methods have some limitations. For instance, interviewees may not want to talk about serious issues such as tragedy of 1915. Also questions may put participants in stressful situations leading them to want to discontinue the interviews. Moreover, the ethnic identity of the researcher makes conducting participant observation difficult because they may adjudge negative serotypes to the researchers, so they may not want to interact so much. Therefore, these problems may cause delay in timeline of the project. However, these problems can be overcome by establishing empathy. Communicating with them honestly and neutrally will help to remove boundaries between the researcher and interviewees. In addition, building empathy will help participants to feel more relaxed and help the researcher to increase his safety.

As secondary sources; previous surveys, journals and newspapers will be used to improve knowledge about Armenian history, developing of diaspora communities and ethnicity. In each resource, how cultural components affect perception of youth on Armenianness will be highlighted.

## References

1. Aghanian, D. (2007) *The Armenian diaspora: cohesion and fracture*, University Press of America.
2. Balibar, E. (1990) 'The Nation Form: History and Ideology', *New Left Review*, 13(3), 334-335.
3. Baliozian, A. (1980) *The Armenians: Their History and Culture* Saddle Brook: Ararat Press.
4. Baliozian, A. (1984) *The Armenian Genocide and the West*, Jerusalem: Armenian Case Committee.
5. Bardakjian, K. (1985) *Hitler and the Armenian Genocide* Cambridge, Massachusetts: Zoryan Institute
6. Bayramoglu, N. (1985) *Amerika Birlesik Devletlerinde Lobi Faaliyetleri [ Lobby Activities in USA]*, Ankara: Dis Politika Enstitusu
7. Billing, M. (2005) *Banal Nationalism*, London: Sage Publications
8. Brass, P. (1979) 'Elite Groups, Symbol Manipulation and Ethnic Identity among

- the Muslim of South Asia ' in Taylor, D. and Yapp, M., eds., *Political Identity in South Asia*, London: Curzon Press.
9. Brubaker, R. (2002) 'Ethnicity without groups', *European Journal of Sociology*, 43(02), 163-189.
  10. Brubaker, R., Loveman, M. and Stamatov, P. (2004) 'Ethnicity as Cognition', *Theory and Society*, 33(1), 31-64.
  11. Cengiz, R. (2009) *Ermeni Soykırımı Tartışmaları [Debate on Armenian Genocide]*, Konya.
  12. Certeau, M. (1984) *The practice of everyday life*, Berkeley: University of California Press.
  13. Chobanian, A. (1914) *The People Armenian: Their Past, Their Culture and Their Future*, London.
  14. Cohen, R. (2008) *Global Diasporas*, Routledge.
  15. Conversi, D. (1995) 'Reassessing Current Theories of Nationalism: Nationalism as Boundary Maintenance and Creation ', *Nationalism and Ethno Politics*, 1(1), 73-75.
  16. Fox, J. E. and Miller-Idriss, C. (2008) 'Everyday nationhood', *Ethnicities*, 8(4), 536-563.
  17. Herzig, E. and Kurkchyan, M. (2005) *The Armenians: past and present in the making of national identity*, RoutledgeCurzon.
  18. Housepian, M. (1997) *The Armenian People from Ancient to Modern Times*, New York: St. Martin's Press.
  19. Housepian, M. (1999) *Remembrance and Denial: The Case of the Armenian Genocide*, Michigan: Wayne State University Press.
  20. Kantarci, Ş. (2001) 'ABD ve Kanada'da Ermeni Diasporası: Kuruluşlar ve Faaliyetleri [Armenian Diaspora in the USA and Canada: Institutions and Their Activities] ', *Ermeni Araştırmaları Dergisi*, 1(3), 67-130.
  21. Kasım, K. (2002) 'Diaspora'nın Ermenistan Dis Politikasına Etkisi [The Effect of Diaspora on Armenian Foreign Policy] ', *2023*, (12), 42-46.
  22. Kentel, F. (2007) *Türkiye'de Azınlık Olmak [Being a minority in Turkey]* İstanbul: Norzartok.
  23. Kentel, F. and Ozdoğan, G. (2009) *Türkiye'de Ermeniler : cemaat, birey, yurttaş [Armenians in Turkey: Gemeinschaft, Individual, Citizen]* İstanbul: İstanbul Bilgi University
  24. Laciner, S. (2001) 'Armenian diaspora in the United Kingdom' in Kasım, K., Laciner, S. and Iyigüngör, A., eds., *Armenian diaspora in Australia, the United Kingdom and Germany* Ankara: Eren.
  25. Laciner, S. (2002) 'Ermeni Kimlik Bunalımı ve Güç Politikalarının Bir Ürünü Olarak Ermeni Sorunu [Armenian Identity Crisis and Armenian Issue as A Product of Power Politics]', *2023 Dergisi*, (Nisan), 56-61.
  26. Laciner, S. (2005) *Türkler ve Ermeniler, Bir Uluslararası İlişkiler Çalışması [Turks and Armenians, A study of International Relations]*, 2 ed., Ankara: Usak.
  27. Ovena (1980) *A Director of Armenian Diaspora Personalities and Organisations*, Beirut: Ovena.
  28. Özkirimli, U. (2009) *Theories of Nationalism: A Critical Introduction*, London: Palgrave Macmillan.
  29. Pattie, S., Sarkissian, G. and Kerovpyan, M. (2011) *Who Are the Armenians?*, London: Armenian Institute

30. Smith, A. D. (1991) *National Identity*, Harmondsworth: Penguin.
  31. Smith, A. D. (1998) *Nationalism and Modernism: a Critical Survey of Recent Theories of Nations and Nationalism*, London: Routledge.
- Smith, A. D. and Hutchinson, J., eds. (1996) *Ethnicity Reader*, Oxford: Oxford Paperbac

# Service users' personality profile as an indicator of engagement in substance misuse treatment

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**Keywords:** treatment engagement, personality traits, characteristics adaptations, substance misuse treatment

## 1. Introduction

The impact of substance dependence is pervasive and has a severe influence on all structures of society. By taking epidemic dimensions, it represents one of the main public health and social concerns of the global network. Regardless substantial evidence on drug treatment effectiveness, questions remain which specific components of treatment hinder or facilitate recovery (Graff et al., 2009). Treatment engagement has been identified as a major factor contributing to clients' retention and key mediator of positive outcome in substance misuse treatment (Simpson & Danserau, 2008). Nevertheless, it remains difficult to draw conclusions regarding specific predictors of clients' engagement. At the same time, early drop-out represents a wide spread problem in substance misuse treatment (Darke et al., 2011; Mulder et al., 2009). Alarming data worldwide indicate that around a third of clients usually drop out after the initial assessment, whereas from those who initiate treatment approximately two thirds drop out early on (Cournoyer et al., 2007; Jones et al., 2009). It appears there is a need to develop treatment responses that facilitate engagement and target clients' major attrition vulnerabilities. In this context, of particular concern is the complex relationship among clients' long lasting, enduring personality traits and their phenotypic expression within treatment process. Based on the above, this study will investigate the potential role of personality dimensions within treatment process.

### Treatment Engagement

Several studies in general psychotherapy and substance misuse indicate that clients' active engagement in therapy has been consistently associated with increased tenure in treatment, reduction of drug use and improved post treatment outcomes (Hser et al., 2004; Simpson, 2004). Despite substantial attention on treatment engagement, there is no single established definition that adequately captures its' entire meaning, resulting in numerous inconsistencies in operationalisation and measurement.

In this context, engagement has been defined in a dichotomous, singular and multivariate manner. Further complexity in the literature stems from the utilization of various terms that have been used to examine engagement, including treatment involvement (Simpson et al., 1997), active participation (Connors et al., 2000), attendance (Fiorentine et al., 1999) adherence (Edelman & Chambless, 1995), commitment (DeLeon, 1996), compliance (Wong, Hser & Grella, 2002), trusting relationship (Dixon et al., 1995), and treatment engagement (e.g. Joe et al., 1999). Overall, even though these conceptualizations are largely different, and involve distinct behavioural, cognitive, motivational and interpersonal components, they identify important process indicators that will be examined in the study separately.

### Personality traits

Despite perceived homogeneity related to epiphenomenal attributes of drug use, individuals who misuse substances present quite different problems that vary with developmental status, predisposed tendencies and socio-cultural adjustment. Over the last two decades, there has been significant research on the complex interaction between personality traits and substance dependence. Findings from several longitudinal and prospective studies have shown that behavioral disinhibition related traits and harm avoidance during childhood were associated with early onset of substance use and misuse (Cloniger et al., 1988; Dawe, et al., 2004). Behavioral disinhibition related traits such as impulsivity, novelty and sensation seeking have been consistently associated with substance (Hundt et al., 2008; Prisciandaro et al., 2011) and alcohol misuse (Kimbrel et al., 2007; Loxton et al., 2008). Likewise, strong associations have been reported by studies examining

broad domains of personality with substance and alcohol use initiation (Conway et al., 2003; Malouff et al., 2007), misuse (Dubey et al., 2010; Kornor & Nordik, 2007) and relapse (Bottlender & Soyka 2005; Muller et al., 2008).

The above findings point out that the association of personality traits with drug use initiation, misuse and relapse may represent a reliable indicator of major individual vulnerabilities that hinder treatment engagement. Given that individuals who misuse substances represent a quite heterogeneous group, capturing personality dimensions may assist in establishing an overall personality profile, and identifying particular subgroups that demonstrate differential ratings within substance use population.

### **Conceptual distinction of personality traits and characteristic adaptations**

Research demonstrates that personality traits are heritable, stable over time and relatively efficient in predicting behaviour (Wiggins, 2003). The perception of traits as stable internal dispositions has been empirically supported (Costa & McCrae, 2006). Five Factor Model is the most influential structural model of personality traits that has received extensive empirical support (Krueger & Eaton, 2010; Widiger & Trull, 2007). The FFM forms the base of the higher order structure of personality (Markon et al., 2005) and provides a scientific taxonomy for examining personality within a unique framework, rather than separately investigating indefinite individual traits. According to the FFM, traits are basic tendencies rooted in biology, resistant to environmental influences and inaccessible to observation or introspection (McCrae & Costa, 2008).

Personality traits are usually recognised through their behavioural manifestation; however, manifest behaviours are not traits (Harkness & Lilienfeld, 1997). Numerous difficulties in drawing clear distinctions between traits and observable behaviours cause major discrepancies in personality literature. McCrae and Costa (1995) distinguished basic tendencies from characteristic adaptations, which refer to specific behavioural patterns influenced by dispositional traits and situational variables. Characteristic adaptations are contextually sensitive psychological structures consisted of values, skills, schemas and relationships, which regulate individuals' responses and behaviours according to situational or contextual requirements (Ardelt, 2000). Even though characteristic adaptations facilitate the expression of traits, they do not appear to influence them (McAdams & Palls, 2006). Personality trait profile determines the style of adaptation, while adaptations in turn influence the level of (mal) adjustment to the environment (McCrae & Costa, 2008). Accordingly, variability of personality is thus more related to changes in the adaptation level than to personality traits (Verheul et al., 2008).

In this context, personality traits are distinguished from personality (mal) functioning or adaptive capacities (characteristic adaptations in personality psychology). Adaptive capacities describe the level of (mal) adaptive personality functioning. The term mainly refers to affect and impulse regulation, representation of self and others, capacity for intimate relationships, effective social functioning, identity, skills and coping strategies (Livesley & Jang, 2005; Verheul et al., 2008).

Personality research in treatment effectiveness mainly focuses on traits as stable individual characteristics. This causes drawbacks, since the ability of measures to capture potential changes in personality is being questioned by numerous prominent authors (Livesley & Jang, 2000; Krueger & Eaton, 2010; Samuel et al., 2010; Verheul et al., 2008). Insensitivity to change and failure to capture (mal) adaptive functioning hinder the reliability and validity of personality assessment (Verheul et al., 2008). In order to correspond to these shortcomings, several authors suggest that an effective measurement that captures (mal) adaptive personality functioning should focus on the characteristic adaptations, since they are more malleable; sensitive to change; and have a brief self-report format (McCrae et al., 2000; Verheul et al., 2008)

Acknowledging individuals' vulnerability on a trait level, it appears that dysfunction results from their phenotypic expression in the social context. Thus, individuals' tendency to shape and form social environments may not depend only on basic dispositions but rather on self-efficacy to develop effective adaptive capacities. According to McCrae (2000, p.184), "Traits can be channelled even if they cannot be changed." Thus, environment and socialization agents may play a determining role in constructive sublimation of basic tendencies. Given that individuals who misuse substances often develop maladaptive interpersonal patterns and dysfunctional characteristic adaptations, treatment interventions could facilitate the development of more adaptive ways of responding and coping.

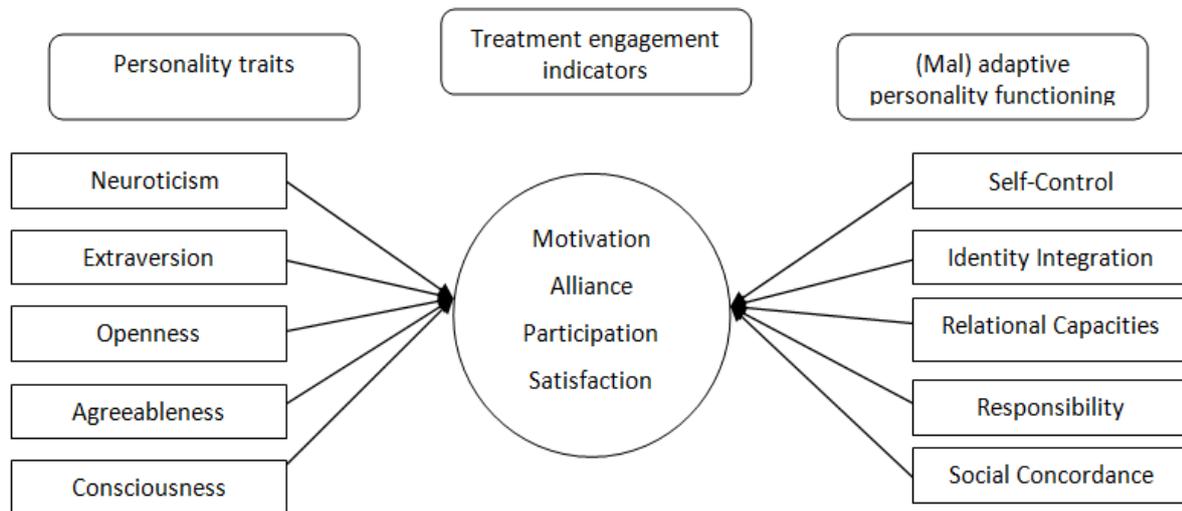
### **Conclusions**

Even though multivariate frameworks of engagement provide evidence of its association with better outcomes, a significant amount of variance of the factors influencing engagement remains unexplained. While client pre-treatment characteristics (demographics, mental health problems, drug use) as factors influencing treatment engagement have been extensively researched, knowledge of the role of clients' personality traits and adaptive capacities is lacking.

A growing body of research provides empirical support of the association of personality traits with substance use initiation, misuse and relapse. Given these significant associations, it is somewhat surprising that to date only limited efforts have been made to identify their role within treatment process. Therefore, identification of individuals' personality dimensions that may trigger dysfunctional behavioural patterns during treatment is of major importance. This would enhance treatment providers' ability to facilitate individuals' adaptation and allow greater flexibility to respond to the diversified clients' needs. Thus, if more defined moderating variables of engagement could be identified, the risk of premature

### Quantitative conceptualization of the present study

1<sup>st</sup> Visual representation: Hypothesized association of broad personality dimension, (mal) adaptive personality functioning and treatment engagement indicators



termination could be addressed by acknowledging individual proneness early on. Under this prism, it appears there is a need to explore whether and how personality dimensions are associated with or likely to influence individuals' treatment responses.

#### **Aims & Conceptualization**

This study aims to add to prior research by quantitatively examining the direct and indirect effects of particular personality dimensions on the set of defined treatment engagement indicators. Specifically, the study investigates broad and facet level traits as well as characteristic adaptations as potential moderators of treatment engagement.

## **2. Study Design**

The process of therapy will be examined in a naturalistic setting. The study will test relationships between key variables, examine whether there are baseline differences between clients with different personality characteristics and explore determinants of treatment engagement using pre- and during process measures. A cross-sectional multi-site design will be utilized to explore the relationship between certain dimensions of clients' personality and engagement in different treatment sites. The quantitative analysis will examine whether personality dimensions predicts treatment engagement indicators. This study will be in accordance with the treatment process model of the Texas Christian University (Simpson, 2004) and conceptualize clients' engagement in a similar manner.

#### **Participants Recruitment**

The treatment centres that will be involved in the study represent major public treatment facilities that provide comprehensive care for alcohol and substance misuse. Participants will be recruited at treatment entry. All individuals who seek treatment from the above mentioned units from the period of summer 2011- autumn 2012 will be considered potential participants. Recruitment will continue until a sample size of 160-200 participants who enter in the inpatient treatment is reached from both treatment types. Recruitment of clinical staff will be performed concurrently with the treatment unit consent, prior to approaching service users. All employed clinical staff working with service users are considered eligible.

#### **Intake Assessment procedure**

Data collection will be performed at several time points. Baseline data will be collected from all participants. Due to the sensitivity of the initial period, clients' pre- screen data will be gathered from treatment services, including scores of the Treatment Demand Indicator (TDI; EMCDDA, 2001) and psychiatrists' notes. The first intake assessment battery will be conducted during the initial contact of the individual with the treatment services and it will include CEST Intake (CESTI;

Simpson, 2001,2005) and SIPP-118 (Verheul et al., 2008), while TPQue (Tsaousis, 2002) will be given at the second appointment. As problem severity measured by CEST-I and characteristic adaptations measured by SIPP-118 are malleable to change during treatment, it is considered appropriate to capture these indicators early on. Due to the high premature drop-out rates and potential undue burden for the individuals, a flexible assessment battery will be utilized in an attempt to correspond to the appropriate balance among ethical and clinical considerations.

### **During treatment assessment procedure**

During-process follow-up will be performed between the 2<sup>nd</sup> and 4<sup>th</sup> week of inpatient treatment, including re-administration of the baseline assessments. It is scheduled to administer TPQue prior to group therapy session, whereas CEST and SIPP-118 will be given right after the group. Finally, staff members in both preparation and inpatient settings from all units will be invited to complete TPQue and ORC. The administration of both questionnaires will take place in a private office in the treatment facilities on a specific day arranged according to staff convenience. The instruments will be administered sequentially. TPQ will be administered individually or in a group format and subsequently staff members will have their privacy to complete ORC.

### **3. Research limitations**

Several limitations of this study should be noted. The non-randomized convenience sample will be drawn from inpatient substance misuse treatments that limit the ability to generalize findings across settings and types of treatment. Although the multi-site design adopted in the study includes units with the largest number of individuals seeking therapy, and provides diversity in geographic representation (Athens & Thessalonica), recruitment method, data collection strategy and sample size may limit representativeness of the study. For instance, individuals who have agreed to participate in the study (self-selection sample), may have different characteristics than those who declined (Vaughn et al., 2002), thus potentially compromising the representation of treatment population and overall conclusions. Likewise, correlative and predictive relationships between personality dimensions and engagement may be site-specific and negatively influence external validity. Moreover, another limitation of the study is that the instruments CEST, ORC and SIPP-118 have not been standardised in the Greek population.

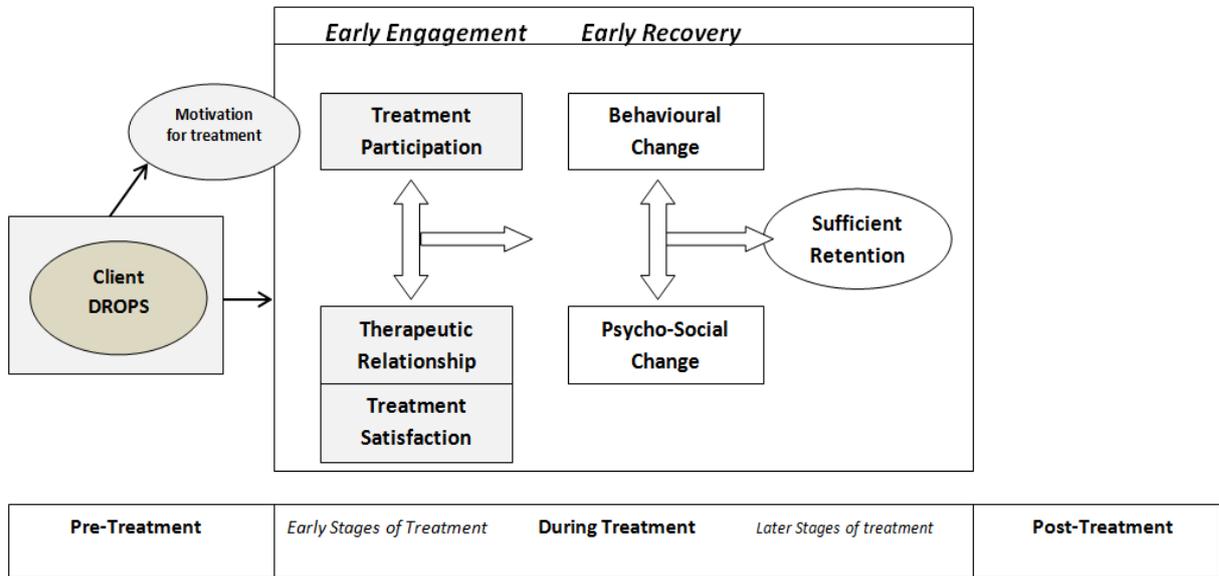
Even though naturalistic design increases external validity by examining engagement as it occurs in treatment setting, internal validity may be compromised since many other variables that cannot be statistically controlled, also interact within treatment process (Meier et al., 2006). Finally, it is suggested that behavioural measures may be more beneficial for capturing personality predispositions than self-reports. However, as the focus of the study is to trace the phenotypic expression of personality traits in relation to engagement indicators, rather than the underlying basic tendencies, it was decided to use self-report measures as they provide resourceful dataset of individuals' own perception regarding their behavioural tendencies.

### **4. Originality & Practical implications**

Despite its multi-factorial nature, clients' engagement represents one of the most robust predictors of favourable outcome in substance misuse treatment. Although many studies addressed different components of engagement, an overall understanding of the role of clients' personality traits and characteristic adaptations in treatment has yet to be formulated. Therefore, one of the main concerns of this study is to fill the gap in the research by integrating previous work on personality and engagement and examine whether individuals' personality mediates or moderates the engagement process. This integration may offer important bridge between research and clinical practice. From an empirical perspective, the findings of this study contribute to the current scientific literature on treatment engagement. Associations among characteristic adaptations, personality traits and engagement would imply a broader conceptual framework in which engagement modifications are viewed in the context of this interaction. Comprehending the role of personality in treatment process may help to explain some of the major inconsistencies found in the literature.

From the clinical perspective, delineating the role of personality dimensions within treatment process could contribute to the identification of individual attrition vulnerabilities. Practically, this would imply that despite personality traits stability, treatment interventions could moderate the degree of dysfunction by targeting partially context-sensitive characteristic adaptations. Thus, conceptual distinction between basic tendencies and adaptive capacities may have particular clinical significance in treatment of substance misuse. Targeted therapeutic interventions tailored to clients' personality profile could therefore raise realistic expectations for the degree of potential change and facilitate sublimation of basic tendencies through more functional characteristic adaptations. This may assist in modifying potential obstacles and enhancing treatment response specificity.

2<sup>nd</sup> Visual representation: Treatment process model



Note: This figure is modified version of Texas Christian University Treatment Process Model (Simpson, 2001). The coloured areas highlight the scope of the present study, including pre-treatment clients' Dimensional Representation Of Problem Severity (DROPS) that represents clients' personality profile based on broad/lower order traits and characteristic adaptations; and treatment engagement indicators selected for this study. Other stages of treatment (e.g. later stages) along with their elements (e.g. behavioural change) are beyond the current scope.

**Table 1.0 Assessments**

Instrument	CEST Intake	CEST	TPQue	SIPP-118	ORC
Author	Simpson, 2001;2005	Simpson, 2001;2005	Tsaousis, 2002	Verheul et al., 2008	Lehman et al., 2002
Constructs measured	Treatment motivation Psychological functioning Social functioning	Treatment Motivation Alliance Participation Satisfaction	Extraversion Neuroticism Openness Consciousness Agreeableness	Self-control Identity integration Relational Capacities Responsibility Social concordance	Staff attributes Organizational Climate
Length in minutes	15	25	30	30	25
Psychometric properties	.86 to .96	.86 to .96	.78 to .89	.69 to .86	.62 to .79
Previously used with SU tx	Yes	Yes	Yes	No	Yes
Greek version available	No	No	Yes	No	No
Hypothesis number	1	2, 3	2, 3	1, 3	3

**References**

1. Ardel, M. (2000). Still stable after all these years? Personality stability theory revisited. *Social Psychology Quarterly*, 63, 392–405.
2. Bottlender, M., & Soyka, M. (2005). Impact of different personality dimensions (NEO Five-Factor Inventory) on the outcome of alcohol-dependent patients 6 and 12 months after treatment. *Psychiatry Res*, 136, 61–67.
3. Brocato, J. & Wagner, E. F. (2008). Predictors of retention in an alternative-to-prison substance abuse treatment program. *Criminal Justice and Behavior*, 35, 99- 119.
4. Cloninger, C. R., Sigvardsson, S. & Bohman, M. (1988). Childhood personality predicts alcohol abuse in young adults. *Alcoholism: Clinical and Experimental Research*, 12, 494–505.
5. Connors, G. J., DiClemente, C. C., Dermen, K. H., Kadden, R., Carroll, K. M., & Frone, M.R. (2000). Predicting the therapeutic alliance in alcoholism treatment. *Journal of Studies on Alcohol*, 61, 139-149.
6. Conway, K. P, Kane, R. J, Ball, S. A, Poling, J. C, Rounsaville, B. J. (2003). Personality, substance of choice, and polysubstance involvement among substance dependent patients. *Drug Alcohol Depend*, 71, 65-75.
7. Costa, P. T., Jr., & McCrae, R. R. (2006). Age changes in personality and their origins: Comment on Roberts, Walton, and Viechtbauer (2006). *Psychological Bulletin*, 132, 28–30.
8. Cournoyer, L. G., Brochu, S., Landry, M., & Bergeron, J. (2007). Therapeutic alliance, patient behavior and drop-out in a drug rehabilitation programme: the moderating effect of clinical subpopulations. *Addiction*, 102, 1960-1970.
9. Darke, S., Campbell, G., & Popple, G. (2011). Retention, early dropout and treatment completion among therapeutic community admissions. *Drug and Alcohol Review*. DOI:10.1111/j.1465-3362.2011.00298.x
10. Dawe, S., Gullo, M. & Loxton, N. (2004). Reward drive and rush impulsiveness as dimensions of impulsivity: Implications for substance misuse. *Addictive Behaviors*, 29, 1389-1405.
11. De Leon, G. (1996). Integrative recovery: A stage paradigm. *Substance Abuse*, 17, 51–63.

12. Dixon, L.B., Krauss, N., Kernan, E., Lehman, A.F., & DeForge, B.R. (1995), Modifying the PACT Model to Serve Homeless Persons With Severe Mental Illness. *Psychiatric Services*, 46(7), 684-688.
13. Dubey, C., Arora, M., Gupta, S., & Kumar, B. (2010). Five Factor Correlates: A Comparison of Substance Abusers and Non-Substance Abusers, *Journal of the Indian Academy of Applied Psychology*, Vol. 36, No.1, 107-114.
14. Edelman, R. E., & Chambless, D. L. (1995). Adherence during sessions and homework in cognitive-behavioral group treatment of social phobia. *BehavResear Ther*; 33(5), 573-7.
15. Fiorentine, R., Nakashima, J., & Anglin, M. D. (1999). Client engagement in drug treatment. *Journal of Substance Abuse Treatment*, 17, 199-206.
16. Graff, F. S., Morgan, T. J., Epstein, E. E., McCrady, B. S., Cook, S. M., Jensen, N. K., & Kelly, S. (2009). Engagement and Retention in Outpatient Alcoholism Treatment for Women, *The American Journal on Addictions*, 18:277-288.
17. Harkness, A. R., Lilienfeld, S. O. (1997). *Psychological Assessment*, Vol. 9, No. 4, 349-560.
18. Hser, Y., Evans, E., Huang, D., & Anglin, D. M. (2004). Relationship between drug treatment services, retention, and outcomes. *Psychiatric Services*, 55, 767-774.
19. Hundt, N. E., Kimbrel, N. A., Mitchell, J. T., & Nelson-Gray, R. O. (2008). High BAS, but not low BIS, predicts externalizing symptoms in adults. *Personality and Individual Differences*, 44, 563-573.
20. Joe, G. W., Simpson, D. D. & Broome, K. M. (1999). Retention and patient engagement models for different treatment modalities in DATOS. *Drug and Alcohol Dependence*, 57: 113-125.
21. Jones, A., Donmall, M., Millar, T., Moody, A., Weston, S., Anderson, T., Gittins, M., Abeywardana, V., & D'Souza, J. (2009). The Drug Treatment Outcomes Research Study (DTORS): Final outcomes report. *Research Report 24*.
22. Kimbrel, N. A., Nelson-Gray, R. O., & Mitchell, J. T. (2007). Reinforcement sensitivity and maternal style as predictors of psychopathology. *Personality and Individual Differences*, 42, 1139-1149.
23. Kornor, H. & Nordik, H. (2007). Five factor model personality traits in opioid dependence. *BMC Psychiatry*, 7:37.
24. Krueger, R. F., & Eaton, N. R. (2010). Personality Traits and the Classification of Mental Disorders: Toward a More Complete Integration in DSM-5 and an Empirical Model of Psychopathology. *Personality Disorders: Theory, Research, and Treatment*, Vol.1, No.2, 97-118.
25. Livesley, W. J., & Jang, K. L. (2000). Toward an empirically based classification of personality disorder. *Journal of Personality Disorders*, 14, 137-151.
26. Loxton, N. J., Nguyen, D., Casey, L., & Dawe, S. (2008). Reward drive, rash impulsivity and punishment sensitivity in problem gamblers. *Personality and Individual Differences*, 45, 167-173.
27. Malouff, J., Thorsteinsson, E., Rooke, S., Schutte, N. (2007). Alcohol involvement and the Five-Factor model of personality: a meta-analysis. *Journal of Drug Education*, 37:277-294.
28. Markon, K., Krueger, R. F., & Watson, D. (2005). Delineating the structure of normal and abnormal personality: An integrative hierarchical approach. *Journal of Personality and Social Psychology*, 88, 139-157.
29. Marlatt, G. A., & Donovan, D. M. (2005). *Relapse prevention: Maintenance strategies in the treatment of addictive behaviors*. New York: Guilford Press.
30. McAdams, D. P., & Pals, J. L. (2006). A new Big Five: Fundamental principles for an integrative science of personality. *American Psychologist*, 61, 204-217.
31. McAdams, D. P., & Pals, J. L. (2006). A new Big Five: Fundamental principles for an integrative science of personality. *American Psychologist*, 61, 204-217.
32. McCrae, R.R., Costa, P. T., Jr., Ostendorf, F., Angleitner, A., Hrebrickova, M., Avia, M. D., Sanz, J., Sanchez-Bernardos, M. L., Kusdil, M.E., Woodfield, R., Saunders, P.R., & Smith, P.B. (2000). Nature over nurture: Temperament, personality, and life span development. *Journal of Personality and Social Psychology*, 78, 173-186.
33. Meier, P. S. & Barrowclough, C. (2009). Mental health problems - are they or are they not a risk factor for dropout from drug treatment? A critical review of the evidence. *Drugs Prevention and Policy*, 16, 7-38.
34. Meier, P. S., Donmall, M., Barrowclough, C., McElduff, P. & Heller, R. F. (2006). Predicting the early therapeutic alliance in the treatment of drug misuse. *Addiction*, 100: 500-511.
35. Mulder, R. T., Frampton, C. M. A., Peka, H., Hampton, G., Marsters, T. (2009). Predictors of 3-month retention in a drug treatment therapeutic community. *Drug Alcohol Rev*, 28:366-71
36. Muller, S. E., Weijers, H. G., Boning, J., & Wiesbeck, G. A. (2008). Personality traits predict outcome in alcohol dependent patients. *Neuropsychobiology*, 57, 159-164.
37. Prisciandaro, J. J., McRae-Clark, A. L., Moran-Santa Maria, M. M., Hartwella, K. J., & Brady, K. T. (2011). Psychoticism and neuroticism predict cocaine dependence and future cocaine use via different mechanisms, *Drug and Alcohol Dependence*, in press.
38. Samuel, D. B., Simms, L. J., Clark, L. A., Livesley, W. J., & Widiger, T. A. (2010). An Item Response Theory Integration of Normal and Abnormal Personality Scales. *Personality Disorders: Theory, Research, and Treatment*, Vol.1, No.1, 5-21.
39. Simpson, D. D. (2004). A conceptual framework for drug treatment process and outcomes. *Journal of Substance Abuse Treatment*, 27, 99-121.
40. Simpson, D. D., & Dansereau, D. F. (2008). Assessing organizational functioning as a step toward innovation. *NIDA Science & Practice Perspectives*.
41. Simpson, D. D., Joe, G. W., Brown, B. S. (1997). Treatment retention and follow-up outcomes in the Drug Abuse Treatment Outcome Study (DATOS). *Psychology of Addictive Behaviors*, 11:294-307.

42. Simpson, D. D. (2001; 2005). TCU Treatment Assessment Forms. Fort Worth: Texas Christian University, Institute of Behavioral Research.
43. Tsaousis, I. (2002). The traits personality questionnaire (TPQue). In B. De Raad & M. Perugini (Eds.), *Big five assessment* (pp.237–260). Göttingen: Hogrefe & Huber.
44. Vaughn, T., Sarrazin, M. V., Saleh, S. S., Huber, D. L., & Hall, J. A. (2002). Participation and retention in drug abuse treatment services research. *Journal of Substance Abuse Treatment*, 23, 387-397.
45. Verheul, R., Andrea, H., Berghout, C.C., Dolan, C., Busschbach, J. V., van der Kroft, P. J. A., Bateman, A. W., & Fonagy, P. (2008). Severity Indices of Personality Problems (SIPP-118): Development, Factor Structure, Reliability, and Validity. *Psychological Assessment*, Vol.20, No.1, 23–34.
46. Widiger, T. A., & Trull T. J. (2007). Plate tectonics in the classification of personality disorder: Shifting to a dimensional model. *American Psychologist*;62:71–83.
47. Wiggins, J. S. (2003). *Paradigms of personality assessment*. New York: Guilford Press
48. Wong, M. M., Hser, Y. I., & Grella, C. E. (2002). Compliance among adolescents during drug treatment. *Journal of Child and Adolescent Substance Abuse*, Vol 12 (2), p.13-31.



*Governmental and non-governmental action against  
organized crime and drug trafficking in Serbia*

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***Abstract***

**Research aim** Globalization, political and economic transition in South East Europe, coupled with widespread corruption and weak governance facilitated empowerment of organized crime groups (Michaletos, 2009; Trifunovic, 2008). Studies indicate that Serbia represents major transit country within the ‘Balkan route’, the main transnational drug trafficking network used to smuggle drugs into European states (Michaletos, 2006; UNODC, 2008). The aim of this study is to investigate the actions undertaken by the Government of Serbia in combating organized crime and drug trafficking, as well as the potential obstacles of these actions related to the role of legitimate actors in criminal networks operating in the region. The study will primarily examine whether the ‘Balkan route’ in practice consisted of a number of smaller networks or it is a part of a larger international network. This will be used to determine if there are important nodes/cliques identified in Serbia as having a major role in the Balkan route network and what is the strength of the potential links among Serbian legitimate and non-legitimate actors who appear to take part in this network. Concurrently, it will be investigated whether Serbian government developed similar network (law enforcement, judicial) as a response to organized crime groups. This will indicate if those institutions (or individuals associated with them) are the same ones that have been identified in the

applied analysis as key players in criminal network under investigation.

**Methodology/Approach** Modern researchers share a common standpoint that organized crime groups function as social networks cellular in structure (Ayling, 2009; Morselli et al., 2007; Shelley, 2002; von Lampe, 2006; Williams, 2001). Along with this new line of inquiry, there is a traditionally apparent presence of legitimate actors in a variety of criminal contexts, indicating that state actors often closely cooperate with these groups. This implies that organized crime groups are not stable hierarchical entities but rather flexible groups whose interconnectedness with the system offers resiliency to law enforcement investigations (Morselli, 2009). Therefore, as this study focuses on the role of legitimate actors and institutions in illicit network, study design will be based on criminal network analysis. This method will allow the exploration of a potential symbiotic relationship among actors from upper-and under worlds by indicating specific nodes (individuals or institutions) that may represent key players of organized crime network.

Specifically, elite interviewing will be used to obtain data from governmental officials and NGO representatives. Interviews will be semi-structured, formulated on the basis of the main research questions and official data from the institutions and international law enforcement agencies. Additionally, a quantitative instrument International Narcotics Control Board Questionnaire will provide technical data regarding the implementation of the ratified conventions related to drug trafficking. The sample will include representatives of the main governmental institutions in the field of combating organized crime and drug trafficking.

**Research limitations** There are certain constraints regarding the scheduled methodological frame of the study. Primarily, the research area of organized crime is *per se* difficult to explore, as there is a lack of reliable data and sufficient reluctance from the official institutions to share valuable information. Moreover, the research is designed as a case study, which limits information crosschecking, as there is a lack of evidence and increased potential of selective reporting, distortion and generalization. Finally, there are certain challenges inherent to the criminal network analysis such as information overload, high search complexity and profound reliance on the field knowledge.

**Originality/Value of paper** The proposed research is expected to indicate certain political and social difficulties in Serbia, which hinder effective state-to-state cooperation in combating organized crime. The application of criminal network analysis may offer important data regarding existing structural holes and assist in identification of legitimate actors who have high potential to provide smooth functioning of illicit networks. This may put forward the importance of redesigning the system on the basis of international cooperation and lessons learned.

**Key words** organized crime, drug trafficking, Balkan route, criminal network analysis

**Introduction** Globalization, political and economic transition in South East Europe (SEE), coupled with widespread corruption and weak governance facilitated empowerment of organized crime groups (Michaletos, 2009; Trifunovic, 2008). Transnational crime networks appear to be major beneficiaries from globalization and the use of IT in international financial exchange, since these processes allow free transfer of individuals, goods and finances (Shelley, 2002; Williams, 2001). Furthermore, research in many developing or transition countries supports that widespread corruption associated with weak governance and state institutions, facilitates proliferation of organized crime and reinforces illicit activities of transnational criminal organizations (Michaletos, 2009; Trifunovic, 2008; Vasic, 2010).

Globally, one of the main sources of income of transnational criminal networks refers to illicit drug trafficking. This term implies the supply of illegal drugs on the black market by criminal drug dealers in response to consumer demand, often controlled by organized crime syndicates (Stojanovic, 2003). The concept of the “*Balkan drugs route*” refers to the main path by which narcotics and specifically heroine are smuggled into the European countries. It is described as a network of contrabands, corrupted public officials and warlords that make sure the heroine produced in Afghanistan is smoothly transferred into Europe (Michaletos, 2007). Balkan route involves several SEE states, which play significant roles in the distribution of heroin, cocaine and other drugs, including Albania, Southern Bulgaria, FYROM, Serbia, Montenegro, Bosnia and Herzegovina and Croatia (Trifunovic, 2007). Reports indicate that there are basically two or three main routes of transporting heroin towards the EU states, including southern and central path (Afghanistan, Iran, Turkey, Bulgaria, Greece, former Yugoslavian republics, towards

Italy), and northern part through Hungary towards Austria/ Germany (International Narcotics Control Strategy Report, 2010; UNODC, 2008). Serbia has been recognized as a source, transit, and destination country, while Kosovo represents the epicentre of all drug deals along the Balkan route (International Narcotics Control Strategy Report, 2010; Michaletos, 2007).

According to the recent EUROPOL report, the Balkans route is a well known route used by organized criminal groups (Europol, 2009). It appears that the geographical location in relation to the EU as the final destination, trade liberalization, and relatively low risk of law enforcement activities make this path pretty convenient (EU Organized Crime Threat Assessment – OCTA, 2009). The route has been linked with several border points in Montenegro and Albania, the port of Constance in Romania, as well as the channel Rhine-Main-Danube as the main entry points into the EU (OCTA, 2009).

Considering the advantage of transnational crime to invoke the international dimension of apparently localized issues, the ‘Balkan route’ may have significant impact on European societies and international affairs. In line with this, the role of Serbia in the ‘Balkan route’ suggests a researchable topic on a social activity with significant implications in terms of economics, politics, transnational drug trafficking, international development and European integration.

### **Research background**

The concept of Balkan route sets the stage for explaining the key points of the research:

- The contribution of the Balkan route to drug trafficking is a transnational crime problem.
- The focus on Serbia could assist in mapping the Balkan route, and understanding a vital link in international drug traffic.
- European integration is affected by drug trafficking in the region

- There is a need to re-examine the role of the EU, national governments, and NGOs in economic and social development.

Reports indicate that drug trafficking is flourishing in a part of European continent referred to as “the Balkans” (Michaletos, 2006). Underground illegal networks in SEE represent one of the main obstacles in regards to further development and European integration (Hajdinjak, 2002). The majority of these states passed through a decade of armed conflicts and massive political transformations, which created social confusion and vulnerability to crime. Serbian geographic position, as a crossroad between East and West, as well as the fact that it lies on the main path of the “Balkan route” contributed during the 90s to the development of organized crime. A combination of unconsolidated democracy, unstable politics, affected institutional capacity, and high centralization of power in ruling elites resulted in severe social tensions and “empowerment” of black economy. In addition, Kosovo, a modern de facto international protectorate, has become the unquestionable narcotics capital of Europe, as a result of lack of law coupled with the society reluctant to pursue organized crime, creating in this way a “black hole” in the centre of the Balkans (Chossudovsky, 2001; Graham, 2000; Wolfe, 2007).

Research indicates that organized crime groups in the region form an integral part of the worldwide “Crime Syndicates” and control most of the international narcotics trade (Trifunovic, 2007; UNODC, 2008). They are motivated by profit as a common goal rather than national interests, which allows close cooperation among diverse individuals regardless of their ethnicity, political or religious beliefs. Additionally, during the 90s, the secret services have developed close ties with illegal groups throughout the region. This “pact” between the secret services, corrupted political actors and organized crime has

established strong grounds for the development of various criminal networks with a considerable social impact. Moreover, the utilised routes of smuggling cigarettes, gas, oil, cars and other products throughout the region and neighbourhood countries, established a strong traffic structure unaffected by state actions.

Drug trafficking is considered the most important means of income for the SEE organized crime groups. According to the UNODC, the profit chain involves several levels: a) as large amounts of heroin and cocaine pass through the region, local organized crime groups and corrupt officials are able to gain immense profits, b) Serbia has low levels of drug use overall, which implies that the flow is conducted by highly organized groups aiming to gain the highest profit, rather than by the simple network of couriers and c) Balkan route is used to further spread illicit drug trade in the EU (World Drug Report, 2007).

Nowadays, Serbia is caught between reforms of legal framework, intelligence services and judicial system. The Government of Serbia took several measures to improve its capacity to combat drug trafficking and organized crime groups acting in the region. In 2009, Serbia adopted new legislation and law enforcement initiatives that tightened enforcement against narcotics, corruption, and organized crime, which included legislation authorizing asset seizure, plea-bargaining, wiretapping and the use of cooperating witnesses (Ministry of Justice Report, 2010). Serbia's drug laws are adequate, but the judicial system is weak and implementation is problematic. The official data on convictions imply significant impact of corruption and non-effective weak legal judicial system to sentencing for drug law violations (Ministry of Justice, 2008; 2010). Thus, there is a need for an improved strategic coordination among law enforcement and

judiciary. Nevertheless, lack of financial resources and insufficient interest of the civil society represent major obstacles for strengthening mutual cooperation. Overcoming these obstacles is crucially important in drug trafficking suppression, as civil society may represent one of the key “support pillars” in fighting organized crime.

Overall, Balkan drug trafficking networks erode democracy, inhibit development of stable societies and may also succeed in subverting law enforcement throughout Western Europe (Trifunovic, 2007; UNODC, 2008). Coupled with the global financial crisis, there is a possibility that these groups may increase their power and influence on the local governments and institutions. Taking into account the diversity of the SEE states in regards to their past, political and legal frameworks, it is of great importance to analyze potential actions that may decrease the impact of transnational crime groups on good governance and long-term effort of these states to approach the EU.

**Research aim** The purpose of this study is to provide an account for the actions undertaken by the Government of Serbia and NGOs in combating organized crime and drug trafficking, as well as potential obstacles of these actions related to the role of legitimate actors in criminal networks operating in the region. Based on a variety of sources, the study investigates the extent and nature of drug trafficking in Serbia, and the role of legitimate and illegitimate ‘actors’ involved. Specifically, it explores the role of state institutions in suppressing drug trafficking and examines whether there are certain individual roles in these institutions that may have the ability to hinder these efforts. Finally, detected sources of illicit drugs and routes they follow will be described, indicating significant impact of the Balkan route on international affairs and informal global economy.

**Research questions** Within this framework, the main research questions include the following:

- What is the role of the Balkan route as an international grid of illicit drug traffic?
- What is the role of Serbian actors who appear to contribute to the Balkan route?
- What are the potential links among Serbian legal and illegal actors in the context of drug trafficking and what is the strength of these links?
- What are the implications for policy related to international cooperation in this matter and international economic development?

**Social/criminal network analysis** Modern conceptualizations support that traditional structure of organized crime groups such as the top-down hierarchy of mafia, has been replaced by modern business structures that operate as loosely-organized networks of cells (Finckenauer, 2005; Morseli, 2009; Paoli & Fijanoau, 2004; Shelley, 2005). This type of organization provides greater efficiency, organizational flexibility and hinders law enforcement efforts to identify and position group members (Shelley & Picarelli, 2005). Moreover, transnational criminal groups lack specific ideology, and often use political corruption as a tool for their ends, infiltrating in this way into the political system (Morselli & Giguere, 2006; Shelley, 2005; Stojanovic, 2003). This is of concern since critical social determinants of organized crime refer to the quality, independence and integrity of the institutions safeguarding the rule of law, including police services and the judiciary.

Given the evidence that modern criminal organizations operate within network structures (Garay & Villaveces, 2009; Morseli, 2009; Shelley, 2002; von Lampe, 2006; Williams, 2001), social network appear as most appropriate approach for the analysis. It delineates concepts that facilitate the analysis of criminal organizations and offers

numerous techniques for the determination of the role of legitimate actors in criminal networks i.e. mapping, modelling. Furthermore, this approach fits well with a growing literature on business organization networks, which implies similar organizational mode of transnational trade organizations and criminal networks (Williams, 2001). Finally, it contains significant theoretical and practical compatibility with criminal network analysis.

The effectiveness of social network analysis as a method for analyzing drug trafficking groups refers to evidence-based understanding of the network structure, provision of richer data on numerous individual interactions and more precise role positioning (Morseli, 2009; Klerks, 2001; Peterson, 1994; Shelley, 2005; Sparrow, 1991). Social network analysis is being widely used for the analysis of the 'dark networks' characterised by covertness, illegality, and certain threat to a wider society, such as criminal and terrorist networks. This approach indicates that a particular social context influences the behaviour and 'performance' of actors in such systems (Allie et al., 2008; Garay Salamanca, Salcedo-Albarán, & de León-Beltrán, 2010; Klerks, 2001).

The origins of social network analysis are traced in sociology, social psychology and anthropology (Latour, 1987; 1988; Williams, 2001). Essentially, this approach allows the analysis of translational crime as a basic issue of human organisation. It brings into consideration the concepts of actor-network theory, as well as the sociology of Gabriel Tarde and Bruno Latour to the study of organised crime. That is, a specific social activity (drug trafficking) is explored on the basis of profound implications for how societies function, what holds them together or drives them apart (Latour, 2003; Tarde, 1969). Finally, it explores what 'criminal activities' tell us about how people organise

themselves in conditions of rapid social transformations or government inefficiency. Commonly, different variations of the social network analysis adopt the notion that human behaviour or social processes can be explained only through mutual interaction rather than through categorical properties and norms of individual actors (Klerks, 2001). That is, individuals are expressed in socially relevant ways only through their relationships with others (Klerks, 2003) and human behaviour is thus examined only in terms of individuals' functioning within structured social relations.

Social network analysis explores the associations between interdependent individuals (Garay Salamanca, Salcedo-Albarán, & de León-Beltrán, 2010). This linking of individuals to one another in social and geographic space appears particularly useful in location or region-related investigations. Several concepts proposed in SNA may be utilized to facilitate the analysis i.e. 'nodes', 'cliques', 'cells', 'egos', 'edges' etc. (Hanneman & Riddle, 2005; Wasserman & Faust, 1994). The advantage of utilizing this approach lies in its capacity to enable understanding of different processes of recruiting legitimate actors within organized crime networks and examine the real extent of infiltration by criminal actors into illicit/legal activities. In addition, it may point out alternative ways of transforming law enforcement operations and increase flexibility of organized crime control (Klerks, 2003; Van Dijk, 2007).

Fluid network structure provides drug trafficking groups with numerous advantages including adaptability, wide-scale recruitment, resilience, as well as capacity for quick learning and innovation. Moreover, networks have greater capacity to exploit new modes of communication and international collaboration than state actors whose activities are based on hierarchical models (Williams, 2001). Elusive quality of networks

comes from their ability to increase market efficiency, coexist within hierarchical structures or without them, be pervasive and modelled in different ways (Williams, 2001). Furthermore, networks' resilience refers to the system's capacity to absorb disturbance and reorganize while undergoing change so to preserve fundamentally the same structure, functions and identity (Walker et al., 2004).

Illicit networks are "sovereignty free" (Kenney, 2007) and thus less accountable and more adaptable to changes. In line with this, a number of scientists and security analysts support that "it takes a network to fight a net-work" (Walker et al., 2004). Likewise, the resilience perspective suggests that for combating illicit networks, both strategic and operational pathways are necessary (Ayling, 2009). This would imply intelligence gathering based on a more vigilant consideration of potential unintended links, as well as operational activities that would target network's structure vulnerabilities in order to reduce resilience. However, the inherent secrecy, covertness and security issues may hinder the efficiency of communication and information gathering. Likewise, certain networks' advantages may concurrently become their limitations, i.e. increased recruitment based on informal ties increases potential impact, but may also reduce mutual trust among the actors, hinder internal security and intensify conflicts. This is associated with the lack of formal dispute resolution mechanisms that often leads to violence, creating a need for an "efficiency/security tradeoffs" (Morselli, Giguere, & Petit, 2007). Finally, the fact that illicit networks operate both "without the state" and "against the state" (Paoli, 2002) has also been put forward as an important vulnerability. In line with this, it is of concern to identify important nodes i.e. brokers, suppliers, legitimate actors as interest protectors, etc. Considering that drug trafficking reduces the gap between the

‘upperworld’ and ‘underworld’ (Van Duyne, 2003), it is particularly interesting provide an overall profile of the actors involved.

**Methodology** Modern researchers share a common standpoint that drug trafficking groups function as social networks cellular in structure (Ayling, 2009; Morselli et al., 2007; Shelley, 2002; von Lampe, 2006; Williams, 2001). Along with this new line of inquiry, there is a traditionally apparent presence of legitimate actors in a variety of criminal contexts, indicating that state actors often closely cooperate with these groups. Significant emphasis on political corruption as an essential modus operandi of drug traffic groups worldwide has been empirically supported (Shelley, 2005; Morselli, 2006). This implies that organized crime groups are not stable hierarchical entities but rather flexible groups whose interconnectedness with the system offers resiliency to law enforcement investigations (Morselli, 2009). Therefore, as this study focuses on the role of legitimate actors and institutions in illicit network, study design will be based on criminal network analysis. This method will allow the exploration of a potential symbiotic relationship among actors from upper-and under worlds by indicating specific nodes (individuals or institutions) that may represent key players of organized crime network.

The study will primarily examine whether the ‘Balkan route’ is in practice consisted of a number of smaller networks. This will be used to determine if there are important nodes/cliques of this network identified in Serbia and what is the strength of the potential links among Serbian legitimate and non-legitimate actors who appear to take part in this network. Concurrently, it will be investigated whether Serbian government developed similar network (law enforcement, judicial) as a response to organized crime

groups. This will indicate if those institutions (or individuals associated with them) are the same ones that have been identified in the applied analysis as key players in criminal network under investigation. Actions undertaken by the non-governmental sector will be evaluated in a similar manner.

The study will draw upon a variety of official sources, including official and unpublished court/police statistics; trial reports from Special Court on Organized Crime and Belgrade District Court; data on the outcomes of judicial processes involving alleged or convicted actors; annual NGO reports on drug trade, organized crime and money laundering; important journal and newspapers articles by prominent authors. The sample will include government officials from the main institutions in the field of combating organized crime and drug trafficking, as well as relevant NGO representatives. Elite interviewing will be used to for data collection. Eligible participants will be preselected on the basis of their position, role, jurisdiction or field experience. It is expected that some participants may indicate other important 'actors' who have not been previously identified (snowball effect). Interviews will be semi-structured, formulated on the basis of research questions and official data from the institutions and international law enforcement agencies. Additionally, a quantitative instrument International Narcotics Control Board Questionnaire will provide technical data regarding the implementation of the ratified conventions related to drug trafficking.

Interviews will be conducted in Serbian language and translation/back translation will be performed. All the participants will be contacted by phone and email in order to arrange meetings and inform them about the study. Meetings will be conducted individually, after obtaining signed consent forms. Participants will be informed that the

interviews may be audio-taped and that any identifiable data will be altered and protected in order to ensure confidentiality.

**Research limitations** Certain constraints refer primarily to the research area of organized crime which is *per se* difficult to explore, as there is a lack of reliable data and sufficient reluctance from the official institutions to share valuable information.

Moreover, the research is designed as a case study, which limits information crosschecking, as there is a lack of evidence and increased potential of selective reporting, distortion and generalization. Finally, there are certain challenges inherent to the criminal network analysis such as information overload, high search complexity and profound reliance on the field knowledge. Finally, available information refers only to those cases that have been traced or reported to the relevant law enforcement agencies.

**Originality/Value of paper** The proposed research is expected to indicate certain political and social difficulties in Serbia, which hinder effective state-to-state cooperation in combating drug trafficking. The application of criminal network analysis may offer important data regarding existing structural holes and assist in identification of legitimate actors who have high potential to provide smooth functioning of illicit networks. This may put forward the importance of redesigning the system on the basis of international cooperation and lessons learned. The results of the study may also inform a better strategy for international development. Finally, the study will build upon the debates regarding the sources of social cohesion and social change, as well as notions of the EU policy makers about the problem of drug trafficking in terms of economic development in Serbia.

## *References*

- Aili, E., Malm, A. E., Kinney, J., & Pollard, N. R. (2008). Social Network and Distance Correlates of Criminal Associates Involved in Illicit Drug Production, *Security Journal*, 21, 77- 94.
- Ayling, J. (2009). Resilience in Criminal Networks, Regulatory Institutions Network, ANU, Centre for Excellence in Policing and Security.
- Buscaglia, E. & Van Dijk, J. (2003). Controlling organized crime and corruption in the public sector. In: Forum on crime and society, Vol III, no. 1 & 2. *United Nations Publication*.
- Chossudovsky, M. (2001). Kosovo ‘freedom fighters’ financed by organized crime. *Ottawa University Press*.
- EU Organized Crime Threat Assessment – OCTA, (2009). Retrieved from [www.europol.europa.eu](http://www.europol.europa.eu).
- Europol (2009). European Union Organised Crime Report. Luxembourg: Office for the Official Publications of the European Communities.
- Finckenauer, J.O. (2005). Problems of Definition: What is Organized Crime? *Trends in Organized Crime*, 8(3), 63-83.
- Fijnaut, C., Bovenkerk, F., Bruinsma, G., & van de Bunt, H. (1998). *Organized Crime in the Netherlands*. The Hague: Kluwer Law International.
- Garay Salamanca, L.J., Salcedo-Albarán, E., & de León-Beltrán, I. (2010). *Illicit Networks Reconfiguring States*, Social Network Analysis of Colombian and Mexican Cases. Bogotá, Colombia, Metodo Foundation.
- Garay, J. & Villaveces, S. (2009). Criminal network analysis and democracy buildings, Illicit Networks Workshop, Centre for transnational Crime

- Prevention, University of Wollongong.
- Graham, P. (2000). Drug wars: Kosovo's new battle. *The Centre for Peace in the Balkans*.
- Hanneman, R.A., & Riddle, M. (2005). Introduction to social network methods. Riverside, CA: University of California, Riverside  
<http://faculty.ucr.edu/~hanneman/>.
- Hajdinjak, M. (2002). Smuggling in Southeast Europe: The Yugoslav wars and the development of regional criminal networks in the Balkans. *Centre for the Study of Democracy*, p.5-38.
- Hesse, H. (1973). *Mafia and Mafiosi: the Structure of Power*, Farnborough, Saxon House.
- International Narcotics Control Strategy Report (2008). United States Department of State Bureau for International Narcotics and Law Enforcement Affairs. Volume I Drug and Chemical Control.
- International Narcotics Control Strategy Report (2010) United States Department of State Bureau for International Narcotics and Law Enforcement Affairs. Volume I Drug and Chemical Control.
- Kenney, M. (2007). The Architecture of Drug Trafficking: Network Forms of organisation in the Colombian Cocaine Trade, *Global Crime*, 8 (3), 233-259.
- Klerks, P. (2001). The network paradigm applied to criminal organizations: Theoretical nitpicking or a relevant doctrine for investigators? *Recent developments in the Netherlands. Connections*, 24, 53–65.
- Latour, B. (1987). *Science in Action: How to follow scientists and engineers through society*, Harvard University Press, Cambridge Mass.
- Latour, B. (1988). A Relativist Account of Einstein's Relativity, *Social Studies of Science*, 18, p. 3-44.

- Latour, B. (2003). What if we talked politics a little, *Contemporary Political Theory*, 2, 143–164.
- Michaletos, I. (2006). An outlook of organized crime in Southern Balkans. *RIEAS, Balkan studies*, [www.rieas.gr](http://www.rieas.gr).
- Michaletos, I. (2007). The Balkans: the soft underbelly of the European narcotics market? *RIEAS, Balkan studies*, [www.rieas.gr](http://www.rieas.gr).
- Michaletos, I. (2008). The new international of organized crime in the Balkans. RIEAS, Balkan studies [www.rieas.gr](http://www.rieas.gr).
- Michaletos, I. (2008). Kosovo's affairs & the "Narco-statehold". RIEAS, Balkan studies [www.rieas.gr](http://www.rieas.gr).
- Michaletos, I. (2009). The new international of organized crime in the Balkans. International Analyst Network. [www.analyst-network.com](http://www.analyst-network.com)
- Ministry of Justice of the Republic of Serbia (2010). Annual Report, *Official Gazette*, Dec. 2010.
- Ministry of Interior of the Republic of Serbia (2009). Annual Report, *Official Gazette*, Dec. 2009
- Morselli, C. & Giguere, C. (2006). Legitimate strengths in criminal networks. *Crime, Law & Social Change*, 45, 185–200.
- Morselli, C. (2009). Paths for Criminal Network Disruption, Criminal Investigations Workshop Australian National University Centre in Policing and Security Canberra.
- Morselli, C., Giguere, C., & Petit, K., (2007). The efficiency/security trade-off in criminal networks, *Social Networks*, 29, 143-153.
- Paoli, L. (2002). The paradoxes of organized crime. *Crime, Law & Social Change*, 37: 51–97.

Paoli, L. & Fijnaut, C. (2004). *General Introduction*. In: C. Fijnaut and L. Paoli (eds), 1-19. *Phantoms of Organised Crime, Corruption and Terrorism*, Nijmegen: Wolf Legal Publishers.

Peterson, M. (1994). *Applications in Criminal Analysis: A Sourcebook*. Westport: Greenwood Press.

Shelley, L. I. & Picarelli, J. T. (2002). Methods Not Motives: Implications of the Convergence of International Organized Crime and Terrorism. *Police Practice and Research*, 3(4): 305-318.

Shelley, L. I. (2002). The Nexus of Organized International Criminals and Terrorism. *International Annals of Criminology*, 1-6.

Shelley, L. I. (2005). The Unholy Trinity: Transnational Crime, Corruption, and Terrorism. *Brown Journal of World Affairs*, 11(2): 101-111.

Sparrow, M.K. (1991). The application of network analysis to criminal intelligence: An assessment of the prospects. *Soc. Netw.* 13, 251-274.

Stojanović, Z. (2003). *Criminal law – general part*. Legal Administration Library, Belgrade

Tarde, G. (1969), *On Communication and Social Influence*. Selected Papers. Edited by Terry N. Clark, Chicago, University of Chicago Press.

Trifunovic, D. (2007). Special Report: Terrorism and Organized Crime in South- Eastern Europe: The Case of Bosnia-Herzegovina, Sanzrak, and Kosovo. *Defence & Foreign Affairs/International Strategic Studies Association*.

UN Office on Drugs and Crime (2008). *Crime and its impact on the Balkans and affected countries*. Vienna International Centre. [www.unodc.com](http://www.unodc.com)

Van Dijk, J. (2007). Mafia markers: assessing organized crime and its impact upon societies. *Trends Organ Crim*, 10:39-56.

- Van Duyne, P. C. (2003). Organizing cigarette smuggling and policy making, ending up in smoke, *Crime, Law and Social Change*, 39, 285-317.
- Vasic, M. (2009). No one can fight alone against organized crime: Interview with the Minister of Interior of the Republic of Serbia. *Vreme Magazine*.
- Von Lampe, K. (2006). The cigarette black market in Germany and in the United Kingdom. *Journal of Financial Crime*, 13, 235-54.
- Walker, B., Holling, C.S., Carpenter, S.R., & Kinzig, A. (2004). Resilience, adaptability and transformability in social–ecological systems. *Ecology and Society* 9(2): 5. Retrieved from <http://www.ecologyandsociety.org/vol9/iss2/art5/>
- Wasserman, S. & Faust, K. (1994). *Social Network Analysis: Methods and Applications*. Cambridge University Press, Cambridge, UK.
- Williams, P (2001) ‘Transnational Organised Crime’ in Arquila, J and Ronfeldt, D (eds.) *Networks and Netwars: The future of terror, crime and militancy*. [www.rand.org](http://www.rand.org)
- Williams, P. (2001). Organizing Transnational Crime: Networks, Markets and Hierarchies”, In Williams P. and Vlassis D., *Combating Transnational Organised Crime. Concepts, Activities and Responses*. London, Frank Cass.
- Wolfe, T. (2007) Ethnic Minorities in Kosovo Still Lack Freedom of Movement, *World Politics Review Exclusive*.
- World Drug Report (2007) UN Office on Drugs and Crime, United Nations Publications No. E.08.XI.1978-92-1-148229-4
- Xenakis, S. (2001). The challenge of organized crime to state sovereignty in the Balkans: A historical approach. Oxford University, p.22-31

## ABSTRACT

### THEME

**“The Acquisition of the English Vocabulary and the impact of computer technology on the English language learners during the teaching process”**

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**Aim of research:** The idea of this research paper came as a result of the evolution of the teaching techniques in the classroom and the technological changes, concretely, the use of computer which definitely has a great impact upon the teaching process. New teaching methods have nowadays been introduced and the reaction of students toward them is positive and at the same time stimulates motivation. This paper also suggests the teachers of the English language to try to take into consideration their students’ needs stated in the conducted survey and provide them with as many diverse ways and topics as possible.

**Methodology:** The method that will be mainly used is that of description and interviewing. The relevant bibliography will be studied as well. Finally there will be conducted a questionnaire whose results will be shown in the paper.

**Findings:** There are many different technologies, but the biggest and most recent is the very influential computer. Both in and out of the classroom computers impact the education of people around the world. Almost all students use the Internet for different purposes and according to them it plays a crucial role in their educational and creational lives.

The stratification and enrichment of vocabulary, at first should be conceived as a process, therefore, its implementation should come naturally as a primary task, but so programmed.

According to the students`, no doubt that special role in enriching the vocabulary of students plays the English language teachers` themselves. In the process of the enrichment of students vocabulary, plays an important role the work with dictionaries.

**Value of paper:** This paper is based on a survey conducted with high school and university students in Vlore, Albania. The results of the survey were quite interesting and really reflected students’ contemporary problems of the integration of Albanians on the conditions of current global development.

**Paper Type:** Academic Research Paper

**Key words:** Vocabulary, computer technology, the English language, teaching methods.

## **Introduction**

The fast development of the society today, and the great increase of information, assisted by diverse means of transmission and communication, have made it possible for teaching English to change from that of previous decades. Previously, the teacher was the source of information, while today he or she is a leader and organizer of teaching, which leads students to seek information independently, and with his assistance, to resolve any problem, however complicated to be. Today, the focus of teaching is the student. The teacher adjusts the interests and needs, in accordance with the aims of teaching.

While in the past the focus was laid on grammatical description, and procedures of drilling, modern methods promote real communication in the classroom, help students understand spoken and written language, and participate in conversations. The primary goal of modern methodology is the lowering of students' anxiety. David Wilkins<sup>1</sup> summed up the importance of vocabulary for language learning: "Without grammar very little can be conveyed, without vocabulary nothing can be conveyed."

## **Teaching Vocabulary to English Language Learners**

Language is learned more easily when a student feels relaxed. Creating a respectful and friendly environment would promote students' cooperation with each other and would facilitate their asking questions and answering. Thus, the teaching process would become enjoyable and interesting at the same time, and the students on the other hand would be eager to know more and learn more.

Secondly, active teaching techniques should be used. This means asking questions, involving students, and solving problems together. Relying too much on individual work, limits the opportunities for oral practice, which is essential to learn not just common words, but all vocabulary. Working in groups or pairs, doing hands-on lessons give students broad access to learn and use vocabulary.

Thirdly, during the teaching process the teacher should point out meanings of words and phrases so that everybody comprehends. They should use quick visual examples when discussing lessons, quickly pointing to an object or a picture when they introduce a word. They can also illustrate the meaning of a word with a gesture — shivering to show: it's cold; or using facial expressions to show emotions. Visuals and gestures are a quick and very effective way to draw attention to meanings of common words and ensure that every student understands what you are talking about.

However, apart from the meanings of words, the teacher should also focus on pronunciation, spelling, and cross- language relationships of words. Review word roots, prefixes, and suffixes, and word families that show parts of speech. Special attention should be paid to words with multiple meanings. Furthermore, students should be encouraged to create their own vocabulary lists. This empowers them to increase their vocabulary on their own and become active in identifying unfamiliar words. Strategies like this are critical for reading comprehension.

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<sup>1</sup>Vocabuild. 29 June 2010 (*Wilkins* 1972: 111; in *Milton* 2008: 333)

We can mention some ways of teaching vocabulary in the classroom such as using a word wall which presents vocabulary, verbs, and phrases so that students see the words placed in order within the target language alphabet, acting out/pantomime through which language learners can be encouraged to participate orally in classroom activities without feeling the pressure of having to perform, drawing pictures, role-play game which is a very important element of oral language activities, creating habits of interlocution and stratification of vocabulary, working in groups etc.

### **The creation of a linguistic environment**

The student first needs to develop an appropriate language, first to achieve the common social functions that start naturally:-greetings, congratulations and welcome, the wording of questions, the expression of evaluation of something, expressions of sympathies or display areas of interests, etc. Through the figure of the teacher, the student is directed how to use language in a proper way. And so from one class to another, the teacher should create more structured and formal contexts, to promote the appropriate use of language by students. These contexts may include: debates, presentations, text summaries, interviews, etc.

### **The creation of a context for spoken language**

As an interactive with the students, the teacher is one who creates the overall context of oral language activities. This can be accomplished through two methods: Firstly, ensuring the desired quality and promoting varied in the form of ideas and themes. Secondly, creating and facilitating organizational structures in which the conversation takes place. This is done depending on the nature and role of the activity, but it should be based on the different characteristics of students, class or group.

### **The Impact of Computer during the Teaching Process**

Technology is ever changing the ways in which we learn. There are many different technologies, but the biggest and most recent is the very influential computer. Both in and out of the classroom computers impact the education of people around the world. Using PowerPoint lessons in the class, proved to be a useful tool for displaying learning objectives, presenting information to students, giving directions and incorporating multimedia into a lesson.

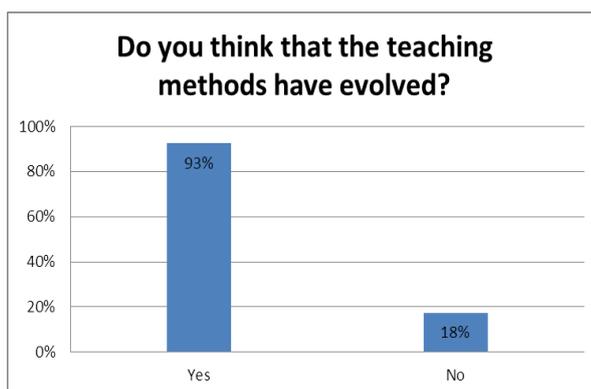
### **SURVEY**

The survey was conducted with university and high school students in Vlore. The participants were 20 students (females and males of ages 16 to 29) of the University "Pavaresia" in Vlore and 20 other high school students of "Ali Demi".

### **DATA ANALYSES**

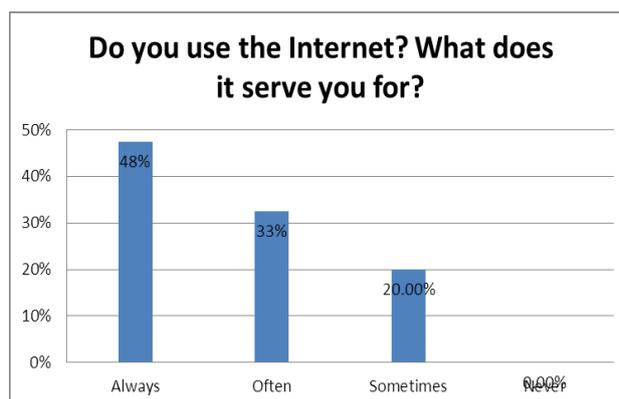
92.5% agreed that the teaching methods have evolved while only 7.5% did not agree. The students said that the teaching methods had changed in comparison to the previous years since the lesson is being taught through the use of different technologies such as the computer and thus the lesson had become more interesting and motivating. Some others added that this advance on teaching methods had come as a result of the cultural and social development. Many methods had been borrowed

from Western Europe and thus, the teaching process had changed a lot. However, a great influence had also had the improvement of the teaching conditions incorporating in the classroom computers for the students, using PowerPoint lessons, cassettes, CDs, videos, on-line dictionaries. This implies that the students are more eager and motivated at the same time to learn more and not be bored. In addition, the participation of students in the class has increased since the students are not only in the role of the listener now. While the other students, who were against, said they had not changed and that the teacher was the focus, a book they had to study and a blackboard where to write. This shows that there is space for more improvement and there is still dissatisfaction on the part of the students.<sup>2</sup>



Regarding the question whether the technology of computer serves as a facilitator while learning the English language, all the students agreed. According to them, the lesson became more attractive, interesting, the students were motivated more. What they liked more were the videos on different topics, live dialogues, power point lessons which are illustrated with pictures. A student mentioned an article he had read and he said that a regular user of the internet learned every day 7 new words in English compared to another one who did not use the Internet at all.<sup>3</sup>

Regarding the question whether the students use the Internet and for what it mostly serves them, the results are as follows<sup>4</sup>:



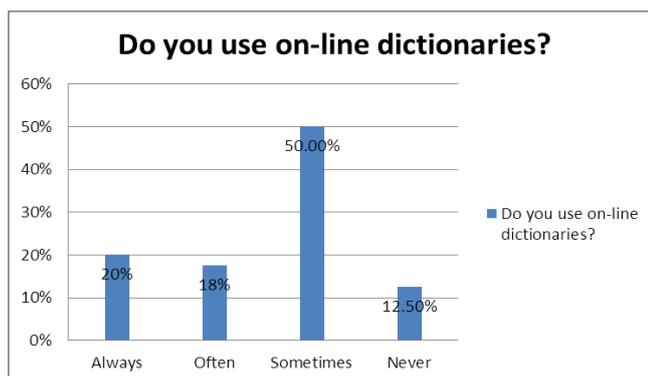
<sup>2</sup> Annex. Refer to the first question of the questionnaire.

<sup>3</sup> Annex. Refer to the second question of the questionnaire.

<sup>4</sup> Annex. Refer to the third question of the questionnaire.

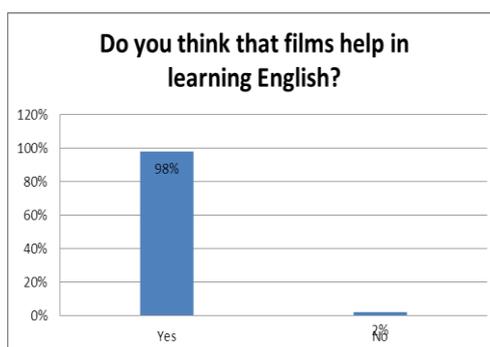
The results showed that the Internet had become part of students' lives since it helped them to gather information on various fields such as cultural, political, educational, and scientific, to keep in touch even with the remotest friends, to test themselves on different cultural and social topics, or even test their level in English. A student wrote: *"I consider the internet as the only window where I can find anything. It serves me to find different kind of information but even to have lessons on foreign languages. However, in my free time I can also entertain myself on the Internet by playing music, chatting, doing different quizzes etc."*

The students were also interviewed about on-line dictionaries, and we have the following results<sup>5</sup>:



This implies that on-line dictionaries are a more practical way in finding the meanings of new words, synonyms, phrases etc. They save time and at the same time they provide the students with examples which help them better grasp the meaning and remember them through the sentences.

97.5% of the students agreed that films helped a lot in the acquisition of the English language since they enriched their vocabulary, helped them to get used to the accent, learn phrases used in daily life. It can be said that while watching a film, the focus is totally on that and in this way words and phrases are learned easier and can be remembered. As a result it is shown that films are a fruitful way of learning the English language. Only 2.5% did not consider films an important way in the acquisition of the English language<sup>6</sup>.



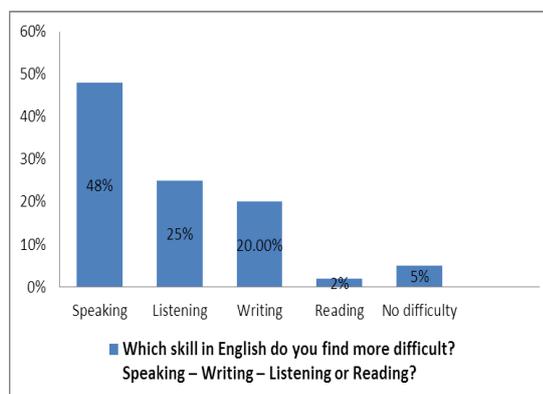
<sup>5</sup> Annex. Refer to the fourth question of the questionnaire.

<sup>6</sup> Annex. Refer to the fifth question of the questionnaire.

37.5% of students said that to learn a foreign language well you had to attend the courses and also to use audio-visual tools as they helped in the acquisition of accent and intonation. 50% of students felt that the courses were an efficient way to acquire a foreign language since the student had the opportunity to clarify any unclear point with the teacher who would be present and that the grammar of a language could not be taught through audio-visual means but only through the courses. 12.5% of students answered positively to audio-visual means as they were practical, faster at learning the language and you were given the opportunity to hear a conversation whenever you needed and to better acquire it<sup>7</sup>.



Referring to the other issue about the skills which the students find more difficult that is speaking, writing, listening or reading; 47.5% had difficulties in speaking, 2.5% in reading, 20% in writing, 25% in listening and only 5% of the students had no difficulties. Based on the results that I got, it is obvious that the most difficult skill for students is the speaking one since the English language is rich in words, phrases, expressions and in different meanings. Dialogues, conversations, debates in English should be promoted and increased in the classroom so that for the students to have a greater opportunity to get used to communicating in English.



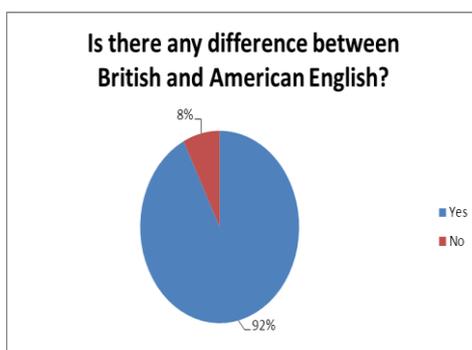
Listening is the second skill on terms of difficulty because of the accent, pronunciation, speed and even dialects. The students found difficult the listening exercises and they recommended that having the text on a monitor while listening to it would be great since this would help them acquire the skill better. This is one of the reasons why many students listen to the songs on the internet and at the same time having the lyrics there.

<sup>7</sup> Refer to the sixth question of the questionnaire.

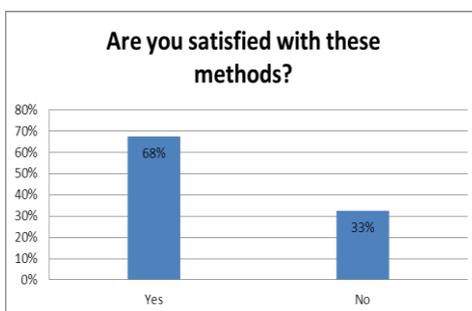
On the other hand the difficulties in writing could be overcome with reading and writing as many texts as possible<sup>8</sup>.

Concerning the difference that English used in England has and that in the U.S. 93% said that there were differences since they knew people living in the respective countries and even while studying the language. The difference lied in their accent, vocabulary such as sweet in the US and candy in England, in writing; it is like speaking a language with a different dialect<sup>9</sup>.

Only 8% of students said that there are no differences between them.



According to the students, the most frequent methods and ways the teachers used in giving vocabulary were the word lists, playing CDs and practising the new words, giving their translations from English to English, some let the students find and translate the new words with the use of dictionaries and others just told them to have a look at the end of the book where they could find the meanings themselves. 67.5 % of the students were satisfied with the methods teachers used in giving new vocabulary, while 32.5% were not satisfied at all since they considered them old and unfruitful<sup>10</sup>.



According to the students the greatest problems of the teaching and acquisition of the English language is the lack in some schools of the audio-visual means, the low professional level of teachers, and the greatest focus on grammar exercises while the other skills are left a little apart which does not help in developing communication. Furthermore, the non-effective methods, not good textbooks, few teaching hours, the wrong accent of the teacher and noisy and non-attentive students do not create a

<sup>8</sup> Refer to the seventh question of the questionnaire.

<sup>9</sup> Refer to the eighth question of the questionnaire.

<sup>10</sup> Refer to the ninth question of the questionnaire.

good and friendly environment for the students to be motivated and to have productive results during the learning of the English language<sup>11</sup>.

97.5% of students had been able to communicate with foreigners and what had impressed them was the simplicity, kindness, the way of communicating, habits and their mentality. One student noted that when foreigners come to Albania the first word they learn is “thank you” and that they are more open and direct than us. 75% of students have encountered difficulties in communication, simply the fact that placing oneself in front of such a situation with two different cultures poses difficulties. Others had difficulty in understanding some words, their accent, and also the pace of speech in order to catch and understand the conversation properly. From the interviewing of students, only one of them had never spoken to foreigners<sup>12</sup>.

## **CONCLUSIONS**

In conclusion it can be said that vocabulary is an important part of the English teaching process. It is supposed to be a very effective communicative device as it carries the highest level of importance within peoples’ verbal interaction. The technological changes have had an impact on the progress of the teaching methods and techniques. So, the computer has become an important part of our lives and as a result even during the teaching process.

The survey which consisted of eleven questions intended to gather information and evaluate the experience of students in terms of foreign language acquisition and the difficulties they encounter during the learning process. These data give us the opportunity to better understand the link between learning English and the impact the use of computer has on it. At the same time this paper becomes concrete and suggests teachers of the English language that technology and specifically the computer has become an important part of the teaching and learning process.

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<sup>11</sup> Refer to the tenth question of the questionnaire.

<sup>12</sup> Refer to the twelfth question of the questionnaire.

## REFERENCES

Foreign Language – Social Subjects and Human Rights, published by the Albanian Center for Human Rights, Tirane 2002

Methodology of Teaching published by Bardhyl Musai, Tirane 2003

Nation, I. S. P. (1990). Teaching & Learning Vocabulary. Boston, Heinle & Heinle Publishers.

Nation, I. S. P. (2001). Learning Vocabulary in Another Language Cambridge, New York, Cambridge University Press.

Teaching and interactive learning, , Bardhyl Musai, Tirane 2005

Thornbury, Scott: How to teach Vocabulary, Longman, 2002

Wallace Michael: Practical Language Teaching, Teaching Vocabulary,

**ANNEX**

**QUESTIONNAIRE**

**Gender** \_\_\_\_\_

**Age** \_\_\_\_\_

**1. Do you think that the teaching methods have evolved? Yes. No. Why?**

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**2. Does the computer technology serve as a facilitator (e.g. lectures on power point videos, conversations among people, on-line exercises) in order to learn the English language?**

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**3. Do you use the Internet? What does it serve you for?**

Often                      Sometimes                      Always                      Never

**4. Do you use on-line dictionaries?**

Often                      Sometimes                      Always                      Never

**5. Do you think that films help in learning English?**

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**6. How do we better acquire a foreign language, through courses or audiovisual means?**

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**7. Which skill in English do you find more difficult?**

**Speaking – Writing – Listening or Reading? What ways can you think of overcoming these difficulties?**

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**8. Is there any difference between British and American English?**

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**9. Which are the ways the teachers use to teach vocabulary in the English language? Are you satisfied with these methods? Yes. No. Why?**

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**10. Which are the problems of teaching and of acquiring the English language?**

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**11. Have you ever talked to foreigners? What impressed you during the communication? Did you have difficulties in the perception of something?**

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