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for every opinion now accepted was once  
eccentric.”

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## Review of Applied Socio-Economic Research

issue no.1/2011

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- Structural trends for European Research Area
- Overeducation
- Pedagogic innovation
- Online education
- Inequality

- Risk patterns for financial institutions
- Sustainable development
- The „quality services“ vector
- Tourism strategy
- Eco-tourism
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*Editor in chief*  
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*Editors:*  
*Cristina Barna*  
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## **FOREWORD**

*„Do not fear to be eccentric in opinion, for every opinion now accepted was once eccentric.“*

Bertrand Russell

Pro Global Science Association is pleased to announce the launch of the first issue of the Review of Socio-Economic Research. The review publishes high-quality, peer-reviewed papers in the rapidly growing fields of research of economics, social sciences and humanities.

This first issue of our review is under the sign of the researchers' commitment to the welfare of society. We have provided for the researchers access to a daring forum of discussions and reputed along with young researchers have answered to our call equally enthusiastically. Looking to the future, the papers cover a varied range of fields, from education issues to economics and tourism, in an attempt of finding solutions through a thorough analysis of the past and present. Issues such as the structural trends faced nowadays by European Research Area (ERA), overeducation, pedagogic innovation, online education, inequality, the 'quality services' vector, tourism strategy and eco-tourism and last but not least, food culture are dealt with in detail from a fresh and bold perspective. Anyone reading the papers will see the resolve and determination of the authors to follow the mission statement of our forum of discussions! The diversity of issues approached is the very diversity of real life working in perfect harmony.

It is to be expected that such a challenging spirit will grow and result in a sense of collaboration between intellectuals to share knowledge and consolidate research expertise, because the future belongs to those who are able to bring researchers together to attack and solve the major problems of society.

*Editors*

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## **Structural trends for European Research Area: cross-cutting themes and changing structures for research**

*Emilian M. Dobrescu*<sup>1</sup>

*Cristina Barna*<sup>2</sup>

### **Abstract**

*The paper provides an overview of the structural trends faced nowadays by European Research Area (ERA). These trends reflect not only societal developments, but also the changing structures of research itself. Beginning from the general context of understanding the concept of ERA as one of the core elements of the renewed Lisbon Strategy for Growth and Jobs, our paper is based on the conclusions and recommendations made by Metris Report 2009 – ‘Emerging trends in Socio-economic Sciences and Humanities in Europe’. In this sense, we analyze the new complex issues approached by EU researchers and scientists, with focus on innovation issue, concluding with the challenges for ERA success and Metris Report recommendations.*

**Key-words:** scientific research, interdisciplinary research, European Research Area, Lisbon Strategy for Growth and Jobs, globalization

**JEL Classification:** I20, I23

The European Research Area (ERA) is one of the core elements of the renewed Lisbon Strategy for Growth and Jobs. In the context of a changing and dynamic world characterized by the accelerating globalization of research and technology and the emergence of new scientific and technological powers – notably China and India – the European Research Area is more than ever a key for the success of the European knowledge society. *The ERA concept combines: a European ‘internal market’ for research, where researchers, technology and knowledge freely circulate; effective European-level coordination of national and regional research activities, programmes and policies; and initiatives implemented and funded at the European level.* It is obvious that some progress has been made since the concept was endorsed at the Lisbon European Council in 2000, ERA becoming at present a key reference for research policy in Europe. However, there is still much further to go to build ERA, particularly to overcome the fragmentation of research activities, programmes and policies across Europe.

### **• General context: rethinking the Europe role as a global actor**

The ongoing world stand requires a far-reaching reconsideration of what role Europe should be playing. Many global actors showcase an economic growth, underpinned by not only an extensible and manifold industrial base but also by a striking development of the most advanced sectors of information economics, including science and technology. As a consequence, the advantages and individuality of Europe, as well as new forms of exchange and partnership have need of well-grounded analyses. We hereby take under scrutiny the conclusions and recommendations made by the Metris Report 2009 – compiled by a group of European experts on what are the main challenges that the European Union (EU) has to face during all these years of crisis and economic recovery, of change in the value systems and knowledge on nations and people.

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<sup>1</sup> Romanian Academy, Scientific Secretary of the Economic Sciences Section; Professor Ph D, Spiru Haret University, Romania, Splaiul Independentei, 313, District 6, Bucharest, [dobrescu@acad.ro](mailto:dobrescu@acad.ro)

<sup>2</sup> Ph D in Economics, Vice-President PGSA and Editor REASER, Scientific expert ADAF, [cristina\\_barna1412@yahoo.com](mailto:cristina_barna1412@yahoo.com)

The survey that Gallup International, along with the European Council on Foreign Relations (ECFR), has conducted worldwide highlights a deeper and deeper individuals support for a multi-polar world, where one out of three people (35%) wishes to see the EU influence on the rise. In the ECFR Report, the survey writers, Ivan Krastev –Director of the Center for Liberal Strategies in Sofia and one of the founding members of ECFR- and Mark Leonard – Executive Director of ECFR, were stating that ‘EU has a unique status among the four world great powers (i.e. besides the EU, the United States of America, China and Russia), as no one has the intention to counterpose its growth.’ On the other hand, the Voice of the People 2007 issue, the largest survey in the world, involving 57,000 people in 52 countries, points out that the world citizens are in favor of a larger role of EU globally; it is only the British who act equivocally towards this matter – the Great Britain registers the lowest score of 32% respondents pro growth and 24% against it. By contrast, 65% of the French wish to see the EU more involved in the world, along with 69% Greek, 56% Italians and Spaniards. Just as EU neighbors, Albania, Republic of Moldova and Kosovo had the highest scores for a better EU presence worldwide, namely 76%, 63% and 55%. Also, the survey shows predominantly negative opinions towards the Union in Turkey and Croatia – two candidate states pending accession – where 45% and 36% think that the EU should be more reserved, compared to 9% and 26% who believe otherwise.

All in all, the USA influence is best seen on the African continent (37%) and Russia (26%). In spite of this, the positive attitude in Russia is not whatsoever shared in the USA, where 34% want Russia exert less effect. Only half of the respondents in Canada (54%) and Latin America (53%) make a stand against the increase of the American influence worldwide. A percentage of 51% of the respondents in Western Europe (from countries in the EU before the 2004 enlargement) fight back the USA rise – in the Central and Eastern Europe, only 37% share of the population have this view. Similarly, the survey evidences that as for the United States, the countries that express a desire to see this country move upward are Albania (71%), Kosovo (61%), Panama (45%) and the United States (45%). To the opposite end, there are Bosnia-Hertzevina (80%), Luxembourg (74%), Greece (73%), Serbia (72%) and Finland (71%).

- **New complex issues and cross-cutting themes for EU researchers and scientists**

Krastev and Leonard consider that the increase of EU influence is favored for by many of the former European colonies, thus proving that the colonial heritage of the EU member states is gradually fading. The EU place and behavior within the multilateral systems are phenomena still unclear for common citizens – therefore, this is the reason why *the EU only attracts the interest of the scientists, researchers in complex issues*, such as:

**1. Energy.** EU takes into consideration, to a large extent, the use of the reusable energies for environment protection, and also for strategic rationale, in the sense of diminishing its dependency on the energy-exporting countries.

The approach that defines the measures meant to solve the environment and energy issues better inserted into the social and cultural practices has become a more important and imperative topic within the EU member states’ educational practices.

**2. One Europe or more?** The integration process of the European countries into the EU reflects an invitation to reconsidering the political space and concepts, more generally compartmentalized. Europe may be perceived as an issue still building, which is never prescribed. This topic highlights the research upon the contested historic identities and research programs that bind Europe to ‘the others’, i.e. the post-colonial studies, the study of the imperial and regional structures in History, Sociology and Political Sciences.

**3. The European identity – a global issue.** Culture and laws are essential components of how Europe relates itself to the rest of the world. Beyond the political science and international relations, the analysis of the

cultural formation, the elites in Europe, the ideas circulation or the legislative sociology may significantly contribute to our understanding of the European integration.

*4. Europe memory and memories.* The euro-centrism criticism is a crucial trend, with positive corollaries for the European foreign affairs. The importance of memory as an object and channel for the European policies (for instance, the post-colonial memory, the memory of communism in the Eastern Europe, Holocaust) will allow a better apprehension of how the disputed-over memories behave within the ongoing social and cultural debates.

*5. Europe as information and knowledge economy.* The building of the European Research Area and the integration of the national systems of education have equipped Europe with an attractive and diversified infrastructure of knowledge and information. Such new models of interaction with other countries are different than the old ones of the imperial imposition of the metropolitan education systems and, yet, they trigger new hierarchies. The social, cultural and economic consequences of this phenomenon are still under scrutiny.

*6. Europe in the global cultural market.* A quite significant trend in the social and humanitarian research is the movement at the level of global markets for cultural goods and the change in the Europe place as producer and consumer of cultural artifacts. How the cultural legitimacy is built upon specific social and economic structures is a trend from literary theory to the sociology of culture.

*7. Welfare.* The welfare expansion and permanent progress is one of the main post-war achievements in Europe. The social model surely helps shape a European identity and contributes to the individuality of Europe in the world. The welfare condition functions serve to reaching the European social and economic objectives and, to a lesser extent, the environment goals. Thus, the role of the social welfare, a push to the increase in Europe, is a crucial role of research.

*8. Migration.* Besides the traditional research on the migration waves at the macro-level, there is a real need to also support the research at the micro-level, riveted on the perspectives of the migrants, on the customized experiences and cultural practices. The global economy, cultural and political changes call for a greater attention, paid to the intra-European migration, as well as the transnational one, to its political and legal regulations, the chosen migration and the economically- or politically-motivated migration.

*9. Innovation.* The mechanisms that link technology to the economic growth, particularly the role of the knowledge institutions, are a top item on the research agenda in the field of the social and human sciences. For a certain number of fields, the inter-discipline research designs the institutional and territorial dimension of creativity and innovation.

*10. The post-carbon society.* In a context of uncertainty in terms of long-term changes in the environment and the social and economic systems, the studies on human adaptation to new relations with environment are a crucial topic and yet still not enough enquired into. The market mechanisms, their regulations and the participatory approach to the natural resources management have been and still are research priorities. The strategic and environment dimensions of the energy alternative sources, as well as the social implications have become noteworthy research directions.

*11. The crisis of value and evaluation.* De-industrialization and the emergence of the post-industrial economy have triggered a crisis of tools – i.e. the labor time, measuring the added value. Moreover, remuneration and the evaluation systems seem to be not effectual within a more autonomous, flexible and intensive in knowledge labor. New theories of value and the ways to understand productivity and creativity bring hope to the research area.

*12. Space, landscape and virtuality.* The concepts of space, territory and landscape (political, social, urban, natural, etc.) are redefined as an interlock between the physical space and the political and cultural one. For the political theory, one may notice the sustained efforts to redefine space as a dynamic category, beyond the limited horizon of the traditional territories. Knowledge organization and structure of the scientific processes include the latest concept of spatiality and its definition becomes a major paradigm for the social and human sciences. The virtual perspectives of communication redefine, thus, our sense of space. Human habitat and landscape are dramatically given another definition and the new symbolical and physical geographies need to explore them.

*13. Time and memory.* For the last decades, the memory research has been playing an essential role, both in the human, social, natural sciences and also in the creative arts, more often in an inter-discipline manner. Memory is the History site, of building the individual and collective identity, of knowledge, communication, etc. The study of the discursive framework, of memorization and of memory strategies take full advantage of the inter-discipline cooperation.

*14. Re-technologization.* The last years have witnessed how the technologization of the social and human sciences, both at the level of methodological innovation (for instance, the computer-based geographic system) and also in content (i.e. human – computer interaction) has led to great inter-connection for the social, human and other sciences, as well as to re-conceptualization of the environment scientific research in terms of network structures and new interfaces between human and non-human. Such changes will spark the formulation of some pivotal questions about the role of quantification and description in the inter-discipline research; data capturing and its applications; the legitimacy and regulation for the production information in the highly-technologized contexts, with a strong technological content, as well as in their social, economic and cultural entailments.

*15. Iconosphere.* The contemporary societies may be described by an upward flow of images, while the digital technologies conduce to the revolutionization of production and images consumption. The iconosphere defines a new ecology of the visual, which postulates new theoretical and empirical research methods.

*16. Governing and regulation.* Due to the current climate of financial instability and economic recession, the question to what extent the state should interfere into economy has been asked. The debates upon the proper tools of regulating the national and global economy surely open new research horizons.

*17. The future of democracy in a globalized world.* The issue of democracy must not be left aside, both at the national level and in the EU, as it has a considerable impact upon the citizenship topic and the place of Europe worldwide.

For example, regarding subject 9 - **innovation issue**, we would like to point out that sustainable growth and job creation in the European Union increasingly depends on excellence and innovation as the main drivers of European competitiveness. In order to compete in the global economy marked by economic

and financial crisis, enterprises must become more inventive, react better to consumer needs and preferences and address challenges by innovating more. Recognizing this fact, the European Union declared 2009 – The Year of Creativity and Innovation. Creativity and innovation can move society forwards toward prosperity.

Having a detailed look at the most important aspects of European Union research and innovation investment and performance presented in *Key Figures 2005* report which offers an overview of the progress achieved towards the 3% objective, it is obviously the need for Europe to strengthen its research and innovation capacities. The Key Figures 2005 shows the worrying trend of R&D investment in Europe: the growth rate of R&D intensity has been declining since 2000 and is close to zero, the growth of R&D investment as a % of GDP has been slowing down, from 2002 to 2003, only an increase of 0.2% was achieved. Europe devotes a much lower share of its wealth to R&D, compared to the US, China and Japan: 1.93% of GDP in the EU in 2003, as compared to 2.59% in the US and 3.15% in Japan. As for China, which registers a lower R&D intensity than Europe (1.31%), but with a 10% increase between 1997 and 2002, it will reach by 2010 the same R&D intensity as Europe (about 2.2%). One of the reasons of this worrying trend is business funding of R&D, and one of the most worrying conclusions of the Key Figures 2005 is that Europe is becoming a less attractive place for research activities.

In this context, the European Union developed new initiatives in favor of the support of innovation like Lead Market Initiative for Europe, Europe Innova, Pro Inno Europe or Enterprise Europe Network, which is part of the Competitiveness and Innovation Framework Programme. For example, *Lead Market Initiative for Europe* is aiming to unlock the market potential for innovative goods and services by lifting obstacles hindering innovation in a first batch of six important markets: eHealth, protective textiles, sustainable construction, recycling, bio-based products and renewable energies. These markets are highly innovative, respond to customers' needs, have a strong technological and industrial base in Europe and depend more than other markets on the creation of favorable framework conditions through public policy actions. *Pro Inno Europe* is aiming to become the focal point for innovation policy analysis, learning and development in Europe, with the view to learning from the best and contributing to the development of new and better innovation. Pro Inno Europe supports *The Network of Innovating Regions in Europe* which provides a platform for the development of 'Regional Innovation Strategies', the exchange of best practices for regional support to innovation and it develops methodologies to benchmark regional strategies. From projects funded by *Europe Innova* we can mention as remarkable examples The European Eco-innovation Platform with the aim to accelerate the take-up of eco-innovative solutions in Europe or Knowledge Intensive Services Innovation Platform with the aim to accelerate the take-up of services innovations in Europe, but there are more.

- **Conclusions: facing the challenges for ERA**

Unfortunately, the statistics related to the public research funds are still to be worked on, whereas the information on the funds volume and priorities from the private donors are almost non-existent. METRIS Report 2009 recommends the European Commission develop abilities of monitoring in order to get realistic statistics about the public and private funds for scientific research. These last years, great attention has been paid to the collective work steered to projects. The focus should go onto the permanent need of *inter-discipline studies* and *studies performed by individual researchers*. Such research methods have proven themselves quite productive and innovative, mainly for the humanistic sciences, a reason for further encouragement. Also, the institutions for advanced studies, in addition to the mechanism of granting funds to the European Council of Research, are useful tools in supporting the individual researchers.

The inter-disciplinary approach has the advantage of relying on a team of researchers. This type of research has a strong potential of coming close to the complexity of the real world questions and their solutions. The integrative approaches are confined to the distance between the discipline paradigms and the

lack of inter-discipline training in many prioritized areas for the EU funds. The challenges found in the profound inter-disciplinarity should be perceived as prerequisites for the development of the entire potential of the social and human sciences. It is more imperative than ever to have a closer connection among the funds agencies, which are usually preoccupied with a single area of the scientific reality (natural sciences, social and human sciences, arts, etc.). To provide the dissemination of research outcomes in the social sciences and humanities is to be a high priority in building the European Research Area, in a context where the latest business models capitalizes, more and more, on the immaterial values and digital technologies. The present research bodies should be more involved into the dissemination of such results and the evaluation of the scholar research.

The assessment conducted upon the European scientific research has clearly shown the added value of knowledge derived from the regular monitorization of the European societies at a comparative scale, among various nations. The information digitization converts the role of archives and traditional libraries for research and asks for the need to rethink their role. The rapid growth of the database requires proper computer abilities, both in infrastructure and in training. The digital projects of the universities, libraries and research institutions hold a huge potential for the latest research approaches and for the social and cultural impact. Too bad that such projects happen within the national borders of a country and there is a meaningful but under-explored potential for their europeanization.

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## **What can existing overeducation tell us about the situation in supply and demand of tertiary educated?<sup>3,4</sup>**

Miroslav ŠTEFÁNIK<sup>5</sup>

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### **Abstract**

*The submitted article deals with the problem of overeducation. It offers a brief overview of existing explanations and introduces a method of overeducation measurement based on internationally used classifications ISCO and ISCED. It also brings some evidence on overeducation measured by this method, using data mostly from the National level census and European Community Household Panel. The analysis is focused on the overeducation of workers with tertiary degrees, which becomes especially interesting in the light of tertiary education expansion. The question is, in what sense does overeducation refer to the supply-demand relations on the labour market? International comparisons of overeducation in European countries offer some answers.*

**Keywords:** overeducation, labour supply, labour demand, schooling

**JEL Classification:** I21, I22, J24

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## **Introduction**

The concept of knowledge society is an important part of priorities and strategies on the national, as well as European level. In line with this effort, most European countries have been witnessing the expansion of higher education. Despite this movement, tertiary educated workers are enjoying benefits from education, which are higher than ever before. Gains from education, measured as educational wage gap or unemployment rate, increased in most developed countries.

Even in the situation of increasing gains from education, recent strong increase in numbers of graduates from tertiary education draws attention to the problem of overeducation. Overeducation would become a problem for the society in case, if wider groups of workers would be constrained to work in positions, which require lower level of education than the workers actually possess. Education in general can be seen as an investment, which in case of overeducation is not utilised properly. The question, whether overeducation is a problem for the society, is not only about the sensibility to this kind of underutilisation, but also about the character of existing overeducation.

The central question of this article is: What can existing overeducation tell us about the situation in supply and demand of tertiary educated? This question emerged in the context of knowledge society transition idea. One important pillar of

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<sup>3</sup> This article is based on work carried out during a visit to European Centre for Analysis in the Social Science (ECASS) at the Institute for Social and Economic Research, University of Essex supported by the Access to Research Infrastructures action under the EU Improving Human Potential Programme.

<sup>4</sup> Práca je súčasťou projektu VEGA *Súčasný trendy vo svetovej ekonomike a znalostná ekonomika*, číslo 2/0206/9

<sup>5</sup> The author is a researcher at the Institute of Economic Research, Slovak Academy of Sciences: [miroslav.stefanik\(at\)savba.com](mailto:miroslav.stefanik(at)savba.com)

knowledge society transition is the expansion of tertiary education. Many social scientists have questioned this expansion in their countries<sup>6</sup>. A rich discussion was dedicated to this issue. The presented article has the ambition to explore whether overeducation can tell us something relevant and useful to enrich this discussion.

The following chapter speaks about some basic assumptions and shortly introduces the four basic ways of explaining overeducation. Second part describes the measurement method and mentions used datasets. The third part brings results of performed measurements and some conclusions. The discussion opens several points for further inquiry.

## Articol I. Theoretical Framework

Overeducation is not a central problem for economy neither sociology. The marginality of this problem can be caused also by a lack in reliable evidence for this field. English written literature makes only a little distinction between “overqualification” and “overeducation”. They both refer to some kind of skills mismatch, but education is not the only way to acquire skills. Qualification is therefore a wider concept than education. The following text apparently deals with overeducation, because it uses evidence on educational attainment. But educational attainment can be used as an indicator for the qualification of an individual, therefore “overeducation” and “overqualification” will stay related.

The analysis is focused on tertiary education and tertiary educated workers. A worker with a tertiary degree is considered to be overeducated, if he works in a position which requires lower than tertiary education.

Let us assume a relatively autonomous segment with tertiary educated workers as a part of the labour market. The supply in this segment is to a wide extent dependent on the output of tertiary education. This is determined, besides the existing capacity of schooling, also by the demand for tertiary education. Demand for tertiary education evolves also according to the skills premium on the labour market. Assuming a rational individual actor, the labour market and the educational market are in this way interconnected.

A simple supply-demand analysis offers a basis for further study of overeducation, but this basis needs to be supplemented with a moment of increasing demand for skills. The cause may be technological change, or simply an increase in capital intensity, but the effect, in changing compensations of tertiary educated relative to other educational groups, is apparent (Goldin, et al., 2008). The skill premium is rising, therefore we can assume that the demand for skilled grows. This can be seen in the majority of most developed countries (Atkinson, 2007). On the other side, if the skill premium grows, it stimulates the demand for education, thus the supply of tertiary educated grows consequently. Expansion of tertiary education can be arranged by increasing existing capacities in tertiary schooling.

Within this scheme, if overeducation is an indicator of decreasing efficiency of investment in education, it should appear as a systematic failure of the market mechanisms. It should be a long-term overlap of supply above the demand of tertiary educated workers. Therefore there is a need to answer questions about the significance and temporality of existing overeducation. Only a significant and long term phenomenon can serve as the point in the discussion about the relevance and feasibility of tertiary education expansion.

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<sup>6</sup> For an overview of this discussion in the UK see: (Elias, et al., 2004)



As regards the temporality, this article answers the question quite intuitively, showing timeline figures viewed from the macro level. The question of significance showed to be more complex, what is supported also by the lack of consensus within existing explanations. Overeducation is a complex phenomenon, which cannot be satisfactorily explained within a simple supply-demand analysis. For better understanding it needs to be put in a broader context, with respect to the situation of an overeducated individual. Theory, based on recent empirical studies offers a variety of explanations, pointing on different aspects of the context of overeducation. These can be grouped into four major explanatory approaches.

### ***Overeducation as a career strategy***

First and most prominent view on overeducation states that it is a career strategy. Several studies<sup>7</sup> are pointing to the fact that younger individuals in earlier stages of their career are much likely to be overeducated. A university graduate entering an overeducated working position, to compensate the lack of working experience, can be a perfect example. A surplus in education compensates for the deficit in working experience. After some experience was gathered, he will look for a more suitable job. In line with this explanation, any individual can also enter and stay in an overeducated working position, because he believes this will give him attractive job opportunities in the future.

Overeducation as a career strategy is consistent with the idea of functioning supply-demand mechanism. In this context, overeducation is only an epiphenomenon existing besides the market equilibrium. It is just the friction in the process of satisfying the demand for skilled work. Existing evidence on overeducation therefore says nothing about the actual situation in supply and demand for skilled. It only says something about the tendencies of individuals to decide to take a job in the early stages of their careers.

### ***Education as an insurance***

This approach is practically complementary to the career strategy approach. The disappearance of whole life jobs, undermining of the traditional commitment between employer and employee, but also melting of job security, is a clearly visible trend. For instance the literature<sup>8</sup> related to the psychology of work points at the change of the psychological contract between employers and employees. Existing expectations connected with the working contract are changing dramatically towards lower security and certainty. Also for this reason, individuals more often use education as an insurance (Keller, et al., 2008) against unemployment or other unexpected situations which became more likely recently. Education, as commonly understood, can give advantage against these kinds of threats. When considered from the policymaker's perspective, this strategy of individuals becomes ineffective; especially in combination with free public schooling.

This can lead to overeducation in the form of supply demand disequilibrium, on the educational market as well as in the labour market. The primary cause can be seen in the irrational behaviour of individuals, as they based their decisions on

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<sup>7</sup> For example: (Sicherman, 1991) (Nicaise, 2000) (Hartog, 2000)

<sup>8</sup> (Sims, 1994) (Robinson, 1996) (Turnley, a iní, 2000)

uncertainty and apprehension. From the systems' point of view the supply hangs over the demand of tertiary educated workers.

### ***Upgrading theory***

This explanation points on the increase in productivity within existing jobs; which should increase within job demand for skills. In line with this reasoning, if an employee with a tertiary education works in a position, which does not according to definition, require such education, this does not mean that he is overeducated. On the other hand, it could mean that the requirements on employee's skills are increasing. The commonly accepted definition of educational requirements linked with this position has to be re-evaluated. Change in requirements can be caused for example by new equipment used at the workplace. According to the economic theory, a combination of new technology and higher education should bring higher productivity to this kind of working positions.

Another assumption of the classical economic theory states that the growth of productivity has to be visible in the rise of wages. Consequently if the upgrading theory is right, the rise in productivity has to be visible in the rise in wages (Borghans, et al., 2000 p. 6). As a result, workers in overqualified positions should receive wages, which are higher than the wages of their colleagues in the same position, with appropriate education. On the other side, their wages should not be significantly lower, than it is common for their educational group.

Upgrading theory states that labour market allocates workers into positions in the way their education gets maximally utilised. The market mechanism works properly and possible evidence on overeducation refers only to a shift in productivity. No other than optimal utilisation of education can be imagined.

### ***Inflation of education***

This approach shows that schooling has besides some manifest functions (preparing for the labour market, dissemination of knowledge) also some latent functions. One of these latent functions is its contribution to the reproduction of the social order. In connection to overeducation, the signalling function of education becomes particularly important. Schooling groups individuals according to several criteria; one of which are intellectual abilities. The achieved educational level of an individual therefore gives information about the "success" in this grouping. A university diploma, in praxis represents the information saying that its owner was able to show the effort, skills and abilities required to complete the university study. The actual knowledge he received during his study is of minor importance in this context.

In a situation of quantitative expansion of tertiary education, the value of the information that education is giving, falls down. With the increased supply of tertiary educated workers employers get more and more picky. Partly because they have more options to choose, partly because the information value of the diploma depreciates. The demand simply adapts to increased supply, but the new equilibrium is less effective from the point of investment into education.

All four presented explanations hint at different aspects of the wider context of overeducation. Each gets its own piece of truth and they can also be used complementary, in combinations. Despite the fact that each draws a different picture of the same issue. Each explanation prescribes overeducation a different character and a different role within the market supply demand mechanisms.

## Articol II. Data and measurement

Formal education can be used as an indicator of qualification. Among possible indicators of qualification, this one has the best coverage of available statistics. Literature<sup>9</sup> on overeducation identifies 3 basic ways of measurement:

**a) Objective approach**

Is based on an objective definition of occupation, which includes the required level of education. Information on required level of education is compared to actually achieved education. An individual who achieved higher level of education as required to perform his job, is considered overeducated.

**b) Subjective approach**

Uses respondents' subjective assessment of required skill level, or educational level. Assessments are mostly gathered by a question in a questionnaire. Wording of the question mostly differs among surveys. Overeducated is the one, who assesses himself as overeducated.

**c) Empirical approach**

Transforms education into a quantitative variable, most often using the number of years spent in education. Average or modus education represents the required education. The usual criterion for distinction is standard deviation. For example an individual who spent in education more years than the average plus one standard deviation, is considered overeducated.

As can be seen, each of these approaches uses a different kind of definition of overeducation. There is no consensus or a domination of one approach in this field. Comparisons between the results of different ways of measurement brought puzzled results (Battu, 2000) (Groot, 2000). Figures, acquired using different methods, showed some correlation, but the relation was weak. One must always bear in mind that the validity and reliability of overeducation measurement are low and that this could affect the results (Sloan, 2004, 18).

### ***Overeducation measurement using ISCO and ISCED classifications***

This text introduces a specific method of overeducation measurement, which is an example of an objective approach. This method is based on the internationally, widely used occupational clasification ISCO, and educational clasification ISCED. What is crucial for this purpose is that, thanks to ISCO definitions it is possible to link main occupational

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<sup>9</sup> Borghans, et al., 2000, Büchel, 2004.

categories with appropriate skill levels. On the other side, skill levels can be, to some extent linked to educational levels defined by ISCED.

ISCO groups jobs into occupational categories according to content of work. Job is defined as a set of tasks and duties which are carried out by a person.<sup>10</sup> There are ten major occupational groups in ISCO, which can be linked to 4 skill levels, thus to 3 educational levels.

Table 1: ISCO main groups, skill and educational levels

ISCO-88 major groups	Skill Level	Educational level
1 – Managers, senior officials and legislators	-	-
2 – Professionals	4	Tertiary
3 – Technicians and associate professionals	3	
4 – Clerks 5 - Service and sales workers 6 - Skilled agricultural and fishery workers 7 - Craft and related trades workers 8 - Plant and machine operators, and assemblers	2	Secondary
9 - Elementary occupations	1	Primary
0 – Military occupations	-	-

Source: (Elias, 1997, p. 7)

As far as formal education is not the only way how skills can be acquired, the link between occupational category and educational level becomes a little complicated. A worker working in a job, which is classified into one of ISCO 4 - ISCO 8 categories, needs to have a certain level of skills. According to ISCO definition, this level of skills is adequate to secondary education. He acquired these skills either completely through formal education (completing secondary education), or as a combination of primary education with other sources of

<sup>10</sup> For more information on ISCO definitions see: <http://www.ilo.org/public/english/bureau/stat/isco/isco88/anc1.htm>

skills, as for instance on job training or praxis. If this person has completed tertiary education, we could say that he or she is overeducated. The measurement method used in this analysis is based on this distinction. It is focused only on the overeducated with a degree. Managers, senior officials and legislators (ISCO 1) and Military occupations (ISCO 0) are excluded from the analysis, because ISCO definitions do not link these categories with a particular skill level. In summary, a definition of an overeducated can be restricted to working individual of ISCO4 - ISCO8 with tertiary education.

10 occupational categories, 4 skill levels and 3 educational levels allow creating only a vague recognition of overeducation. Its dominant advantage is the availability of data classified according to ISCO and ISCED. Only rough information can be dug out, but this method can be widely used to compare it in time, and between countries.

International comparisons are the major purpose of the ISCO-ISCED measure. But several complications appear in this context. It is not only the roughness of acquired information which is limiting the results. Despite the fact that ISCOs main goal is to offer internationally comparable data, unfortunately a significant bias is often caused also by the international differences in ISCO coding. Reliability research in the 90ties brought agreement rates from occupational recoding over 85 per cent, when considered on the 1-digid ISCO level. (Elias, 1997 s. 10) The problem of reliability showed not to be the fundamental one. This probably is the lack of common understanding and interpretation of the conceptual basis between countries. (Elias, 1997 s. 15)

Another source of bias can be identified in the fact that ISCO-ISCED measure excludes the ISCO 1 group of Managers, senior officials and legislators. While Military occupations are only a slim proportion of the occupational structure, without any significant international differences, managers, senior officials and legislators represent a more substantial number. International differences in the proportion of ISCO 1 group are also significant.

Application of ISCED brings similar problems, but the ISCO-ISCED is using only the distinction between tertiary and other educational levels. This distinction is fairly clear also when comparing European countries.

### ***Used datasets***

Thanks to the wider usage of ISCO and ISCED, the overeducation variable can be constructed in various datasets. The most prominent is the data from the Census in 2001. These data are available in the public database of Eurostat. No individual data was needed, only aggregated data grouped according to ISCO and ISCED.

Except for these data, computations were applied also on European Community Household Panel (ECHP) datasets. It offers the opportunity to construct timelines (from 1994-2001) and also surveys some information on wider context of overqualified workers.

A pre-analysis was done also on data from European Working Condition Survey<sup>11</sup>, European Social Survey<sup>12</sup> and International Social Survey Programme<sup>13</sup>. These surveys offered data of lower reliability and validity. Any results presented latter will therefore come either from the Census 2001, or from the European Community Household Panel.

All analysis was done only on tertiary educated workers classified in ISCO 2 – ISCO 9 categories, using the ISCO-ISCED method to identify those who are overeducated.

### **Articol III. Results of overeducation measurement**

After introducing the explanations of overeducation and the method of measurement, the attention can be drawn back to the question, raised at the beginning. What can overeducation tell us about the situation in supply and demand for tertiary educated? Is overeducation a result of an overlap in supply of tertiary educated workers? Let us see what existing evidence tells us. The use of the ISCO-ISCED allows to make international comparisons. Despite their increasing interconnection, the labour markets of the European countries are still relatively autonomous; as well as educational or labour market policies. The following graph can help to answer the question about the incidence of overeducation in European countries. It is based on data from the Census in 2001.

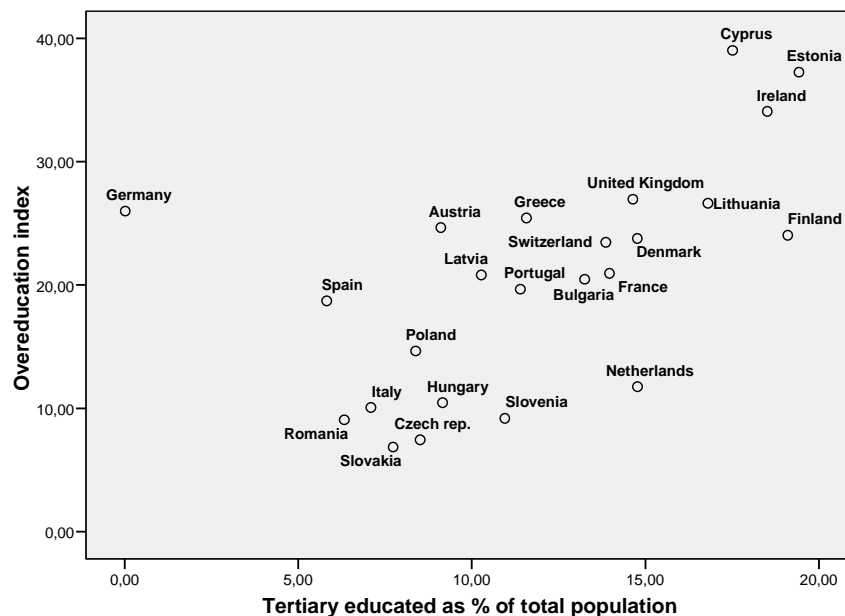
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<sup>11</sup> <http://www.issp.org/>

<sup>12</sup> <http://ess.nsd.uib.no/ess/>

<sup>13</sup> <http://www.issp.org/>

Graph 1: Overeducation<sup>14</sup> in European countries related to the proportion of tertiary educated in population



Source: Eurostat, Calculated using data from National level census 2001 round

The Graph displays European countries in dimensions of overeducation and the proportion of tertiary educated in total population. Vertical position tells about the incidence of overeducation in each country. Data on educational attainment from Germany were described by Eurostat as “extremely unreliable”. Horizontal position of Germany seems to be unreliable, but this does not pay for the vertical position. Post communist countries of the Central and Eastern Europe, together with Italy are clustering in the left and low end of the field. The biggest group of countries is located in the middle, with figures between 20 and 30 percent of overeducated workers and from 10 to 20 percent of tertiary educated population. This group includes EU 15 countries as well as Bulgaria, Latvia, Lithuania. We can expect Germany would join this group, if the data on educational attainment would be correct. Cyprus, Estonia and Ireland showed overeducation numbers higher than 30 per cent. The Netherlands and Spain are standing out of the groups. Spain is a country with relatively low proportion of tertiary educated and relatively high overeducation. The Netherlands is in opposite position.

The presented graph also shows the relation between overeducation of tertiary educated and the proportion of tertiary educated in the total population. This relation seems to be linear and positively correlated. If more people in the country are tertiary educated, the proportion of overeducated among those tertiary educated

<sup>14</sup> Overeducation index is counted applying the ISCO-ISCED as the share of overeducated among all workers with degree classified into ISCO 2 - ISCO 9.

grows. The Pearson's correlation coefficient for this relation is 0.581 at the 0.01 significance level. This kind of national level analysis, offers the opportunity to explore similar macro relations. A correlation analysis was done also to test the relation between overeducation and:

- total unemployment
- unemployment of tertiary educated
- number of graduates among the total population
- numbers of students in tertiary education as a share of total population
- expenditures on tertiary schooling as a % of GDP

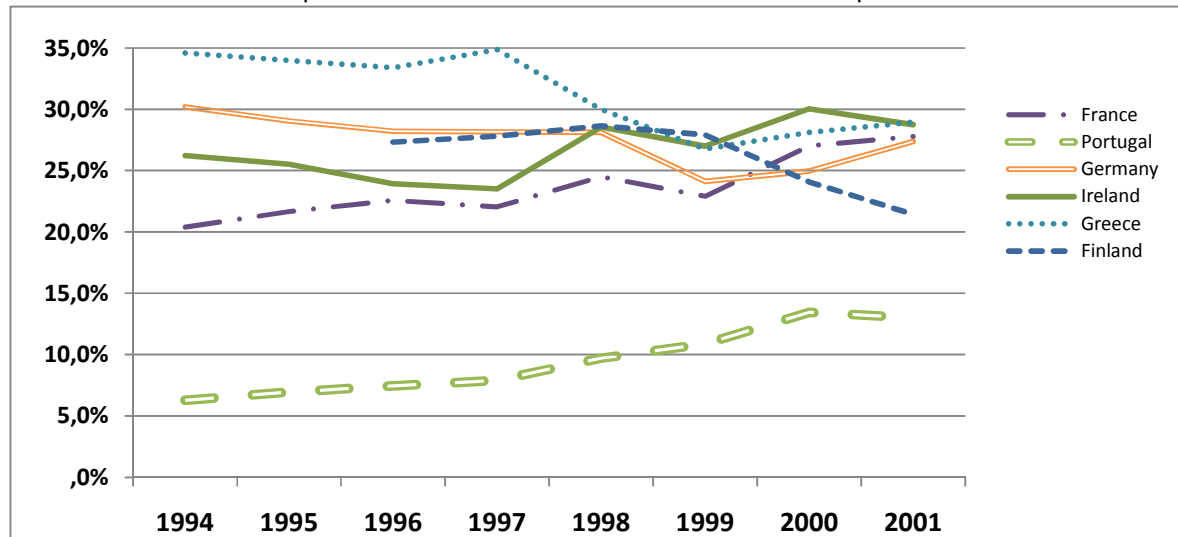
None of these relations showed any significance. Unemployment, as an indicator of the demand side and numbers on tertiary schooling, as an indicator of the supply side, showed no preliminary relation. This suggests that overeducation presents a complicated issue, which cannot be closed exclusively into a supply-demand conceptual scheme. Other factors need to be included into the analysis.

### ***3.1 Temporality of overeducation***

Another question, which is interesting in this context, is the temporality of overeducation. In this respect, individual and macro level of overeducation need to be distinguished clearly. There is no distinct consensus on the temporality of overeducation on the individual level. Some studies suggest that it is only a short-term problem (Elias, et al., 2004) (Duncan, et al., 1981), what is complementary to the "career strategy explanation". Some have found out that overeducation is a long-term problem for certain groups of workers (Dolton, et al., 2000). The following graph shows overeducation, perceived from the macroperspective for selected countries during an eight years long period. These data come from the European Community Household Panel.



Graph 2: Overeducation timelines for selected European countries



Source: Calculated using data from European Community Household Panel, all rounds

As can be seen from the graph, the strongest group of European countries stays constantly between 20 and 30 per cent of overqualified among all workers with tertiary education. Portugal lies under this main group, showing the tendency to converge. On the other side, Greece stayed above the group with higher numbers of overeducation until 1998, when it joined the main group. Presented timelines are mostly stable and continuous. This suggests that, if it is seen from the macro level, overeducation can be considered as an enduring and ever-present phenomenon; and this pattern seems to be international.

### 3.2 The character of overeducation

The question about the character of overeducation is the question about its significance and role within the labour market supply-demand mechanisms. Which of the above-mentioned explanations of overqualification fits the best to existing evidence from European countries? Is there any uniform pattern, which can be identified as common for overeducation in European countries? What are the differences? The next table refers to four explanations of overeducation and link them with indicators and criteria for their testing. As it was mentioned before, none of the presented explanations clarifies the problem. A combination of explanations would be more suitable. Following testing has a character of a pre-analysis. Identified indicators, criteria, as well as the whole testing are very simple. It is supposed to give a rough idea about the differences in character of overeducation across European countries, focusing on the context of overeducated.

Table 2: Explanations, indicators and criteria

Explanations	Indicators	Criteria
Career strategy	Age	Young people are more likely to be overeducated.
Education as insurance	Unemployment experience <sup>15</sup>	Experienced unemployment increases the likelihood of overeducation.
Upgrading theory	Wage	Overeducated does not earn less than the rest of their educational group. <sup>16</sup>
Inflation of education	Wage	Overeducated earn less than the rest of their educational group. <sup>17</sup>

The role of wage as an indicator is a little more complicated than the role of age and unemployment experience. A dominant pool of overeducation studies confirmed that overeducated earn less than the rest of their educational group. On the other side, they earn more than the rest of their occupational colleagues. This evidence finds the truth somewhere in the middle between upgrading theory and inflation of education explanation. Therefore, wage as an indicator, with criteria formulated above offers only informative testing of presented explanations. The advantage of this testing is the possibility of international comparisons.

The introduced criteria will be used in one binary logistic equation; with a binary dependent variable of being overeducated. The equation examines the effect of independent variables on the likelihood of overeducation. Besides age, experienced unemployment and wage, the equation includes also some other independent variables. It is job security satisfaction to complement the experienced unemployment with a subjective measure. Gender, as a generally important feature in the realm of work. Sector of employment, as it showed to be universally significant when analysing overeducation, using this method across European countries. The equation in a simplified form was.

$$z = A + age + experienced\ unemployment + job\ security + \ln wage + gender + sector$$

$z$  is a variable referring to the likelihood of overeducation.  $A$  is a constant. The equation uses a natural logarithm of wage.

<sup>15</sup> Is the response in a question, whether the respondent was unemployed before entering current job.

<sup>16</sup> This criterion is based on the assumption of classical economic theory, when on a perfect market; employer hires employees until the marginal productivity from the next unit of work is higher than additional labour costs, dominantly formed by the wage of the new employee. As an implication of this assumption, labour costs and wages are linked with the productivity. When the productivity rises, thanks to new technology, higher capital intensity, or increased human capital in the form of higher education, the wages have to follow.

<sup>17</sup> This criterion argues, that the productivity on the position remains the same and employers employ employees in overeducated positions just because there is enough of them on the market.

The analysis was done on the data from the European Household Panel, 8. round from 2001, for each country separately. Only 10 countries, from the total of 15 were picked up. Five were dropped because of low numbers of responses, differences in questionnaires or in the use of classifications. The following table shows the results of the analysis.

Table 3: Result of the binary logistic regression

	BE <sup>18</sup>	DE	DK	FI	FR	GR	IRL	IT	PT	ESP
	B (S.E.)	B (S.E.)	B (S.E.)	B (S.E.)	B (S.E.)	B (S.E.)	B (S.E.)	B (S.E.)	B (S.E.)	B (S.E.)
Age	-0,014 (0,013)	0,006 (0,009)	-0,003 (0,014)	-0,016 (0,014)	-0,004 (0,014)	-0,021 (0,016)	-0,020 (0,016)	<b>-0,052*</b> <b>(0,022)</b>	-0,002 (0,024)	<b>-0,027*</b> <b>(0,011)</b>
Experienced unemployment	<b>0,596*</b> <b>(0,204)</b>	<b>0,537**</b> <b>(0,171)</b>	0,141 (0,268)	0,513 (0,263)	0,182 (0,247)	-0,192 (0,229)	0,113 (0,401)	0,286 (0,254)	0,076 (0,374)	<b>0,523**</b> <b>(0,138)</b>
Job security satisfaction	0,102 (0,071)	NA <sup>19</sup>	-0,075 (0,092)	0,123 (0,096)	-0,044 (0,104)	0,129 (0,096)	0,149 (0,123)	0,152 (0,095)	<b>0,464*</b> <b>(0,181)</b>	<b>0,099*</b> <b>(0,049)</b>
Wage	-0,217 (0,135)	- <b>0,654**</b> <b>(0,120)</b>	- <b>0,483*</b> <b>(0,161)</b>	- <b>0,581*</b> <b>(0,122)</b>	- <b>1,382*</b> <b>(0,266)</b>	- <b>0,571*</b> <b>(0,175)</b>	-0,338 (0,205)	0,047 (0,203)	- <b>0,683*</b> <b>(0,238)</b>	- <b>-0,702**</b> <b>(0,110)</b>
Gender	-0,174 (0,189)	<b>0,382*</b> <b>(0,178)</b>	<b>-0,524*</b> <b>(0,267)</b>	-0,069 (0,250)	-0,092 (0,234)	0,043 (0,220)	-0,064 (0,309)	-0,415 (0,258)	-0,371 (0,333)	<b>0,350*</b> <b>(0,138)</b>
Employed in a private sector	<b>0,998*</b> <b>(0,201)</b>	<b>1,115**</b> <b>(0,193)</b>	<b>0,603*</b> <b>(0,265)</b>	<b>1,171*</b> <b>(0,261)</b>	<b>1,042*</b> <b>(0,263)</b>	<b>1,051*</b> <b>(0,240)</b>	<b>0,910*</b> <b>(0,332)</b>	0,513 (0,272)	<b>1,911*</b> <b>(0,387)</b>	<b>0,725**</b> <b>(0,158)</b>
Constant	1,402 (1,731)	4,322 (1,241)	4,207* (1,830)	4,504 (1,573)	14,843 (2,915)	7,414 (2,355)	1,626 (1,863)	-0,237 (1,931)	5,084 (3,109)	9,203 (1,476)
N	622	954	588	545	504	460	252	332	393	1083
2 Log-Likelihood	735,14 2	997,638	452,72 2	462,21 8	503,95 7	524,77 5	284,58 5	388,16 6	379,19 4	1311,21 5
Cox and Snell R Square	0,062	0,097	0,037	0,119	0,150	0,097	0,072	0,048	0,119	0,122
Nagelkerke R Square	0,087	0,143	0,067	0,191	0,218	0,137	0,102	0,069	0,210	0,166

Source: Counted from the 8. round of European Community Household Panel

The presented table displays gathered coefficients for each country. It is surprising that the most prominent explanation of overeducation as a career strategy gets only a low support by the evidence. The fact that only two of the countries brought a significant coefficient can be caused also by the vague method of

<sup>18</sup> BE- Belgium, DE- Germany, DK- Denmark, FI- Finland, FR- France, GR- Greece, IRL- Ireland, IT-Italy, PT- Portugal, ESP- Spain

<sup>19</sup> The question about job security satisfaction was not included in the German questionnaire. The variable was excluded from the German equation.

measurement. In Italy and Spain, younger tertiary educated workers are more likely to be overeducated than older.

Experienced unemployment showed some significant relation with the likelihood of being overeducated in Belgium, Germany and Spain. Previous experience with unemployment increased the likelihood of being overeducated in both countries. Overeducated workers in Portugal and Spain declare significantly higher job satisfaction than matched tertiary educated workers. Experienced unemployment, as well as job security satisfaction supports the education as insurance explanation. As can be seen from the table, this explanation finds supporting evidence in 4 countries.

In 7 countries, lower wage increases the likelihood of being overeducated. This is in line with existing knowledge on this issue. The most interesting thing on this is that it does not pay for all examined countries. In Belgium, Italy and Ireland this effect was insignificant.

Gender brought the most confusing results. Its effect on overeducation was significant only in Germany, Spain and Denmark, but the direction of the effect is changing across these countries. A positive coefficient in case of Spain and Germany means, that being a man increases the likelihood of being overeducated. This is not consistent with what is commonly assumed.

The strongest effect showed to be the sector of employment. If a worker with tertiary degree is working in the private sector, he is more likely to be overeducated than in the public sector. This was confirmed in 9 examined European countries.

The real finding of this analysis is not the verification or falsification of mentioned explanations, but the information that there are serious differences in the character of overeducation. Using the same method on data collected by the same methodology enables to focus on these differences internationally. The context of those who are overeducated seems to play an important role and it varies across countries. In Italy, overeducation can be explained more as a career strategy, in Belgium more as a result of using education as insurance. In case of Spain all of the presented explanations can be useful. Some common patterns can be found, but we can conclude that the overall character of overeducation changes across the European countries.

What does it say about the situation in supply and demand in the labour market? Presented evidence on overeducation, viewed from the macro perspective in several European countries, showed that it is an omnipresent and long-term phenomenon. The level of overeducation of tertiary educated is related to the proportion of tertiary educated among the population. But there is no relation between overeducation and

unemployment rate, tertiary schooling capacities, or investment into tertiary schooling. Omnipresence, or continuity is not enough to declare overeducation to be a consequence of the labour market disequilibrium. We need to look at the character of existing overeducation. For example in Italy, overeducation has, to a big extent, a shape of a career strategy. Therefore, it can be assumed that it is not caused by the excess in supply of tertiary educated, even if it is a long term phenomenon. On the other side in Spain, Belgium or Germany, previous experience with unemployment seems to play an important role. As an implication it can be concluded that people take overeducated jobs to avoid repeated unemployment, which means they are using education as insurance. This strategy becomes more feasible for individuals acting in the environment of fulfilled demand and excess supply of overeducated. In this situation, overeducation tells something about the situation in supply and demand of tertiary educated workers; it tells that there is an overhang of supply. Further analysis of the character of overeducation, focusing on the context of overeducated is necessary. This is the way to formulate the message, existing evidence on overeducation is telling us.

## Discussion

The central question behind this article is whether and what can overeducation tell us about the situation in supply and demand of tertiary educated workers. Using a "low cost" method of overeducation measurement enables to get data from several datasets. Even from the National census of 2001. The used method has several restrictions. Reliability, as well as validity problems, but it offers the opportunity to make international comparisons of overeducation.

The presented reasoning suggests that overeducation could, under certain circumstances, be a consequence of excess in supply of tertiary educated. Overeducation needs to be a long-term, persistent phenomenon, but this is not enough. The character of the phenomenon is also important. For example overeducation as a career strategy is not a consequence of excess in supply of tertiary educated. Therefore the attention needs to be drawn on the wider context of overeducated. Results of the analysis showed, that the character of overeducation changes across European countries. Each country needs therefore a separate attention.

There are countries where overeducation seems to be a consequence of excess in supply of tertiary educated, but this does not mean that any further investment in tertiary education would be inefficient. The reasoning used in this analysis reduces education to an investment, which should be utilised latter, during the working years as higher productivity, wage and lower risk of unemployment. In praxis, education cannot be reduced into exclusively and only the preparation for labour market; in modern societies it serves in various ways. For example schooling occupies young people, presents a way of socialisation, preserves existing values and order, offers an opportunity to build relations, and many others. Therefore any information about the

situation of supply and demand has only partial relevance in the discussion about efficiency of investment in education and schooling.

The concept of skill biased technological change claims that the spreading of new technologies increases the demand for more skilled and more educated workers. In last decades, this trend has created a race between schooling and technology. As technology increases the demand for educated workers, schooling has to adjust to this changed setting. In the modern societies, the most expanding segment of schooling is tertiary schooling. If overeducation is a consequence of excess supply of tertiary educated, it could suggest that schooling is ahead in this race. On the other side, rising returns to education speak in favour of technology.

In most countries, the evidence suggests that overeducation is more likely just a friction than a result of labour market disequilibrium. The attention should be shifted onto lowering this friction, because it also presents a form of inefficiency. In situation of high returns from education and high overeducation, the policy makers should focus their interest on the content of provided education and examine its match with employers' requirements.

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## Pedagogic innovation through simulated enterprises – a prerequisite for higher education economic adaptation to the requirements of the knowledge society

Cristina Gănescu<sup>1</sup>, Silvia Dugan<sup>2</sup> and Laura Dindire<sup>3</sup>

<sup>1 2 3</sup> "Constantin Brâncoveanu" University of Pitești

**Abstract.** *The proposed theme is consistent with the current concerns of the European Union aiming to create a "Europe of Knowledge" in which people are able to live and operate in a competitive environment based on knowledge. Addressing innovation as a condition of higher economic education adaptation to the demands of modern society, this paper aims to provide a perspective on the use of new teaching methods, to test not only knowledge, but especially practical skills in various business activities from inside the simulated enterprises, offering those interested a reason to support their application in higher education.*

**Keywords:** innovation, interactive teaching methods, knowledge society, individual creativity.

**JEL Codes:** D83.

### 1. Introduction

In today's society, higher education will act as the engine of the new economy as the reorganization of a company that is transforming the way we live and learn how to teach, the nature of knowledge transferred, arrangements for evaluating and assessing the outcomes of educational relations educated and educators with whom we have been accustomed for decades. By vocation, mission, objectives and functions, the university will contribute to the building and assertion of new knowledge and learning society [1]. Higher educations occupy a privileged role and at the same time, bear a great responsibility in that a university experience and activity are important factors of development. Thus, although there is now a so-called demand of higher education market, universities do not yet have the coping mechanisms of involvement in the game market. In this context, it is required to correlate the study programs offered by universities with the future jobs offered by the current economic environment and outlook.

European [higher education institutions](#) are facing these last years a number of relevant political and social changes that have asked for more transparency, accountability, comparability and legitimacy of degrees. In the light of these new challenges, the great majority of universities have responded by implementing quality assurance processes, either through evaluation or through accreditation. Orsingher collects [2] the evaluation and accreditation experiences gathered by higher education institutions in Finland, France, Germany, Italy, the Netherlands, Spain, the United Kingdom and Sweden. It provides a synthetic picture of the present state of quality assurance practices in Europe and offers a few lessons for a future European dimension of quality assurance. J.C. Smart [3] focuses on twelve general areas that encompass the salient dimensions of scholarly and policy inquiries undertaken in the international higher education community.

Crosier et al. [4] conclude that the coexistence of the old and new systems and the insufficient information conveyed by higher education institutions has most likely favoured the surge of controversy on its implementation among higher education institutions, students, and labour markets. According to that paper, an indicator of scepticism concerning the benefits of the Bologna process is the fact that only 22% of the institutions surveyed reported that most of their students will enter the labour market after finishing the first cycle. Employers' lack of information on the Bologna principles, on the one hand, and the belief, among academics and parents, that the master's level is the "real degree", on the other hand, may explain the apparent reluctance of graduates to enter the labour market after concluding their first cycle of studies.

Over the past decade, new dynamics have emerged in each of the key domains of higher education, research and innovation, which are the integrated base for the Forum's activities [5]. In higher education, these include: demand, diversification of provision, changing lifelong learning needs, and growing Communication and Information Technology (CIT) usage and enhanced networking and social engagement, both with the economic sector and with the community at large.

In this study we started from the idea that adaptation of future graduates of the "Constantin Brâncoveanu" University of Pitești to labour market requirements will be supported to a greater degree of implementation of simulated businesses stronger university and use interactive teaching methods. In other words, it is assumed that the various interactive teaching methods known and applied by teachers on the one hand, and the simulated enterprises used as an essential tool in the practical training of students, on the other hand, will have a more or significantly less capacity to adapt to future graduates on the labour market.

First, it should be noted that simulated enterprises are a modern form of training, used worldwide (European global network – EUROPEN- includes over 4,000 simulated firms), helping students to learn by working effectively. As it has already been proven, Romanian and foreign universities have set up business simulation which contributed to more rapid integration of future graduates in the various areas addressed in the simulated enterprises, by using actual, practical skills and abilities in their training.

## 2. Research

**The research goal** is to determine how the use of different teaching methods, traditional or modern, of the simulated enterprises, is correlated with preparing students for the labour market. We want to emphasize the importance of teaching innovation in higher education by creating simulated enterprises, especially the need for thorough preparation of future graduates and their adaptation to the market demands. The concept of educational innovation means the transition from tradition to modernity, by introducing changes in order to increase the efficiency of training and the personality of the contemporary man. Innovations in higher education can be achieved by trying to change the people's preconceptions on modern teaching methods. Thus, this research aims to continue the previous ones regarding the connection between teaching methods – the practical training of students, on the one hand, and the students' adaptability to the labour market, on the other hand.

**The objective of this research** is to identify the propensity of teachers in the "Constantin Brâncoveanu" University of Pitești to pedagogical innovation, namely the interactive teaching methods, modern, and to identify awareness and willingness on the implementation of simulated enterprises in the university as a modern method of training in higher education. **The specific objectives** are: identifying teacher inclination to classical and modern interactive teaching methods; highlighting how to deal with theoretical concepts and practical concerns regarding proper applicability; highlighting the actions initiated by teachers to support innovative, creative students learning; identifying methods and procedures to stimulate and drive individual and group creativity used in teaching; identify knowledge and availability of teachers to participate in creating and carrying out simulated business activities; highlighting the main advantages of simulated operation functioning and of the obstacles to use this instrument in the University; to identify concerns regarding the improvement of teaching -learning –evaluation methodology.

### **The research hypotheses are:**

- First hypothesis claims that different methods and the stimulation of the individual and group creativity used in teaching are positively correlated with students' practical skills, enabling them to understand the real problems of economic life;
- The second hypothesis research says that there is a strong correlation between teachers specializing in their teaching area and theoretical concepts approaching;

- A third hypothesis argues that there are no differences according to academic rank in terms of staff capacity to support students' innovative- creative learning;
- Fourth hypothesis states that there are no significant differences between centres in knowing simulated enterprises significance as a method of students' practical training.

**Research methodology.** This study is based on a questionnaire applied research directed towards identifying the orientation of teachers on teaching innovation. The research was conducted on a sample of 65 teachers of the "Constantin Brancoveanu" University of Pitesti. The data collection instrument used was a questionnaire developed by the authors of research that includes 19 items. Of these, four were identification items and the other 15 ones aimed at self-evaluation of the educational activities. Respondents had to examine each claim and to give scores from 1 to 4 (strongly disagree, partially disagree, partially agree and strongly agree). In order to fasten things up, we chose to send the questionnaire to the teachers, by e-mail, giving requirements in completing the questionnaire, without imposing a time limit. It was also noted that the team will maintain the confidentiality of responses and that data will only be used for the purpose of this research. For all presented hypothesis to be tested, data were processed using statistical processing program SPSS.12.

**Results of Analysis and Processing.** The Research sample is representative and has the following structure:

- the majority of the surveyed teachers come from Pitesti (43.08%), then from Braila (32.31%) and Râmnicu Valcea (24.62%);
- according to the teacher's degree (Figure 2), the sample structure is as follows: Ph. D. Professor - 7.69%, Ph. D. Associate professors - 15.38%, lecturers - 46.15%, Ph. D. assistant professors - 18.46%, assistant professors - 9.23 % and junior academics - 3.08%;
- depending on the length of higher education, the situation is as follows: there are nine respondents over 20 years of seniority (13.85%), 11 teachers between 15 and 20 years seniority (16.92%); 18 people between 10 and 15 years seniority (27.69%), 21 people between 5 and 10 years (32.31%), and six teachers under 5 years seniority (9.23%);
- the majority of the surveyed teachers are women (75.38%), as compared to the number of men (24.62%).

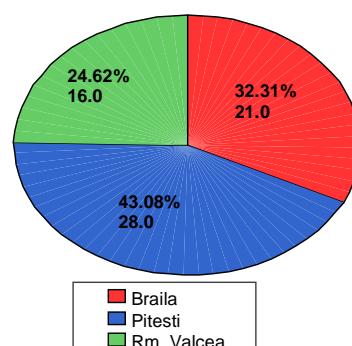


Fig. 1: Sample structure of the centers

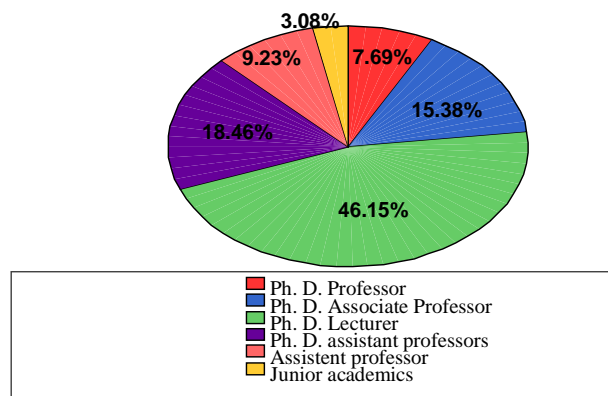


Fig. 2: Sample structure by the length of higher education

Analyzing teachers' propensity to **use interactive teaching methods** (Figure 3), it is revealed that the majority (50 persons or 77%) consider the use of modern technology in teaching as a proper method, while only 15 respondents, and 23% disagree. It also notes that most teachers (50 respondents, i.e. 77%) encourage students to draw up practical projects aimed at economic issues in real life (Figure 4).

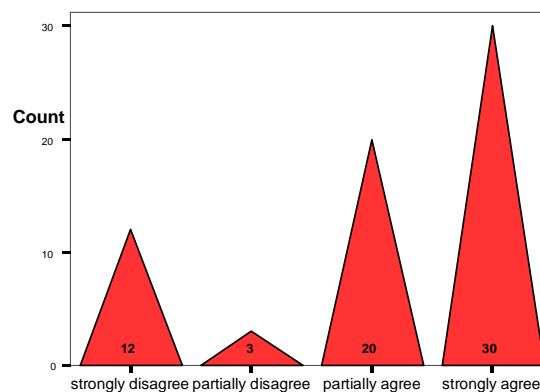


Fig. 3: Propensity to use interactive teaching methods

#### Encouraging students to draw up practical projects

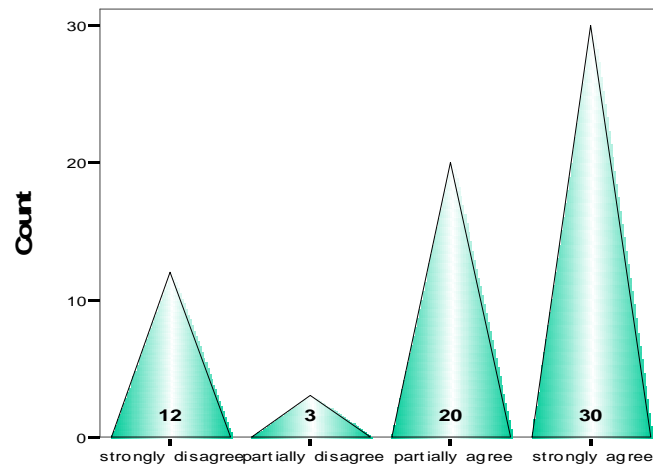


Fig. 4: Encouraging students practical projects

Among the methods and processes used to stimulate and train individual and group creativity, a significant number of respondents (64.7%) indicated that they use more modern methods as compared to the classical ones. Among modern teaching methods there were mentioned: brainstorming method (38.5%, Figure 5), the games business (26.2%, Figure 6) and research and discovery (40%), which shows an increased propensity to modern methodology.

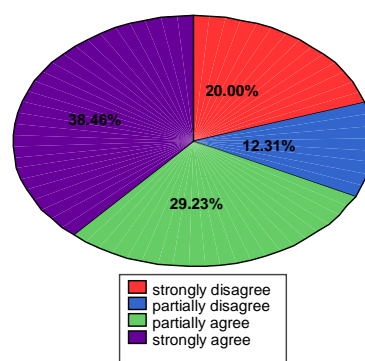


Fig. 5: Inclination to use brainstorming method

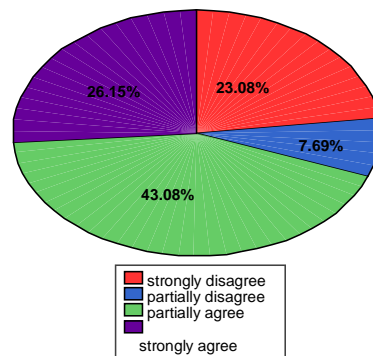


Fig. 6: Inclination to use the games business

The first hypothesis, stating that there is a connection between the teaching methods used and the practical skills acquired by students, is verified, which means that teaching methods based on innovation and creativity affect the development of students' ability to understand the real problems of economic life and helps them in their future jobs adaptation.

It is to be noted that a share of 44.6% of the area teaching specializing teachers, have also past practice, and 49.2% are currently working in the field of teaching. Most of the teachers surveyed (80%) indicated that they support the concepts taught with practical examples, even if they are taken from sources other than their own experience. In addressing the theoretical notions, most respondents (57 teachers, 87.69% respectively) say they are under constant connection between theoretical concepts and their practical applicability (Figure 7). By correlating the two variables, we have discovered that many of those stating that they consistently combine theoretical concepts with practical means, 32 teachers, i.e. 49% are currently working in the field of teaching practice. Also, those who disagreed to combine theory and practice (6.2%) are no longer operating in the field of teaching. Therefore, the second hypothesis, which states that there is a relation between teachers and theoretical concepts specialized approach seems to be proved.

Regarding **teachers' ability to support students' innovative and creative learning**, starting from their individual peculiarities, it may be noted that 46.15% expresses total agreement on the students' creative development and 40% shows partial agreement (Figure 8). Only 7.69% of those surveyed disapprove of it. By correlating this variable with the academic rank, it appears that the university professors and lecturers fully support innovative, creative learning, and those who show a reduced tendency to do so, are more people with lower academic degrees. However, there is not a strong correlation between the two variables, which leads to the idea that the third research hypothesis is also validated.

**Connection between theoretical concepts and their practical applicability**

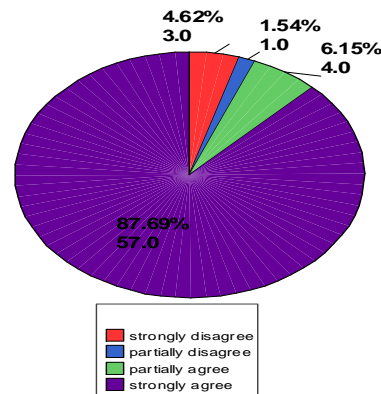


Fig. 7: Connection between theoretical concepts and their practical applicability

**Support students' innovative and creative learning**

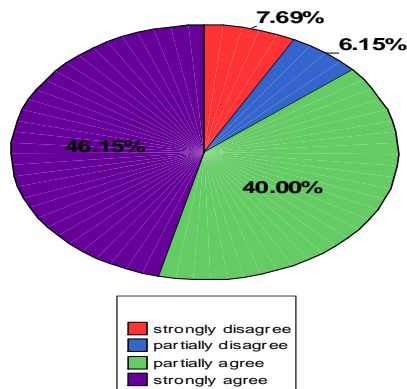


Fig. 8: Support students innovative and creative learning

**The simulated enterprises significance understanding** is a reality, so that the majority of university teachers (59 respondents, i.e. 90.77%) indicate that they have information regarding simulated enterprises and their benefits over teaching and future graduates (Figure 9). If we examine this variable on centres, we see that there is a close connection between the teachers and the simulated businesses knowledge origin. Therefore we confirm the fourth hypothesis according to which centres do not differ in terms of knowing the significance of simulated firms.

**The simulated enterprises significance understanding**

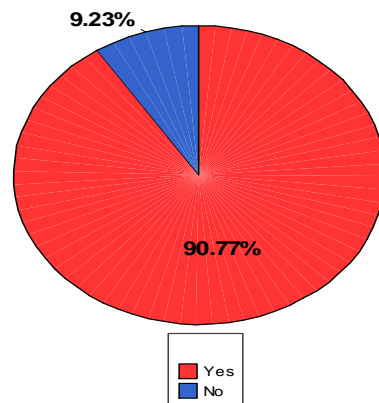


Fig. 9: The simulated enterprises significance understanding

**The simulated business benefits**

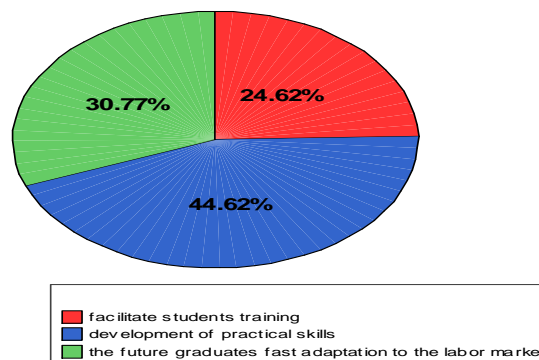


Fig. 10: The simulated business benefits

By analyzing **the simulated business benefits** for both students and the teaching process, it appears that the main advantages identified by respondents are: development of practical skills - 44.62%, the future graduates fast adaptation to the labor market - 30.77% and facilitate students training - 24.62% (Figure 10). Regarding **the obstacles in the implementation of simulated enterprises** adumbrated at the university, 17% of respondents felt that they would hold the work program of trainers and students, 17% believed that there could be difficulties in persuading students to participate in the development of specific activities and 15% considered that an obstacle may be the additional financial resources this method of training would require.

### 3. Conclusions and suggestions

We believe that the present study adds knowledge to the issue of pedagogical innovation, demonstrating that the application of innovative teaching methods, creative educational and support, focused less on memorizing information and reproduction of knowledge and more on developing students' creative skills, are entirely in conformity to the new demands of the knowledge-based society. The



implementation of simulated business as a modern training form represents a real necessity for any institution of higher education addressing the economic area, in the context of an extremely demanding job market, imposing to its employees to possess practical business features and special abilities. The purpose and applicability of this research are to provide points of support in future changes to be put into practice at the university in the context of higher education need to adapt to the demands of the knowledge society. Taking into consideration the above mentioned, we propose the creation of simulated enterprises inside our institution focusing more on the development of these modern training methods, which we consider to be an opportunity for graduates to adapt to the requirements of the extremely difficult job market.

### 3. Acknowledgements

Thanks to all the teachers from "Constantin Brâncoveanu" University for their support.

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## The Virtual Architectural Studio – An Experiment of Online Cooperation

Raluca Livia Niculae<sup>20</sup>

Spiru Haret University, Romania

**Abstract:** *This paper raises the question of the stages of assimilation of the new information and communication technology in the field of architectural education from its insertion as a visual support and tool in the designing process to the use of the virtual medium as a mediator off the processes of interdisciplinary and intercultural cooperation irrespective of the geographic area and the time zone differences. The architectural studio with its real physical space and pedagogic method is in the middle of architectural education. The development of the 2D and 3D designing programs combined with the image and data communication technologies enables the virtual dimension of the experience of the architectural studio. As an alternative to the traditional studio, coming to improve the formal instruction and not to replace it, the students in different locations may ‘meet’ in the timeless and bodiless virtual space to solve the same designing problem. Commentaries and criticism may be brought in the network, by e-mail or chat, and the final projects may be submitted to judgment without the actual presence in a physical space of the judgment board. The architecture virtual studio has the potential of supporting cooperation in the detriment of competition, of diversifying the student’s experiences of to redistribute the intellectual resources of architectural education beyond the geographical borders and socio-economic division. The challenge consists in foretelling whether the architectural studio will alienate the students from a sense of space or whether it will be the mediation tool between the communication media and the physical space.*

**Key words:** methods of education in architecture, the architecture virtual studio, information and communication technology, collaborative learning, interculturality, interdisciplinarity.

### Introduction

The modern approaches to education promote *active, collaborative learning*, the *case study* with concrete solutions. Such directions are supported by technology as a means of learning, communication and collaboration. Society needs individuals who think critically and strategically in solving the problems, who learn fast and adapt to the ever changing environment, consolidating their knowledge by various sources and from various perspectives. The modern individual, in the current context of globalization must know various methods of approach in various contexts, must collaborate locally and globally.

These attributes contrast with the traditional teaching methods with the teacher at the center of the teaching/learning process and the student as the passive receptacle of information. With the progress of research in the line of information and communication technology, various hardware and software facilities may be brought in the classroom to facilitate the transmission of

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<sup>20</sup> Assistant Prof. Arch., 0722 264734, [ralucalivia@yahoo.com](mailto:ralucalivia@yahoo.com)

information. On the other hand, the idea of classroom may be extended from the real physical space to the virtual space. The educational message usually related to the physical space may be conveyed at a great distance.

This paper investigates the way in which technologies influence the traditional formal learning at the level of architecture practice under the form of the architectural studio. The desire to overcome the limits of traditional university space and the desire to investigate the new technologies is affecting architectural education and solves a technological and technical deadlock typical for the field: the distance collaboration between the specialists in architecture or the interdisciplinary collaboration in solving a real case located on a real location in real time.

By defining a virtual designing environment based on the new technologies which promote the integration of the interdisciplinary approaches in the context of an architecture project and define designing solutions assigned to a real context, new strategies are developing in the architectural education.

### **Applications of the new technologies of information and communication (ICT) in the architectural education<sup>21</sup>**

#### *a. Collective-inductive learning*

One of the uses of the Internet in instruction is the distribution of information to students, a substitution of the textbooks. The Internet is used as an information storage resource, a virtual bookshop. One of the most important innovations by using the Internet is the possibility of exchanging information between specialists in the same field, intercultural and interdisciplinary exchange of information between students, students and specialists, students and teachers. The exchange of information implies a feed-back and results in shaping the process of collaboration.

#### *b. Collective analysis*

The public presentation of the result of the architectural studio, the **project**, and the public discussion which entails the criticism are part of the learning process. The student learns from the criticism, from the collaboration and the exchange of information and perspectives related to interculturality.

#### *c. Collaborative work*

The students have access through the Internet to multifunctional and intercultural instruction anywhere in the world. The traditional approach of the architectural studio which means the face-to-face dialogue between the student and the teacher, a type of communication centered on the unidirectional linear and subjective transmission teacher – student, is enriched by the additional source of information.

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<sup>21</sup> Dr. Nouredine Zemmouri, Mrs. Malika Zemmouri, Ddepartment of Architecture, Biskra University, Algeria, *Virtual Architectural studio, new ways of practicing architecture and collaborative education*. 'Perspectives on scientific and technological research in the Arab world' - Damascus, SR04, WdA2 - 351

Distance learning should also be mentioned under the form of online courses, which is not the object of this paper. The purpose of this paper is to highlight the need of the exchange of knowledge at the interdisciplinary and intercultural level enabled by the new technologies of information and communications. The Internet as a medium of facilitating continuous learning and improving competences in architectural education is associated to learning within the formal institutional framework and cannot replace the traditional architectural education.

In conclusion, the information age brings about change in all the aspects of life including in education and in architectural education, in particular. The computers, the software, the technology of information and the Internet are key concepts in modern designing. Both traditional education and distance education are the beneficiaries of the new technology. The virtual architectural studio is a tool of promotion of collective-inductive learning, the Internet-based instruction enable learning outside the institutions, the classrooms, i.e. the architectural studios. The sites are the parallel, virtual bookshop which complete and enrich in point of images the resources of the student architect.

### **Architectural studio vs virtual architectural studio**

The **architecture design studio** is at the center of architectural education. The term 'studio' is defined in the Webster's Dictionary (1993) as '*a studio where the art and architectural studio get instruction, an artist studio, where several apprentices contribute to the execution of a work that bears the signature of a master*'. The current meaning of this term refers to the master-apprentice relationship as a traditional learning method mediated by a university background.

According to Ioan Cerghit's classification of the teaching methods in 'Teaching methods' (Polirom, 2006) and applying it to architectural education, the following aspects may be highlighted: the current university architectural education includes traditional instruction methods, of *expositive oral communication* of the lecture type, written, of the textbook type which aims at pointing out the theoretical information, the *direct exploration methods* of the type of the case study or *indirect* of the modeling type, the graphic demonstration or images. For the architectural studio we mean real action methods of the type of projects.

This paper aims at a parallel between the **face-to-face traditional studio** and a modern approach which enriches the architectural education and does not replace it, the **virtual architectural studio** based on the Internet as a means of communication and transmission of information. It is a parallel between a **real action method**, of active participation, of formal learning by practical works and studio projects applied in a real context and a real physical space and a **rationing method**, of the *e-Learning* computer-assisted instruction type, which can be called the virtual architectural studio, occurring in a virtual medium, in a parallel reality. The advisability of applying this method, the benefits, the difficulties and ways of application will be analyzed below in comparison with the traditional instruction method.

The current architectural education includes a theoretical field based on courses in various fields with a close relationship with the field of architecture, information that are supposed to be applied in the architectural studio by the study of a real problem in the context of a designing theme

which defines the parameters of the work, the location context, the functions etc. The competences acquired by the student at the courses per various specialties are supposed to be applied.

### **The Traditional Studio: a formal framework for the architectural education**

#### ***Brief History***

##### *Scoala de Arte Frumoase (The Arts School) 1819-1914*

The studios of the Arts School in Paris are at the basis of nowadays architectural education. The '*learning by doing*' method exceeded the lecture as the primary learning method in architecture. The method is based on the *mentor (professor)-student* relation, a linear, unidirectional and most of the times subjective relation, of transmission of information. Every project in the studio, at the Arts School, the steps that are still maintained starting from the placement of the students in groups guided by the professor-architect. The steps of the project have always been the following: launching the designing theme, drafting the solution by the student under the guidance of the professor and in the end the assessment of the work by a specialized jury.

There was a tradition in the senior students' guiding the junior students and there used to be monthly competitions: *Concours mensuels d'emulation* where the students were obliged to participate at least twice a month, otherwise risking school expulsion. The assessment was secret, the students were not informed on how they were given the grade.

##### *Bauhaus, Germany 1919-1932*

Walter Gropius set up the Bauhaus school, a new concept centered on the architecture studio. The school became the most important between the two world wars.

At first, Bauhaus laid stress on the trades supporting a holistic education which should combine the attributes of the arts, such as painting, sculpture, architecture in a whole.

The students used to be apprentices or journeymen, thus correlating school activity with the activity of the private architectural studios. The apprentices were instructed by masters each representing art partially getting both theoretical and technical and creative information.

Johannes Itten established the course of apprentice training who would participate in the Bauhaus studios, a concept still in use.

##### *Nowadays architectural studio*

Professor Donald Schon, a specialist in urban planning and education at MIT (USA) is a remarkable figure in the study of architectural studios these last thirty years.<sup>22</sup>

The studios are organized around the *learning by doing* concept, with reflection at the basis of the designing process and implying a package of previous knowledge. In the studio periodical

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<sup>22</sup> Ouita Broadfoot, Rick Bennett, 'The Architecture Studios: Online?' Comparing the traditional architectural studio with the modern Internet-based studio. COFA, The University of New South Wales.

meetings between the professor and the student occur. The information passes from the professor to the student and is filtered by the professor who explains by means of discourse, oral communication and demonstration (drawing) to the student how to explore the theme. The method of oral communication is at the basis of the architecture studio between the student and the professor, student and student, student and project and between the student and the society that the project refers to.

### The Virtual Architectural Studio

We have seen so far the ways in which information technology and communications (ICT) may influence the architectural education. The Internet facilitates by its visual, imaging descriptive means and the information storage potential (virtual bookshop) the proliferation of information in various educational media. The interdisciplinary and intercultural collaboration is also enabled by means of the virtual collaboration medium which erases the ethnic, cultural differences, the physical and geographical distances, the time zone differences, allowing worldwide collaboration in real time.

The virtual architectural studio is an exercise which stimulates creativity, increases the sense of community, the interest for the problems of society, increases and satisfies the need for knowledge overcoming the language, geographical, cultural or political barriers. This implies a community in comparison with the traditional face-to-face way of transmitting information.

The online studios are seen in various studies as an alternative to the traditional architectural studio. The virtual architecture studio is a way of improving knowledge, it is an exercise aiming at the completion of the knowledge acquired during academic education.

The concept refers to a network of studios placed in time and space, with the participants in various locations and communication and the design process are computer-mediated.<sup>23</sup>

Communication in the online studio may be classified in: *synchronous* and *asynchronous*, which refers to the work of several architects at different parts or stages of the project without the simultaneous presence of another participant to the project. The e-mail and the FPT (file transfer protocol) enables the asynchronous collaboration. The synchronous communication implies the simultaneous participation to the project and is mediated by video means (video-conferences) and 'chat rooms'.

Collaboration in the online studio, according to Maher's study, may be divided in two extremes of division of the designing tasks'.<sup>24</sup>

- *single task collaboration*: every participant has his/her own opinion on how to approach the project and the result is a product made by mutual agreement
  - *multiple task collaboration*: every participant is responsible for a part of the project
- Wojtowicz<sup>25</sup> defines the current forms of the collaborative models in the online medium
- asynchronous collaboration without purposes shared by all the participants

<sup>23</sup> Ouita Broadfoot, Rick Bennett, 'The Architectural Studios: Online? Comparing the traditional face-to-face architecture studio with the Internet-based studio', COFA, The University of New South Wales

<sup>24</sup> Maher M.L., Simoff S, Cicognani A., (1996), 'The Current Potential and Limitations in the Virtual Design Studio', <http://www.arch.usyd.edu.au/~mary/VDSjournal/#pote>

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- the students communicate with the clients/organizations
- the students of several universities collaborate at one project
- the individual project with a group chosen for designing
- the virtual studio abroad: the students work on sites in the participating countries and the collaboration consists in the intercultural exchange resulting from the context.

Other characteristics which distinguish the online studios include the following: duration (between 4 hours and 16 weeks), distance (geographical, cultural, technological), *media, infrastructure, the design theme*. The design theme may be just like in the case of the traditional studio simple, conceptual or complex, at a large scale.

Professor Thomas Kvan, Hong Kong University, thinks that architecture education should focus on the process. He maintains that face-to-face education lacks an essential thing, i.e. 'deliberation', which focuses on the final object.

'The student remembers only the objections received at the final analysis of the project and not the whole journey and the lessons learned. In order to prevent that we should introduce deliberation and build it in our teaching methods'.<sup>26</sup>

A second approach of the professor aims at collaboration: 'a collaborative experience is an essential part of the learning experience, one which makes the student understand how to explore and learn together in the design process without the dominance of an individual.'

Mutual knowledge is important in the process of collaboration, which in the virtual environment under the form of an online studio is the most difficult to achieve due to geographical distance and the limited resources of time.

### **Conditions of the efficiency of the architectural studio**

The research of professors Schon and Kvan briefly presented above show that there are four essential conditions for an efficient architectural studio:

- **learning by doing** should be a central concept of the studio. A real problem needs a coherent answer in real time,
- **one-on-one dialogue**, between the student and the professor is considered essential and may take the form of the periodical revisions of the project (corrections). This dialogue may take place in real time in the architectural studio (face to face) or in the online environment mediated by the Internet (e-mail, chat).
- a context of **collaboration** in the teaching-learning process is essential and this may be achieved by the trust between the members both in the real and in the virtual medium
- the **process orientation** is an essential concept in the learning process by doing, making errors, during the design process and not from the final revision.

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<sup>26</sup> Kvan, T., (2001a), 'The Issue in Studio Instruction – Reviewing the pedagogy of the Architectural Studio', ACAE Conference on 'architectural education', Milton Tan (ed), Center for Advanced Architectural Studies, National University of Singapore, 2001



### Advantages of the online studio

- *student motivation*: creative and explorative in the process of learning, in particular where there is no reward by grading and the studio is not compulsory. The motivation of the participant may derive from his search for knowledge, information, learning and directly by offering rewards at the end of the studio class – architecture contest
- *mastering the electronic means and techniques of communication* and etiquette on electronic collaboration
- *developing a library of the project*, from the stage of documentation to the registration of the stages of the project, with the due critiques
- *synchronous communication* stimulates the sense of presence and collaboration between the students or the students and professors
- the design process becomes more attractive by interaction and socialization
- the possibility of working depending on the spare time and project *phasing*
- *collaborative learning* is encouraged not by the dominance criteria of one of the participants, without ego, embarrassment or authority
- *socialization* between the participants favoured by customized discussions
- *interdisciplinarity and interculturality* as advantages in the context of globalization and the need for constant improvement of the knowledge to be able to cope with the rapid changes in the line of architecture and technology

**Difficulties in the virtual architectural studio class** (adaptation after Jeffrey Hou: ‘*The global studio: an experiment in the virtual and real online collaboration*’  
[http://193.25.34.143/studiengaenge/mla\\_fl/conf/pdf/conf2004/31\\_hou-c.pdf](http://193.25.34.143/studiengaenge/mla_fl/conf/pdf/conf2004/31_hou-c.pdf))

The issue is of communication and representation in a virtual architecture studio ‘without paper’. In spite of the obvious benefits of the interdisciplinary and intercultural collaboration, various barriers must be overcome for the project to be successful.

In the process of collaboration in the online studio on the theme of a real project the following difficulties must be considered:

- the **language barriers**, with the main difficulty in the process of online collaboration translating in communication delays, loss of information or misinterpretations. The image methods may be preferred as means of communication, diagrams instead of long e-mails. But the images may also reflect only partially real life based on the subjectivism of the selector as being representative...
- **asynchronous communication** may delay both the process of communication and of creation. A concrete and strategic phasing of the project may overcome this inconvenience due to the fact that several participants are working at different moments in time at this project. Accurate coordinates of completion of a stage should be specified and concrete conditions should be phrased. The carrying on of



the design process should be followed step-by-step by the coordinators and the schedule of events should be strictly observed.

- **real-life experience on the location:** the major difference between the face-to-face and online collaboration. Not knowing well the location by real physical experience may be an inconvenience in the design process although from another point of view it might release the student from constraints that might reflect in the process of creation. This inconvenience may be remedied despite of the geographical distances by technological means of the type of the virtual conveyance of images from the location.
- **lack of face-to-face interaction** is an obvious disadvantage in this context of the online studio
- **technological problems**, as for example the rate of data transmission or connections, the information media that every participant has may appear and cause difficulties in the development of the project resulting in periods of stagnation
- **cultural and religious barriers:** every student is instructed traditionally in accordance with the local cultural and religious values. In a context of cultural collaboration, this may be interpreted as a barrier or on the contrary as a means of augmentation of the spheres of knowledge.

But in order to carry on such a project online, all the participants should be short-listed in accordance with every one's knowledge in the line of computer-assisted design. Besides the communication media such as: videoconferences, internet publication, e-mail, the students' skills of using the modeling or image processing software should be added.

## Conclusions

Reviewing the stages of assimilation of the new information and communication technology in the line of architectural education:

The *first step* with the development of the new technologies was their inclusion in the design process as a supporting tool for the computer-based projects (*paperless design studio*). The design process has been improved by means of the 2D and 3D modeling programs by shortening the design time and most of the times by the higher quality of the presentation. This stage uses the technological means as stand-alone tools.

The virtual architectural studio, the *next step*, promotes the collaboration in time and space, and the technology of information and communication (ICT) is the medium of such collaboration.

The *next step* might aim at another level of collaboration by means of ICT as a means of integration of information, by the capacity of information storage and conveyance, as a support of the decisions and of the design process. Considering that we are in a permanent changing process it is difficult to foresee the future form of the collaboration between the individual and the new technologies, between the architect and the virtual space which opens multiple opportunities both as a support for design and for collaboration. We may speak of the virtual space as a parallel world (*second life*) where the student lives, designs, builds and assesses or is assessed. The metaphors of building the

architectural projects in the virtual medium reflect the advantages of this medium for the traditional architectural education.

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## THE “QUALITY SERVICES” VECTOR - A PERFORMANCE SOURCE FOR THE BANKS IN ROMANIA

Ph.D. Drăgoi Violeta<sup>1</sup>, Ph.D. Constantinescu Lucreția Mariana<sup>2</sup>

<sup>1)</sup> Finance and Accounting Department,

<sup>2)</sup> Management-Marketing Department

Valahia University

Str. It. Ion Stancu, nr. 34, Târgoviște cod 130105

E-mail: [violeta\\_dragoi@yahoo.com](mailto:violeta_dragoi@yahoo.com); [maraluconstantinescu@yahoo.com](mailto:maraluconstantinescu@yahoo.com)

### Abstract

*The financial and banking services are offered by the banks to their customers reflect, in their essence, the character of the process oriented through the market and the customer.*

*The quality of the procedural elements - the contact personnel (human resources), the physical support of the benefit, the resulted service and the customer relationship management - is a vector, which can contribute to the market performance of the companies in the banking sector, and, at the same time, a vector of satisfaction for their customers. To distance itself from the competitors, each banking company must have a number of possibilities, facilities and specific advantages.*

*Our paper highlights the benefits of implementing the quality management system oriented toward the customer in the banking services, which focuses the firm's marketing actions towards the customer satisfaction and loyalty, integrating the “quality” vector in the potential success of the companies on the banking market in Romania.*

**Key words:** total quality, quality management system, customer satisfaction, customer loyalty, customer relationship management, marketing strategies, organizational performance

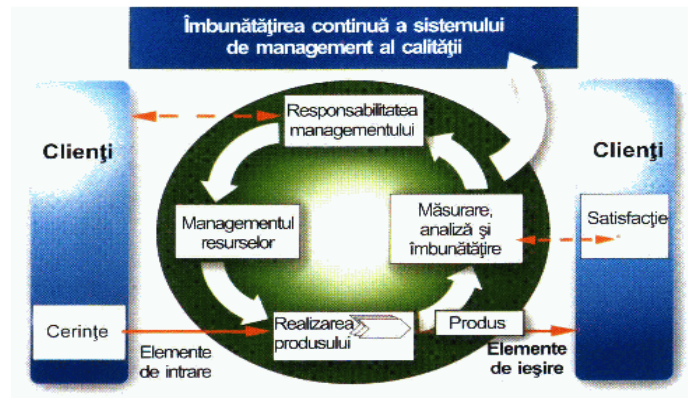
**JEL Classification:** D53; M10; M21; E44; G11; L15; L25

### Introduction

While the economy and society is developed, the relationship between the banks and the customer has evolved rapidly. There was no need only of the banks responsiveness to the customer requests, considering the range of the products and services required, but, to a greater extent, there was focus on studying the development of market trends, and, in this context, on the diversification of the bank supplies which anticipates the customer needs.

For the moment, the customer represents the only source of income, and an economic development for the credit institution future, appreciating that a good customer is one that assures more profit for the lower resource consumption.

In the international standards ISO, the *service* is defined as “**the result of some performed activities by a service provider, so that to satisfy the customer needs both client- provider interface and the provider's internal affairs**” (see Figure 1)



Whatever their nature, the services are the results of the materialized undertaking efforts.

Taken as a whole, the process of the service creation and delivery is a management and marketing process, which includes three groups of the partial processes in its area, approached separately and being in interaction (Olteanu Valerică, 2003, p. 16):

- **Offered services** - services that are to be created, delivered and presented to the customers when they request their needs;
- **Created and delivered services** - the result is the actual service requested by the customer under the previous processes. The correlation between the promised and the expected services by the consumer / client is essential;
- **Internal communication system** - ensures the proper connection between the offered services and those related to the created and delivered services.

Management or the customer relationship management is a strategic stake for the banking institution managers because it can lead to the increase of the turnover and the performance of the credit institutions, contrary to the previous strategies, which referred mainly to reduce the costs or to increase the productivity (Cetină Iuliana, 2006 p.33)

#### **Factors loyalty customer loyalty towards the banking companies**

An effective customer relationship management (CRM) involves the development of an organizational culture that has the customer in its centre.

*The orientation of the organization toward the customer* is due by the influences of the following factors (Cole, RE, 2001, p. 7-21):

- Growing the consumer demands forces the organization to adapt their products/ services to respond to them;
- The buyers evaluate the changes, consider beneficially and begin to expect them from all the organizations;
- The competitors introduce the improvements to catch up or exceed the innovative organization;
- The customers get used to the offer and begin to expect ever higher.

These practices are not out of reach of any organization, making it difficult to be adopted by the SMEs, which do not have the sufficient resources, infrastructure, and the customers are not always willing to give information.

To have success on the internal and the external market, the financial companies should be focused on understanding and satisfying the needs and expectations of the current customers but also any of the potential ones. The needs and expectations of the customers or of the beneficiaries can include, for example, the product/service compliance, its performance, the method of delivery, post-delivery activities, prices and operating costs, the product safety, liability against the product, environmental impact, etc. (I. Cetină, R. Brandabur, M. Constantinescu, 2008, p.253)

Given the current competitive environment, more and more businesses establish their lines of action that, in terms of the customer orientation, as: (Carmen Păunescu, 2006, p. 113)

- ensuring the flexibility and rapidity of the response to the market opportunities;
- understanding the needs and expectations of the current and potential customers;
- assessing the customers satisfaction and ensuring the loyalty of the important customers;
- Improving the internal and external relational system and creating the partnerships with the loyal customers.

The evaluation and the monitoring of the customer satisfaction is an essential management tool of the company and it is based on the analysis of information about the customer relationship. Sources of information about the customer satisfaction may include the customer complaints/the final user, the direct interviews, questionnaires and surveys, the market researches, reports from various media sources, sector and industrial studies. The application process, evaluation and monitoring of the feedback from the customers regarding their satisfaction provide to the banking company a valuable database that can ensure the establishment of some actions to improve the customer relations and increasing their satisfaction.

CRM involves the identification and analysis of the customer needs and behaviour so that to develop a healthy relationship with them.

In the banking activity it is important that any official to understand the needs and the requirements for both the current customers and for the potential, so that to allow their satisfaction and to build strong and lasting ties with them.

Through the nature of the financial companies and in the context of the current competition, their orientation becomes necessary to maintain existing customers first, a goal achievable through fulfilment of the customer satisfaction requirements and only then to attract new ones. This condition was imposed as a result of findings related to the much higher cost of attracting new customers compared with those of maintaining existing customers. Therefore, in any financial company to maintain the customers is an important goal of the company's marketing strategy.

The result is the trend of the financial institutions to orient towards *the related services* (called as the continuous-type services), which involve building of a lasting relationship with the financial providing company (as it is the current account) at the expense of the *individual services* (called "one once" services), which do not imply, necessarily, a time continuity relationship of the customer with the bank. (e.g. the exchange rate).

As a result of the need to strengthen the relationship with customers the fact that each has its role to play is becoming increasingly obvious and the quality of the provided services must be of the highest standard to ensure the continuity of the relations with them.

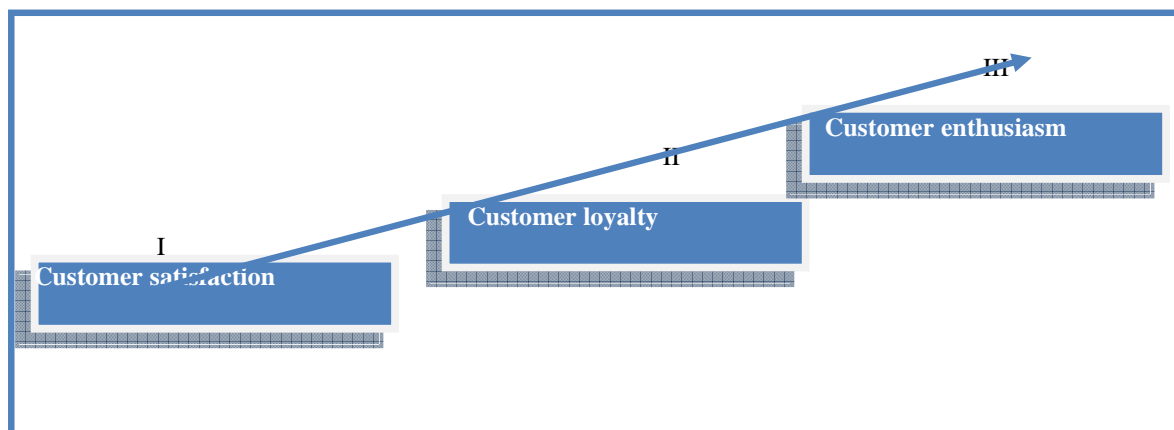
The quality of the financial and banking services is influenced by the:

- knowledge, interpersonal skills, motivation and personality of the person providing the service;
- circumstances in which the service is provided;
- The customer perception and character who is receiving the service;
- responsibility of the confidentiality that relates to the importance of the business management, the customer protection and financial advice;

- Two-way flow of information (customer-bank), which leads to obtaining the information about the current operations of the customers, being able to determine the cross-selling opportunities.

**The loyal customers are a source of the competitive advantage of a banking company** because they are a part of the inaccessible market to the competitors, if they are managed effectively. (Olaru Adriana, 2002, p.67)

A few decades ago, the customer satisfaction represented the premise of an effective marketing. However, it was noted that they easily migrate from one manufacturer to another, which required the customer loyalty through the various activities and marketing programs, designed on the basis of giving the same benefits such as promotional offers, discounts, loyalty cards etc. Lately, more and more strategies are imposed which lead to the customer enthusiasm, which can be determined by the customized offers, which generate its submission in its reference groups. (see Figure 2)



**Figure 2:** Approach the customers in terms of CRM  
Source: Căpățina, Alexandru, 2006, p. 5.

Making the customer relationship is a long process. There are several stages in the development of the long-term relationships with customers. On the scale basis there are the potential customers, or in other words, the target market. Through the marketing companies, the firms struggle to turn them into the customers. In this model, an occasional customer is a customer who is prone to easily migrate to the competitors' offerings. The constant customers are those who maintain the business relationships with the organizations on a regular basis, being satisfied by the quality of the purchased products or services. By implementing the strategies of the relationship management with the customers, the organizations turn the customers into supporters, and the force of the relationship becomes evident and the customers have a strong attachment to the brand, making its promoters, who recommends their loyalty brands to their reference groups. Free advertising made by the promoters has, in many cases, a stronger effect over the potential customers than the traditional promotional techniques. The last step of the scale is that when the customers are identified with the partners' concept, the companies seeking the long term mutual benefits, in the customers relationships.

*The establishment of the sustainable partnerships between organizations and their customers is the result of applying the "win - win business strategies."*

The battle for attracting and retaining the customers is very intense. From an economic perspective, the banking companies have learned that it is less expensive to keep a customer than to find a new one. The most common known statistics says: "according to the Pareto Principle - 20% of the organization customers

*generate 80% profit, or, as **80% of the effects are generated by 20% of cases**" - for banks would mean that 80% of the incomes are generated by 20% of customers or 80% of business is done with 20% of customers (Koch, Richard, 2003, p. 86)*

If it is applied correctly, **the customer relationship management generates a significant number of facilities and advantages such as:**

- promote the individual private customer, instead of appealing to broad segments;
- improves the selection of the target audience;
- allow the customer profitability evaluation as individuals and as the consumers segments;
- allow the companies to compete through the service, not through the price;
- allow to measure in detail the effectiveness of companies;
- prevents the customers overestimation without the perspective and underestimation of the customers with potential;
- through a better communication with the customers, increase their loyalty;
- improving the organization's ability to retain and attract the customers;
- strengthen the relationships with each customer (increasing the number of sold products);
- Improve the services without increasing costs.

Some of these can be measured, others not.

Fortunately, the technology development has provided the integrated systems in which the large amounts of data can be collected and processed, and those companies willing to invest in technology can deal once again individually with the customers, and not with the mass consumer segment.

The secret lies in creating some brands to listen and learn from the consumers and in the ongoing effort to build relationships, not transactions. That involves providing information that has unique value for the customers, based on the information they have disclosed on their turn. This is the essence of the customer relationship management<sup>27</sup>.

The customer is the most obvious barometer of the bank progress. The presence of a number of increasingly large number of companies or individuals to the bank counters confirms the quality of the bank services, while migration of the same customers to others is a proof of the weakness of the unit.

In the narrow sense, a customer is defined as a legal or an individual person, having one or more accounts opened in the bank's records, a clear name, a headquarter or domicile and an address clearly defined, a legal status which constantly and frequently appealing to the banking products and services to satisfy their needs and producing the economic effects on the bank.

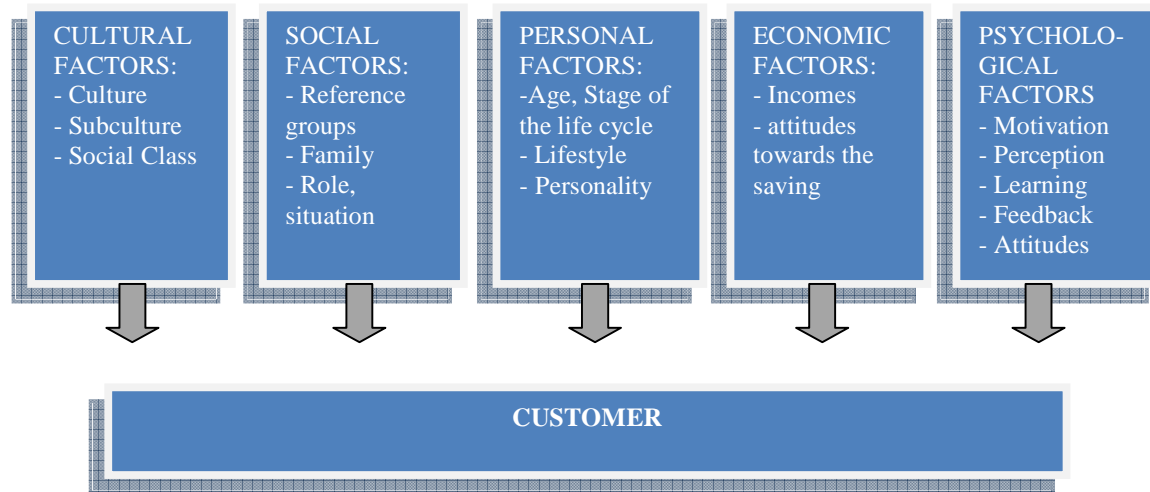
**The factors that influencing the are customers consumption behaviour** (as purchaser) in their relationship with the bank are: the confidence in the banking system; accessibility of the services acquisition; bank's reputation, product and services range and their quality, the perceived value of the services, a bank easily tracing; the ability to satisfy the needs of the banking and financial services and a friendly and capable staff.

The purchasing behaviour of the individuals and organizations is influenced by the different factors, so it is important to be analyzed separately.

Briefly, **the factors that can influence the "individual" buyers' behaviour** are shown by Figure 3.

<sup>27</sup> [http://www.uvvg.ro/studia/economice/index.php?categoryid=10&p2\\_articleid=70&p142\\_dis=3&p142\\_template=Default](http://www.uvvg.ro/studia/economice/index.php?categoryid=10&p2_articleid=70&p142_dis=3&p142_template=Default)  
[It.](#)





**Figure 3:** The influence factors of the customers purchasing behaviour as the "individual" (Source: Olteanu, Alexandru, 2004, p. 89.)

***The legal persons have the following characteristics in their buying behaviour:***

- The commercial customer needs are usually much more complex than a person and so much more different than satisfied;
- Certain types of customers require special treatment;
- The successful relationships with the customer-legal person can be difficult to build and expensive to maintain;
- The commercial customer asks the bank to have general knowledge about the sector activity where it acts and the specific knowledge about his own business.

However, for many small businesses, the accounting is held by the individuals, so the personal factors will probably have a greater influence in their decisions than in the interests of the business. It is important and the attitude of the people in the larger organizations is not ignored because they can influence the bank holding the account and where the services are obtained. The two categories of customers (legal persons and individuals) have different needs and expectations (see Table 1).

***The customers of the banks are also beneficiaries of the banking products and services on both sides of the bank balance, and on the other hand there are directly or indirectly, the preferred resource providers of the banks and suppliers of its income as a result of the investments in loans.***

Because the bank develops a retail activity it should behave just like all other retailers, focusing their efforts on finding ways to win customers, on maintaining and maximizing the profitability of each of them - all these in addition to optimizing the costs product and the customer contact channels. Having and the corporate activity, they must quickly find the personalized financial solutions to each type of customer on which they are ready to change them in a flexible manner for other customers.



**Table 1:** Elements that distinguish the banking services to individuals / legal persons

	Services	Costs involved
<b>Individuals</b>	<ul style="list-style-type: none"> <li>- advice for managing their own finances;</li> </ul>	<ul style="list-style-type: none"> <li>- high administration costs for the bank;</li> <li>- extensive network of the units;</li> <li>- long-term resources to cope with the credit needs of the individuals in many fields (durable goods, housing, modernization , etc.).</li> </ul>
<b>Legal persons</b>	<ul style="list-style-type: none"> <li>- advice on preparing the business plans;</li> <li>- adequate services to solve the business needs;</li> <li>- money transfer services;</li> <li>- collecting and transporting safely the cash;</li> <li>- the scheduled payments, etc.</li> </ul>	<ul style="list-style-type: none"> <li>- qualified and experienced staff in the financial structuring;</li> <li>- investment credits, evaluations of the movable property / property assessment, international trade, cash management;</li> <li>- a developed network of the correspondent banks to support customer needs with the foreign trade activity.</li> </ul>

The relation between the customer and the bank is “a systematic approach across the banks.” The consumers have their preferences for banking services, a statement valid both for the individuals and the legal people’s corporate customers; they need constant attention from the bank. Thus, the customer relationships managers must be in permanent contact with them, to advise them so that to know their progress, problems and provide more services. After gaining a client, the bank is interested in maintaining and optimizing the customer contributed income during their relationship. The bank intends to actively develop a long term relationship with its customers based on mutual trust. In a relationship based on trust, the customers are tempted to make decisions in the context of the products and services offered received over the years from the banks and not to use the single transaction. (Titus V. Chirca, 2006, p.162).

In the financial and banking system, the product is provided by several institutions in competition, though, essentially it is the same. The customer chooses the bank based on personal preferences which often are not directly related to its product. The bank may retain the best of its customers using the concept “customer care”, so achieving the best service on the market.

Consequently, the orientation of the institutions in these markets is rather to the customers and not to the product. This approach is best summarized in the statement “*The customer comes first!*” which is equivalent with *the recognition of the customer needs as supreme*, because without the customers there would not be the banks.

The bank customers wish a higher quality of services and a wide range of products. For any bank, it is vital that the products and services that are offered to be successfully presented to the market, to achieve the objectives of growth and development of the bank and implicitly, the financial and banking sector.

*The relationship “customer-bank”* is very important because “*its quality is a fundamental condition of a bank progress*” and needs to be maintained to ensure the customer loyalty and develop the long term relationships with them. Attracting new customers can be more expensive than maintaining the existing ones, keeping the existing customers fund is an important customers’ management. This relationship is a key

element of the bank's offer, as a component of the total product and services. (Lavinia M. Nețoiu, *Bank Management*, university manual, Universitaria Publishing House, Craiova, 2006, p.183)

*The key to maintaining the bank-customer relationship is to keep customers satisfied.* If a customer is satisfied, he will want to stay in relationship with the bank, will use increasingly more services to satisfy their needs and recommend the bank to others (Table 2).

Contact Type	Sources of the consumer satisfaction (Feedback)	Sources of consumer dissatisfaction (Disagreements)
<b>Counter bank agency</b>	Human contact (65%)	Slowness (47%)
	Flexibility (12%)	Lack of the discretion (32%)
	Knowing the contact person (9%)	Unpleasant (6%)
	Agreeable (9%)	
	Rapidity (9%)	
	Trust (5%)	
	Competence (5%)	
<b>Fax</b>	Rapidity (51%)	Lack of the human contact (23%)
	Ease (10%)	Expensive (18%)
	Avoiding the movement (8%)	Possible errors / lack of the evidence (5%)
	Control-evidence (6%)	
	Availability (time and place) (5%)	
<b>Meeting home</b>	Human contact (41%)	Slowness (11%)
	Flexibility (15%)	Dependence (10%)
	Discretion (14%)	Disagreeable (10%)
	Avoiding the movement (10%)	Lack of discretion (7%)
	Agreeable (7%)	
	Ease (7%)	
	Trust (7%)	

**Table 2:** Sources of satisfaction / dissatisfaction for the bank customers

Source: Survey & Action Institute for the Consumer Research and Analysis of Communication

*The long-term loyal customers are those who will ensure the development bank, they do not want to work with the bank competitors for similar services, although, sometimes, the competitors will offer cheaper services or more attractive interest rates. The customer loyalty improves a bank's image and can be an excellent source for the bank reputation.*

For many banking services, the contact staff is the main source of providing customer satisfaction because it is the essence of the delivery process. He also plays an important role in promoting the banking services, in building and maintaining the sustainable and profitable relationships with customers.

It is obvious that the staff represent the providing company beside the consumers. In the relationship with the customer, the bank employee must also be a consultant, negotiator, a seller and a coordinator.

It should be noted that under the impact of the technology, the banking market grows significantly through diversification of the banking services (cards, electronic banking services, home banking, are just a

few examples) are increasingly suggesting that the bank of the future would be represented by an electronic and automated bank.

The recent research undertaken by the Survey & Analysis Institute for Consumer Research and Action of Communication, in order to determine the consumer preferences regarding the means of contact with the bank have only 22% of the European consumers banking and consider the online banking system very important and they use it. The reason that over 60% of respondents said that online activities do not bring satisfaction was lack of human contact. The customers wish to apply for the economic assistance to be helped by the real people, who create a greater sense of security than using an electronic terminal, fax or phone.

The study results show that people are followers of the human contact in the banking institutions as they give them a sense of deeper and more empathetic participation in the bank.

Analyzing the answers of the interviewed respondents and presented to Table 2 we note *that the presence of the human contact is specified for each type of contact established between the customer and the bank, whether it is a matter of satisfaction (or a guarantee of providing a quality service) or a source of dissatisfaction when they use the modern methods such as fax.*

In our opinion, among **the reasons why consumers prefer the contact with the bank employees, are part of the following**: the banking customers wish to receive the explanations about the causes of a problem and also to be told exactly when they will solve the problem, also they expect to be contacted promptly when a problem has been resolved, the customers want to be given permission to speak with a qualified person whenever so required; while consumers claim to be offered viable alternative when a problem cannot be resolved, they expect to be informed on how to prevent potential problems.

Developing the services and banking activities are a major concern for the bank management, which is in a continuous process.

*The main premise conditions* which led to the **diversification of banking products and services** are: the dynamic growth of the financial sector in the developed countries, particularly the banking, liberalization and universalization of the banking activity, the appearance and development of a large number of non-bank institutions, which create and enhance the competition on the banks' market, increasing competition between banks and non-banking institutions in the process of the market development, the technology modernization, diversification of the banking industry, extending the activities of the financial - credit institutions and the market penetration on the foreign banks. (Ilie Mihai, 2007, p. 62)

The cash services still play an important role in the economy of any country, more or less developed, although, now, its main function - the payment instrument - is limited, and that of the store of the value has disappeared almost completely.

In Romania, during 2009, there was a (-5.2%) loss of cash compared to 2008 and in May 2010 an increase of 5.7% was recorded over the same period of an earlier year. (Table 3)

**Table 3:** Evolution of the cash in circulation in Romania between 2008 -2010

31.12.2008 (mil. RON)	December2008/ December 2007 (%)	31.12.2009 (mil. RON)	December 2009/ December 2008 (%)	31.05.2010 (mil. RON)	May 2010/ May 2009 (%)
25 313.8	18.1	23 973	-5.2	25 542.8	5.7

Source: [www.bnr.ro](http://www.bnr.ro)

During 2008, through payments to the credit institutions, 842 million banknotes and 368 million coins were put into circulation, worth 26.112 million RON, amounting to about 30% higher than that recorded in 2007. With earnings from the credit institutions were returned to the Central Bank of Romania 936 million banknotes, 11% more than those put into circulation in 2008 and 28 million coins, representing 7.6% of the number of coins issued in payments. (Romania National Bank Annual Report, 2008, p.84-84)

According to the values provided by the banks that participated in the study, the number of the customers online banking services in Romania increased by 66% in 2009 over the previous year to nearly 2 million. (Table 4)

**Table 4:** The customers enrolled in the Internet banking services in Romania in 2009

No.	Credit Institution	Total number of customers in 2008	Total number of customers in 2009	Growth Rate 2008/2009 (%)
1.	BCR	438000	741650	69
2.	Raiffeisen Bank Romania	168458	305194	81
3.	BRD Groupe Société Générale	180900	272500	51
4.	ING Bank Romania	163100	263650	62
5.	Transilvania Bank	70000	110000	57
6.	UniCredit Tîriac Bank	50459	81346	61
7.	Volksbank Romania	22371	38630	73
8.	Alpha Bank Romania	29000	37000	28
9.	Bancpost	22593	33158	47
10.	GarantiBank Romania	5209	28228	442
11.	Otp Bank Romania	14000	18000	29
12.	Intesa Sanpaolo Romania	3814	11112	191
13.	Piraeus Bank Romania	6800	9100	34
14.	Credit Europe Bank	6691	8481	27
15.	Leumi Bank	4076	4890	20
16.	Bank of Cyprus	1109	2067	86
17.	RIB	249	1787	618
18.	Libra Bank	872	967	11
19.	ATE Bank Romania	159	673	323
	Total	1187860	1958433	66

Source: Survey & Action Institute for Consumer Research and Analysis of Communication

The analysis performed by the eFinance review that included 19 Romanian banks participated, highlights that they hold together over 80% of assets in the Romanian banking system and show that BCR has the largest number of the customers to the Internet banking services (over 740,000 customers), increasing approximately 70% compared to 2008. (Table 5)

Launched in the middle of 2008, the Click 24 BCR platform (the eBCR successor service) has been widely promoted by the Bank among its customers, and last year the service was extended to the small businesses and to the individuals authorized customers. A very quickly advance was noticed at the Garanti Bank, an institution which has launched its online banking service since 2007, but, last year (2009) reached the maturity, ranging from 5,000 to nearly 30,000 customers, based on an aggressive strategy growth in the retail bank. Among the new entrants on the market, the fastest growth came from the RIB (618%), which added to

approximately 1,500 new customers of the Internet banking services.

**Table 5:** The customer persons - beneficiaries of the Internet Banking Service

No.	Credit Institution	Number of the individuals customers in 2008	Number of the individuals customers in 2009	Growth Rate 2008/2009 (%)
1.	BCR	438000	741650	69
2.	Raiffeisen Bank Romania	145092	272079	88
3.	ING Bank Romania	160000	260000	63
4.	BRD Groupe Société Générale	163000	250000	53
5.	Transilvania Bank	50000	85000	70

Source: [www.efinance.ro](http://www.efinance.ro)

The largest number of the customers on the Internet banking services is recorded by the BCR, which reached more than 740,000 customers, up 70% over 2008. Launched in the middle of 2008, the Click 24 BCR platform (the eBCR successor service) has been widely promoted by the Bank among its customers, and last year the service was extended to the small businesses and to the individuals authorized customers. A very quick advance was noticed at the Garanti Bank, an institution which launched its online banking service in 2007, but, in 2009 reached the maturity, ranging from 5,000 to nearly 30,000 customers, based on an aggressive strategy growth in the retail bank. Among the new entrants on the market, the fastest growth came from the RIB (618%), which added to approximately 1,500 new customers of the Internet banking services.

The Romanian Commercial Bank ERSTE Group had the intention for 2010 to double the number of the internet banking customers by using a slogan and motto premise: **“Save time and money to your advantage.”** Therefore at the beginning of 2010 it returned to No. 1 in the rankings charges for Internet banking transactions which is reduced by 75% after the end of 2009 was dethroned by ING Bank Romania.

**Table 6:** The “legal persons” customers beneficiaries of the Internet Banking Service

No.	Credit Institution	Number of customers in 2008	Number of customers in 2009	Growth Rate 2008/2009 (%)
1.	UniCredit Ţiriac Bank	22372	34539	54
2.	Raiffeisen Bank Romania	23366	33115	42
3.	Transilvania Bank	20000	25000	25
4.	BRD Groupe Société Générale	17900	22500	26
5.	Bancpost	9465	13499	43

Source: [www.efinance.ro](http://www.efinance.ro)

For the year 2011 is expected to increase the number on both branches because it will put more emphasis on information and publicity ( see Table 7).

**Table 7:** Ranking of the banks in Romania after the volume of transactions made through the Internet Banking in 2009

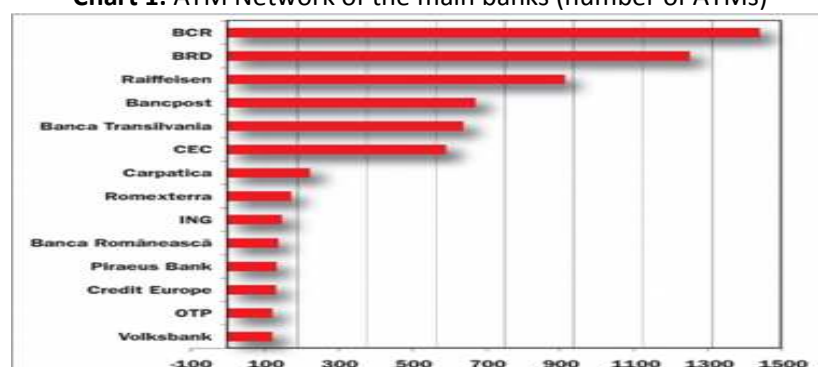
No.	Credit Institution	Total transactions in 2008	Total transactions in 2009	Growth Rate 2008/2009 (%)
1.	ING Bank Romania	4900000	7200000	47
2.	UniCredit Tiriatic Bank	6058895	4423453	-27
3.	Raiffeisen Bank Romania	1317365	2258372	71
4.	BRD Groupe Société Générale	1343000	2125000	58
5.	Transilvania Bank	1500000	2000000	33
6.	BCR	145000	1714000	1082
7.	Alpha Bank Romania	1200000	1400000	17
8.	Bancpost	302018	1016998	13
9.	Piraeus Bank Romania	325000	475000	46
10.	Credit Europe Bank	411868	464809	13
11.	Volksbank Romania	75541	200231	165
12.	Libra Bank	98299	145180	48
13.	GarantiBank Romania	23068	143094	520
14.	Leumi Bank	253777	138599	-45
15.	Intesa Sanpaolo Romania	92741	125527	35
16.	Bank of Cyprus	4564	33834	641
17.	RIB	2173	27041	1144
18.	ATE Bank Romania	2181	23248	966
	Total	18655490	23914386	28

Source: [www.bnr.ro](http://www.bnr.ro)

The Internet banking market is a most dynamic market and at the end of 2010 there were about three million users with an annual growth rate of over 200% for 2011.

Regarding the development of technology for the retail banking services in three sectors there have been great strides in the recent years: payment machines (ATM ), phone bank (*phone banking*) and the bank at home (*home banking*). These services were created both to ease operations and to attract customers. (see chart 1)

**Chart 1:** ATM Network of the main banks (number of ATMs)



Source : [www.sfin.ro](http://www.sfin.ro), Data in December 2008

The performances have recorded both the mature platforms, with several years of marketing and a broad base of customers who have had increases of over 50%, and the new services launched in the market during 2008, which also started as the reduced customer base and there have been explosive advances in 2009, by three figures, even over 600%. (Table 8)

**Table 8:** Value of transactions made in RON by the Internet Banking Platforms

No.	Credit Institution	Value traded in 2008 (mil. RON)	Value traded in 2009 (mil. RON)	Rate of growth of the traded value 2008/2009 (%)
1.	ING Bank Romania	60000.0	75000.0	25
2.	UniCredit Tiriatic Bank	76462.2	55011.1	-28
3.	BRD Groupe Société Générale	12061.0	23681.0	96
4.	Alpha Bank Romania	16000.0	18670.0	17
5.	Bancpost	11611.8	9954.7	-14
6.	Transilvania Bank	7000.0	9000.0	29
7.	Raiffeisen Bank Romania	3366.0	7131.8	112
8.	Credit Europe Bank	3332.0	3077.5	-8
9.	BCR	400.4	2458.3	514
10.	Volksbank Romania	906.2	1807.6	99
11.	Libra Bank	1041.2	1225.6	18
12.	Intesa Sanpaolo Romania	623.6	806.4	29
13.	GarantiBank Romania	127.4	742.9	483
14.	Leumi Bank	1259.4	585.2	-54
15.	Bank of Cyprus	85.2	271.7	219
16.	ATE Bank Romania	14.5	188.1	1059
17.	RIB	13.9	169.7	1118
	Total	194304.8	209781.6	8

Source: [www.efinance.ro](http://www.efinance.ro)

How smaller are the fees for the Internet banking transactions besides those collected at the counter?

- BCR: 75% discount
- BRD: 25% discount
- UniCredit Tiriatic Bank: 50% discount. Free intra-bank transactions.
- ING Bank: 60% discount. Free intra-bank transactions.
- Garanti Bank: 50% discount

Compared with the payments made from an ATM using the service through Internet Bankig the customer pays the same commission like those that are paid at the direct payment service from the ATM.

*The only advantage that is brought by this service is to reduce the time, because we all know that the main problem of the bills payment at the counter (both counter utilities and at the bank) is the time spent in line. The Remote Banking gaining more in a period in which the activity of the banks has suffered after the international financial crisis, being a modern way to attract and retain the customers.*



The banks reported increases of three figures on internet banking transactions offshore. BCR has a total of 10 million transactions in the first nine months of 2009 (using internet banking, and through the mobile banking), increasing 3.5 times compared to December 2008.

Total BRD-Net subscribers exceeded 225,000 at the end of September 2009, 40% of them accessing the service at least once a month, achieving 700,000 Internet banking transactions (transfers of accounts, transfers and payments to beneficiaries invoices). ING Bank had in late 2009, 230,000 private customers who use internet banking. Most of them are the active customers (they log at least once a month), and their number will increase by the end of the current year by about 25%.

### **Conclusions**

The quality is considered today a competitive advantage source for an organization, that determines the loyalty of their customers and employees; it provides the necessary force to the financial and banking sector companies to protect themselves from their competitors and increase the profits rise under the financial globalization process on the world markets.

**Total Quality** can provide as a set of the management principles that ensure the total dedication to the customer by the organization, when all business activities and all its employees are oriented towards the continuous improvement activities to satisfy the customer desires and expectations.

Total Quality in the banking sector implies obtaining the results of the organization focused on four key areas:

- ♦ **Customers are loyal.** They are more than satisfied by the company services because their needs were covered and the services were above their expectations.
- ♦ **Response times** to the customer needs and problems and opportunities arising have been minimal. Costs have also been minimized by eliminating some operations and activities which do not bring value to the customers;
- ♦ **Current climate** within the organization encourages the teamwork and provides satisfaction, motivating and encouraging the employees;
- ♦ **Ethical behaviour and orientation towards the continuous improvement** is the bases of all the managers' and employees' activities, and of the company regulations.

While the businesses are becoming more dependent on the banks in which case the interest of the banks is to satisfy operationally and universally the customer requests. On the other hand, the banks mix what they can offer to the customers and hence the interest for a particular bank is restricted in favour of the option for any bank.

*The features of the home bank lead to minimize the personal relationships between customers and banks.* Hence, the major options for a particular bank are reduced.

Customers are now willing, depending on some minor interest to give up at the services of a bank in favour of another.

For most of the customers the phenomena of alienation appear and for their counteract stance of maintaining the old forms of benefits.

The conservative people have preference for "display" in relations with the bank: for the reverent and preventers receiving that bank staff must show their occurrence in the bank premises. Thus, the old remains strongly committed near the new, and for the impact of the new technological age affect people differently, because of the existence of the psychological sides of the human personality.

Total quality, far from being a fashion, is an objective which must mobilize all the employees of a company to orient its actions towards the customer.

**Total Quality's Beneficiaries** are also:

- **Clients** – it is assessed the degree of loyalty towards their loyalty to the products / services under the brand company. Benefits are also obtained in terms of the internal customers (employees) of the



company because they are motivating the employees of the company (from the top to the bottom of the hierarchy) to achieve the objectives (proposed to be done by the firm), in their own interest and in that of the environment.

- **Organization** – it is increased the value offered to the customer and decreased the non quality, reputation and image of the company.

- **Management** – it is increased the prevention and decreased the disruption and waste of resources in the firm.

The continuous improvement must be included in how to work in that organization, to be a direction of its own culture, assumed as a fundamental value. It needs a new leadership and a new vision of the marketing focused on the customer.

On the one hand the businesses are becoming more dependent on the banks in which case the interest of the banks is to satisfy operationally and universally the customer requests. On the other hand, the banks mix what they can offer to the customers and hence the interest for a particular bank is restricted in favour of the option for any bank.

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In conclusion, the quality of the relationship between the customer and the bank creates the essential vector of the banking companies’ development, and to maintain the optimal relationships with the existing clients depends crucially on the quality of the services offered / provided to the customers and the banking institution's ability to personalize the relationships with their customers.

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## **Determinants of inequality in Italy: An approach based on the Shapley decomposition**

Martina Celidoni <sup>1+</sup>, Isabella Procidano <sup>2</sup> and Luca Salmasi <sup>3</sup>

<sup>1</sup> Department of Economics, University of Padua

<sup>2</sup> Department of Economics, University of Venice

<sup>3</sup> Department of Economics, University of Verona

**Abstract.** *Inequality is a common concern, strongly perceived by people as well as by governments that redistribute resources through taxation and public expenditure. In order to design their redistributive policies, governments need information about the underlying factors explaining how resources are distributed and this paper addresses this topic. We propose an analysis of the inequality determinants in Italy using the Shapley value decomposition on pseudo-panel data and taking into account the geographical specificity of inequality.*

**Keywords:** Inequality, Gini index, Shapley decomposition, Pseudo-panel

**JEL Codes:** D31; C10

### **1. Introduction**

The idea that economic developments of the last few years have not been shared fairly is a common thought according to OECD<sup>28</sup>. Even if people perceive inequality seriously<sup>29</sup>, looking at the OECD report 2008 about income distribution and poverty, data show that the increase in inequality, although widespread and significant, has not been as huge as most people probably think it has been.

Actually the recorded moderate increase, in developed countries, over the past two decades hides the relevant presence of governments that, redistributing resources, have tried to slow down the growth in inequality. Information about the relationship between poverty and personal characteristics is therefore important to identify those individuals who are vulnerable to poverty and improve the targeting of anti-poverty policy measures (Biewen and Jenkins, 2005).

This paper tries to look behind poverty trends over time and to understand the relationship between poverty and personal characteristics; it presents the dynamic of Italy's inequality in the period 1997-2004 using the Shapley value decomposition (Shorrocks, 1982, 1999).

So far, the methodology has been used with cross-sectional data about income distribution, ignoring the dynamic impact of its underlying sources over the life cycle. In this study we add time dimension by introducing macrocohorts.

As in Italy poverty has a geographical specificity, looking at the national level this heterogeneity will be lost, that is the reason why we consider two different subsamples for the analysis. We will compare the

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<sup>+</sup> Corresponding author. Tel.: (+39) 0498274217 ; fax: (+39) 049 8274211.

E-mail address: [martina.celidoni@unipd.it](mailto:martina.celidoni@unipd.it)

<sup>28</sup> <http://www.oecd.org/dataoecd/45/42/41527936.pdf> [11/06/2009].

<sup>29</sup> In Italy, for over 80% of the surveyed, the unfairness is quite strong (OECD Report 2008 about income distribution and poverty).

North-central and Southern Italy<sup>30</sup> with the aim of understanding the different impact on inequality of education, occupation and demographic characteristics between 1997 and 2004 using data about households expenditure habits of the Italian National Institute of Statistics (ISTAT). In section two we will present the data used, in section three we will shortly describe the Shapley value decomposition and finally we will conclude with the empirical results.

## 2. Method

### 2.1. Data and cohorts specification

The empirical analysis has been developed on the Italian Household Budget Survey (ISTAT), we joined the information of eight independent cross-sections to obtain a cohort reconstruction of the data, grouping by the age of the household's head.

We split the original sample by territorial dislocation of households, distinguishing between those living in the North-central and Southern Italy. The subdivision was decided because there exists a strong heterogeneity between the northern and the southern Italian economic structures.

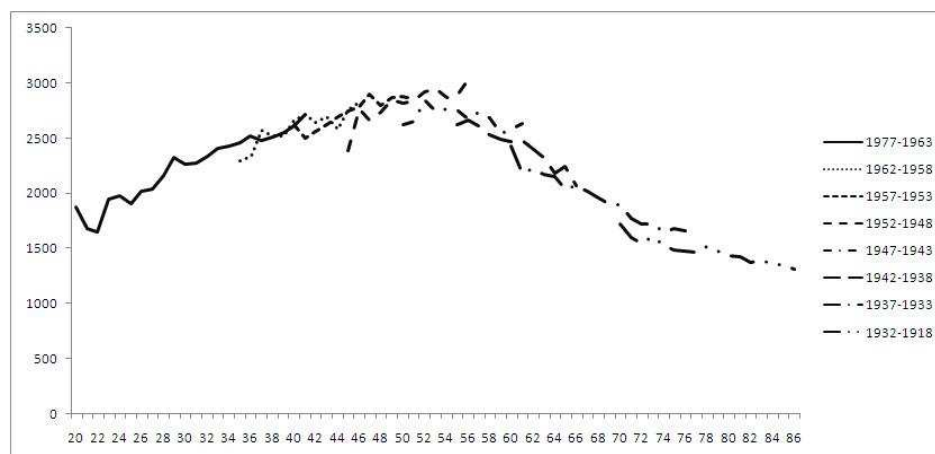


Fig.1a: North-central Italy. Real expenditure by age.

<sup>30</sup> We consider as North-central Italy the following regions: Piemonte, Valle d'Aosta, Lombardia, Liguria, Trentino Alto Adige, Veneto, Friuli Venezia Giulia, Emilia Romagna, Toscana, Umbria, Marche, Lazio. The South Italy subsample was defined as residual.

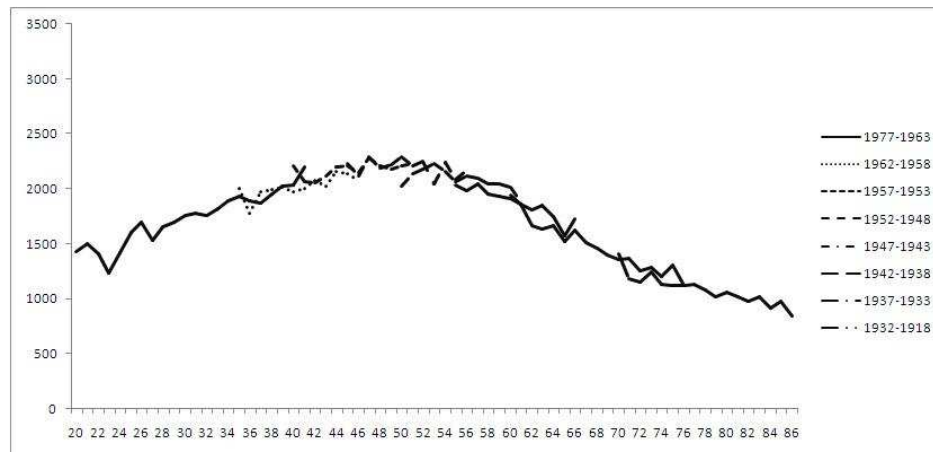


Fig.1b: South Italy. Real expenditure by age.

Figures 1a and 1b represent the dynamic of the real expenditure by age for the two subsamples. We can notice how the North-central expenditure level is higher than the southern and seems to increase more rapidly with the age, for each macrocohort.

The expenditure patterns reflect the different dynamics in the two Italian areas that can be explained as follows: while in the North and Centre the increase in expenditure can be driven by earnings dynamics reaching its maximum over the life cycle when workers usually reach the top of the career, in the South this is less evident, probably because of the structural characteristics of the labour market.

Moreover, as we can see in Figure 2, the Gini index<sup>31</sup> shows a similar dynamic both in the North-central and Southern Italy over the life cycle, even if the South registers systematically a higher level of inequality for each macrocohort.

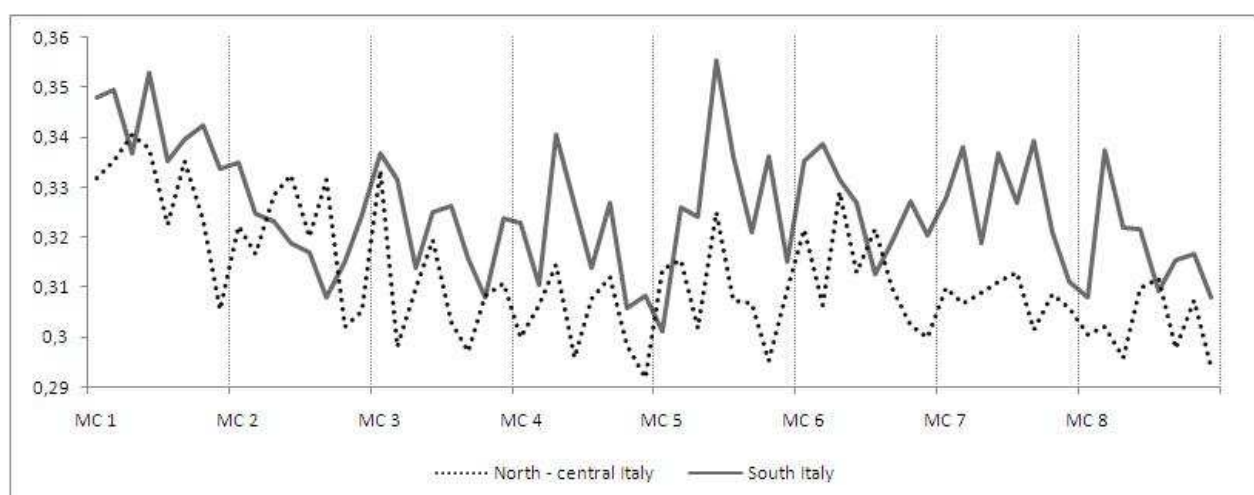


Fig.2: Gini index for macrocohorts.

<sup>31</sup> The Gini index is computed on the real equivalent expenditure for each macrocohort over the period considered. We used the CPI index and the Carbonaro's scale to obtain the real equivalent expenditure.

However, before using these data as a genuine panel for our estimates, there are some theoretical issues related to the use of cohorts that must be discussed.

A cohort can be defined as a group with fixed membership formed of individuals, who can be identified as they show up in the surveys (Deaton, 1985). The most natural representation is to consider an age cohort formed by individuals (household's heads) born in the same period.

The first problem with cohorts concerns the fact that the unobserved cohort fixed effect is likely to be correlated with the explanatory variables of the model. This problem becomes even more relevant if the average cell size and/or the temporal period considered are small (Verbeek, 1992). However, a cell size of about a hundred individuals is proved to be sufficient to ignore the cohort nature of the data and to treat pseudo-panels as genuine panels<sup>32</sup>.

Another problem regards non-random attrition, i.e. the population from which the sample is drawn must be homogeneous over time. Following Jiménez-Martin et al. (1998), we found that attrition is not systematically related with the demographic structure of the households and should not be correlated with any unobservable characteristic that affects households expenditure behaviour.

Finally, the aggregation of households observations introduces a systematic heteroscedasticity (Gardes et al. 2005) due to differences in cell sizes across cohorts and over time. Following the approach commonly adopted in empirical studies to circumvent this problem, we weighted each observation by an heteroscedasticity factor that is proportional to the square root of the cell size.

## 2.2. The Shapley value decomposition

The Shapley value decomposition was first applied as a solution for estimating the power of any given voter in a coalition voting game, then Shorrocks (1982, 1999) proposed this regression-based approach to decompose any inequality index, that can be expressed as the sum of its contributory factors.

Let  $G$  for example be the Gini index that depends on  $n$  income sources, the Shapley decomposition considers the marginal effect on  $G$  of eliminating each of the income sources in sequence, and then assigns to each source the average of its marginal contributions, in all the possible elimination sequences.

The procedure proposed by Shorrocks (1999) treats symmetrically all factors and leads to an exact additive decomposition of the inequality index. Moreover the methodology has the advantage that groups of factors may be considered as a single entity without affecting their total contribution.

To clarify the procedure, let us consider  $GTOT$  the value of the Gini index when all the  $n$  income sources are used, therefore  $GTOT$  will represent the overall level of inequality in the population. The contribution of the  $x$  factor to the total inequality is computed removing it from the income generating model and measuring the extent by which the index has changed.

Let  $G_{kk}(x)$  be the value of the Gini index when  $k$  factors have been dropped, so that only  $n-k$  income sources explain the inequality,  $k$  denotes also the rank of elimination of  $x$  in one of the  $n!$  possible dropping sequences. Thus  $G_{11}(x)$  denotes the Gini index when only the  $x$  factor is dropped as first, while  $G_{01}(x)$  corresponds to the Gini index computed with all the factors included. With the same logic,  $G_{22}(x)$  will be the Gini index when two factors are dropped and the  $x$  factor is the second in the  $(n-1)!$  possible elimination sequences. Finally  $G_{nn}(x)$  will be the value of the Gini index when all variables have been dropped, where  $x$  was removed as last.

<sup>32</sup> The cell size used is largely over one hundred for the northern subsample and around ninety for the southern. More detailed information is available upon request.

After having computed the index values, the x factor contribution  $C_k(x)$ , where k is the rank of elimination of x in the sequence, can be computed as average of the (n-1)! factor contributions.

$$C(x) = \frac{1}{n!} \sum_{k=1}^n C_k(x) \quad (1)$$

Finally the contributions of the x income source to the total inequality will be obtained as an average contribution of all the  $C_k(x)$ , according to (1), for details see Shorrocks (1999). The methodology also permits to calculate the proportion of total inequality that is not explained.

### 3. Empirical results: factors contributions

The factors contributions have been computed using a real equivalent consumption generating function that considers variables related to the household's head characteristics: education level, work position (unemployed, blue and white collar, worker, retired) and demographic characteristics (number of adults and number of children aged 0-14 in the household). We grouped the explanatories in three possible sources of inequality, education, demographics and occupation, to compute groups' contributions.

The geographical heterogeneity of the phenomenon can be noticed looking at the Figures 3.a and 3.b where the computed contributions are shown in the two subsamples considered: each shaded area corresponds to the contribution value of one group and their sum gives the total explained inequality. In both cases, North-central and Southern Italy, the selected variables can explain the inequality especially in the younger macrocohorts probably because for older macrocohorts what really determines the level of expenditure is the accumulation of wealth over the life. This decreasing power of the contributory factors justifies the use of macrocohorts to better understand the different impact of education, demographic characteristics and occupation to inequality over the lifecycle.

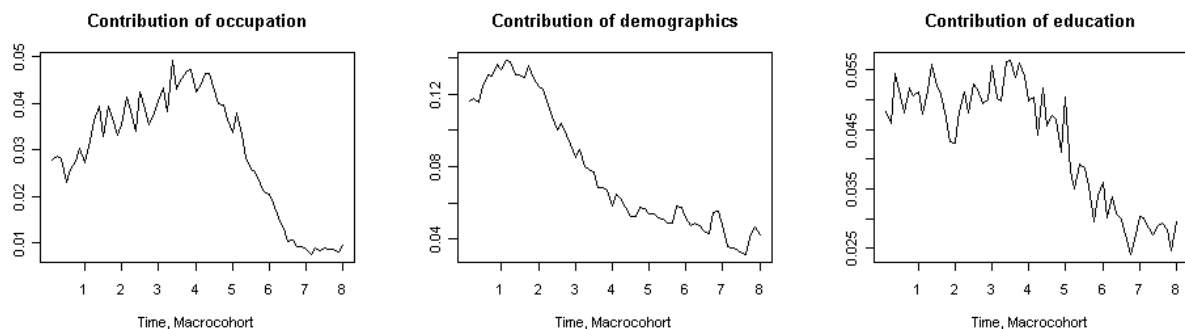


Fig. 3.a: North-central Italy. Gini index and factors contributions.



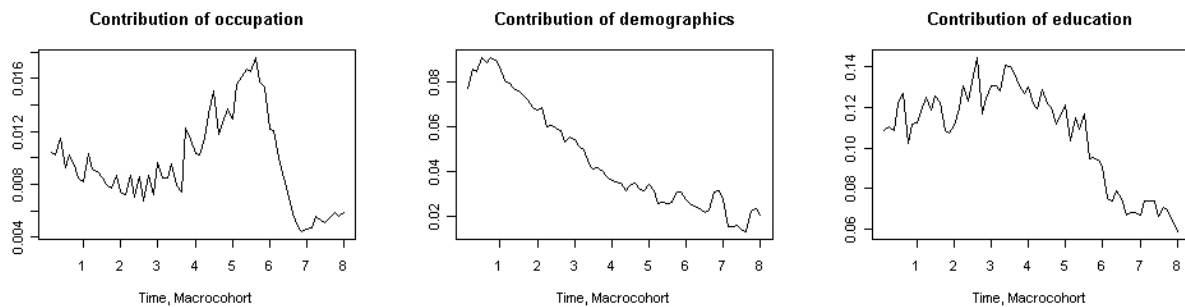


Fig 3.b: Southern Italy. Gini index and factors contributions.

We compare the two subsamples to highlight geographical differences in the explanation of inequality in Italy. In the South the highest contribution is given by education for every macrocohort: probably high levels of education give access to relatively better paid positions in the South compared to the North-Centre where high education is more diffused. In the North-central subsample the contribution of demographic characteristics, related to the composition of the household, seems to be the main determinant of inequality, especially for younger macrocohorts. This can be explained by the fact that in the North-centre the number of adults is more likely to be a proxy for the income sources in the household, since female labour participation is higher being a strong determinant in expenditure levels.

Even if potentially the decomposition could be helpful to identify the sources of inequality and therefore to design targeted policies, the total inequality is related to other factors that are not all included in the explanatories considered, leaving a residual term that needs more attention and further analysis.

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## Modeling Risk Patterns of Russian Systemically Important Financial Institutions

Henry Penikas<sup>33</sup>, Irina Andrievskaya<sup>2</sup>, Richard Connolly<sup>3</sup> and Sergey Aivazian<sup>4</sup>

<sup>1</sup> National research university 'Higher School of Economics' (Moscow, Russia)

<sup>2</sup> University of Verona (Italy)

<sup>3</sup> University of Birmingham (United Kingdom)

<sup>4</sup> Central Economic-Mathematical Institute (Moscow, Russia)

**Abstract.** The world financial crisis of 2008-2009 has shown that the existence of systemically important financial institutions (SIFIs) poses serious policy challenges to both developed and developing economies' authorities. As for now there are different approaches to identifying SIFIs focused on contagion, concentration, correlation and conditions effects. The paper aims at testing a new approach to SIFIs' identification based on the Russian banking data panel. It is hypothesized that SIFIs are characterized by unique behaviour in terms of risks undertaken. Automatic clustering procedure is being run to find homogeneous groups of banks in terms of their risk patterns. Risk patterns include proxies for credit, market, operational risk values for each bank in a sample. In order to reconstruct aggregate risk patterns for the banking clusters, copula models are used. Time variances in risk profile are accounted by identifying copula structural shift moment. The paper also tests a hypothesis about the key role of the institution's size in determining systemic importance. Finally the effectiveness of SIFIs' identification based on their risk profile is evaluated. When concluding, recommendations on SIFIs' regulation in Russia are provided.

**Keywords:** Russia, systemically important banks, risk, copula, pattern

**JEL Codes:** C38, G20, G21, G28, G32

### 1. Introduction

Supervision and regulation of systemically important financial institutions (SIFIs) is a serious policy issue. It has received a lot of attention starting from the crisis 2008-2009 when several major US players provoked financial turmoil in the global economy.

SIFIs' identification has long been considered a challenging task (e.g. (ECB, 2006)). Furthermore, there is still no adequate regulation in order to effectively deal with large conglomerates before and after their distress. A proper legal framework is required to prevent excessive risk-taking by large financial institutions.

When working out SIFIs' regulation there arises the issue of systemic risk. It can be realized through interconnectedness of financial institutions, i.e. through the contagion effect. Thus, confidence loss in SIFIs might quickly spread through the whole financial system. That is why SIFIs' identification and regulation is a crucial task for enhancing macroeconomic stability.

Several SIFIs' definitions have been recently proposed. For example, "a financial institution can be considered to be systemically important if its failure or malfunction would have a significant, adverse impact

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Henry Penikas. Tel.: +79165141620

E-mail address: [Penikas@gmail.com](mailto:Penikas@gmail.com)

Irina Andrievskaya. Tel.: +447466821882

E-mail address: [irina.andrievskaya@univr.it](mailto:irina.andrievskaya@univr.it)

on the financial system” (Praet, 2010). However, in (Thomson, 2009) the author argues that SIFIs’ definition is not that simple and should be worked out considering different sources of systemic risk followed by differentiating the categories of systemic importance.

The size of a financial institution is often assumed to be the SIFIs’ prior determinant. However, as shown in (Zhou, 2010) it is not always a sufficient criterion. According to (FSB, 2010) “Every institution has a unique risk profile, making it impossible to solely rely on a one size-fits-all minimum capital requirement.” Small banks can also be systemically important when they form a part of a ‘herd’ (Adrian & Brunnermeier, 2010). This is referred to as “too many to fail” case in (IMF/BIS/FSB, 2009b), (Vom Acharya & Yorulmazer, 2007).

Approaches to SIFIs’ identification can be grouped in two blocks: qualitative and quantitative methods. It should be emphasized that most papers focus on developed economies or the global financial market. Moreover, many studies analyze theoretical models and provide calculations based on a banking sector model.

The qualitative assessment is based on several bank’s characteristics: size, substitutability, interconnectedness (or contagion), complexity of an institution (IMF/BIS/FSB, 2009b), leverage level, maturity mismatch (Adrian & Brunnermeier, 2010) and others. However, while the qualitative analysis stands as necessary, it does not provide sufficient criteria for SIFIs’ identification.

To get a deeper understanding quantitative methods have been worked out. They include an indicator-based methodology, a network analysis and an assessment of institutions’ contribution to systemic risk. For the indicator-based approach the survey (IMF/BIS/FSB, 2009b) provides a set of relevant measures. An example of using such a technique is presented in (ECB, 2006), (IMF, 2010a). The network analysis consists of contagion effect investigation (cf. (Furfine, 1999)) and a so-called centrality approach (cf. (Bech, Chapman, & Garratt, 2008), (von Peter, 2007)). The third type of the quantitative methodologies assesses the SIFIs’ contribution to systemic risk and includes two sub-approaches. The first one is the estimation of systemic risk and then its attribution to individual contributors (the “top-down” method; cf. (Segoviano & Goodhart, 2009), (Zhou, 2010), (Tarashev, Borio, & Tsatsaronis, 2010), (Huang, Zhou, & Zhu, 2010)); the second one is, by contrast, a “bottom-up” approach (cf. (Adrian & Brunnermeier, 2010)).

The above-mentioned methodologies could be used for determining capital requirements (cf. (Gauthier, Lehar, & Souissi, 2010)). Another way of assigning capital is proposed in (Vim Acharya, Santos, & Yorulmazer, 2010) where it is suggested to apply higher deposit insurance premiums to large banks. While in (ECB, 2010) a systemic tax is discussed.

A serious issue, while identifying SIFIs, is to understand their risk pattern. It is addressed in (Kuritzkes, Schuermann, & Weiner, 2003), (Rosenberg & Schuermann, 2006), (Elsinger, Lehar, & Summer, 2006). In (Kuritzkes, et al., 2003) the authors suggest a “building block” approach for aggregating risks and assume that all risks are jointly normally distributed. To avoid this assumption in (Rosenberg & Schuermann, 2006) a methodology using copulas is developed.

The crisis of 2007-2009 has raised serious policy debate with respect to the regulation of SIFIs. In the work (Morrison, 2009) it is argued that creation of a systemic risk regulator is the most effective way. While in (FSA, 2009) a so-called “living will” concept is considered<sup>34</sup>. There are also different proposals with respect to limiting the size and restricting the activities of SIFIs (cf. (IIF, 2010)).

The aim of this paper is to test the efficiency of a new approach to SIFIs’ identification. The main hypothesis tested is that SIFIs’ risk pattern<sup>35</sup> is unique thus providing a significant basis for identifying SIFIs.

<sup>34</sup> It is examined in more details in (Avgouleas, Goodhart, & Schoenmaker, 2010)

<sup>35</sup> Risk pattern is a credit institution’s characteristic measured through a period of time. It incorporates the values of three material banking risks (credit, market and operational) for each time point.

The research focuses on the Russian banking system and is based on Russian banking data. Nonetheless, the results are considered to be relevant to both developed and developing countries.

## **2.Method**

The methodology, employed in the current study, consists of 4 stages. The first one is the assessment of individual risks (namely, credit, market and operational) for each bank in every period. The second step is the cluster analysis of the whole banking system in order to determine the homogeneous banks' groups in terms of their risk pattern. The third phase is the estimation of the structural shift moment in copula of joint risk distribution in each cluster. Finally, the regression analysis is carried out in order to test the hypothesis that the size of an institution determines its systemic importance. For the purpose of this study quarterly financial statements of all the Russian banks for the period 2004-2010 are used (25 quarters). The data<sup>36</sup> is available on the website of the Central Bank of Russia.

### **2.1.Risk Measurement**

The estimation of credit, market and operational risks, used in this paper, is described in details in (Andrievskaya, Penikas, & Pilnik, 2010). The approach for risk assessment is based on the methodology proposed in (Rosenberg & Schuermann, 2006). The credit risk return is calculated as the ratio of overdue indebtedness to the credit portfolio. The market risk return is estimated as the ratio of profits and losses from market-to-market revaluation to the amount of the trading portfolio. Operational risk return is calculated as the ratio of net income to the total assets.

### **2.2.Cluster Analysis**

The cluster analysis is run to determine banks characterised by the same risk patterns. For the purpose the k-means clustering is used. The methodology for pattern dynamics analysis was firstly used to our knowledge by Aleskerov and Alper in 2000 (Aleskerov, Alper 2000). Recent findings are presented in (Aleskerov, Belousova, Serdyuk, & Solodkov, 2008). Clustering is done based on 75 variables as three risks are measured in 25 quarters. Each cluster is then analysed according to the banks' characteristics. Initial K number is set to be 5.

It is important to mention that the clusters were determined in four steps. Firstly, 5 clusters were examined in terms of mean values, standard deviations, correlations, minimum and maximum values of individual risks. Then, based on the similarities authors undertook cluster consolidated. At the next stage the largest cluster containing 1108 banks out of 1206 observations was also partitioned in five clusters. Five clusters obtained were aggregated to three to have the most differentiating features. The final number of homogeneous groups equalled to five clusters.

### **2.3.Copula Structural Shift Identification**

To test the hypothesis it is also necessary to examine the uniqueness of the received patterns in terms of the copula structural shift. In this paper an algorithm first presented in (Brodsky, Penikas, & Safaryan, 2010) is employed to estimate the moment of structural shift in copulas.

The copula is used to construct a joint distribution given the knowledge of marginal distributions. In the literature there are two main classes of tests with respect to copula- models. The first one includes parametric tests (e.g. for Gaussian copula (Malevergne & Sornette, 2003), for Clayton one (Shih, 1998), (Glidden, 1999), (Cui & Sun, 2004)). The second one - non-parametric, including the so-called blanket tests (e.g. (Fermanian & Scaillet, 2003), (Breyman, Dias, & Embrechts, 2003), (Dobric & Schmid, 2007), (Junker & May, 2005), (Genest, Quessy, & Remillard, 2006)). While the analysis of the structural shift in copulas has

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<sup>36</sup> Data and program codes for R are available from the authors on request.

received much less attention. It was partly examined in such works as (Tsukahara, 2005), (Busetti & Harvey, 2011), (Harvey, 2008), (Remillard & Scaillet, 2009).

For the purpose of the current study the following procedure of determining the copula structural shift is used. There is a sample  $\{X_1, \dots, X_N\}$  of independent  $d$ -dimensional vectors and an unknown moment<sup>37</sup>  $m = [\theta N]$  when the dependency among components  $X_{1l}, \dots, X_{ld}$  of each vector  $X_l$  changes. Thus, the joint distribution function can be defined as:

$$H(x_{1l}, \dots, x_{ld}) = \begin{cases} \tilde{C}_1(F_1(x_{1l}), \dots, F_d(x_{ld})), & 1 \leq l \leq m \\ \tilde{C}_2(F_1(x_{1l}), \dots, F_d(x_{ld})), & m < l \leq N \end{cases}, \quad (1)$$

where  $x_l = (x_{1l}, \dots, x_{ld})$  - realization of  $d$ -dimensional vector  $X_l$  in the moment  $l = 1, \dots, N$ ;  $\tilde{C}_i (i = 1, 2)$  is a function of  $d$ -variables (copula). According to the Sklar theorem (cf. (Sklar, 1959, 1996)) the function  $\tilde{C}_i$  is determined as shown below:

$$\tilde{C}(u\alpha) = F\left(F_{X^{(1)}}^{-1}(u^{(1)}), F_{X^{(2)}}^{-1}(u^{(2)}), \dots, F_{X^{(d)}}^{-1}(u^{(d)})\right), \quad (2)$$

where  $u = (u^{(1)}, u^{(2)}, \dots, u^{(d)})$ ,  $u^{(i)} = F_{X^{(i)}}(y^{(i)})$  is a value of the marginal distribution function of a random variable  $i (i = 1, \dots, d)$  from the multidimensional random vector  $X = (X^{(1)}, X^{(2)}, \dots, X^{(d)})^T$ , whose joint distribution function is  $F_X$ ;  $\alpha = (\alpha_1, \alpha_2, \dots, \alpha_k)$  is a vector of parameters of the copula function.

It should be emphasized that the structural shift is discrete, not continuous. The change of copulas takes place in different periods of time which depends on the frequency of data (for example, the change takes place on the next day if the daily data are used).

Thus, it is necessary to test the following hypothesis:

$$H_0 : \tilde{C}_1 = \tilde{C}_2 \quad (3)$$

$$H_1 : \tilde{C}_1 \neq \tilde{C}_2, \quad (4)$$

where  $\tilde{C}_1, \tilde{C}_2$  are some copulas (not necessarily from the same copula-family).

And now an estimate of the structural shift moment  $m$  should be constructed, for which the probabilities of the first and the second type estimation errors would be small enough (tend to 0 with  $N$  increasing), while an estimate of the structural shift parameter  $\hat{\theta}_N$  would be consistent (tends to the true value with  $N$  increasing).

The proposed method is based on the non-parametric approach of comparison of empirical copulas  $D_l(u)$ . These copulas are determined for each period of time  $l = 1, \dots, N - 1$  as the following:

$$D_l(u) = \frac{1}{l} \sum_{i=1}^l I(U_{i,l} \leq u) = \frac{1}{l} \sum_{i=1}^l \prod_{j=1}^d I(U_{ij,l} \leq u_j) \quad (5)$$

$$D_{N-l}(u) = \frac{1}{N-l} \sum_{i=l+1}^N I(U_{i,N-l} \leq u) = \frac{1}{N-l} \sum_{i=l+1}^N \prod_{j=1}^d I(U_{ij,N-l} \leq u_j), \quad (6)$$

<sup>37</sup> The symbol  $[ \ ]$  means the integer part.

where  $u_j$  is the threshold of the partitioning net of the d-dimensional unit cube;  $I(\bullet)$  is an indicator function, which equals 1 when the condition in the brackets is true;  $U_{i,l} = (U_{i1,l}, \dots, U_{id,l})$  is the vector of the estimated empirical distribution functions where for each  $j = [1, \dots, d]$  the below expressions are true:

$$U_{ij,l} = \frac{l}{l+1} F_{j,i}(X_{ij}) = \text{rank}(X_{ij})(l+1), \quad 1 \leq i \leq l \quad (7)$$

$$U_{ij,N-l} = \text{rank}(X_{ij})(N-l+1), \quad l+1 \leq i \leq N \quad (8)$$

In order to find the moment  $m$  the modification of the Kolmogorov-Smirnov<sup>38</sup> statistics is employed (the modification takes into account the part of the sample before and after the shift moment  $l$ ):

$$\Psi_{l,N-l}(u) = (D_{l(u)} - D_{N-l}(u)) \sqrt{l(N-l)/N} \quad (9)$$

$$T_N = \max_{[\beta N] \leq l \leq [(1-\beta)N]} \sup_u |\Psi_{l,N-l}(u)| \quad (10)$$

where it is given that  $0 < \beta < 1/2$  so that the following inequality holds  $[\beta N] \leq l \leq [(1-\beta)N]$ .

The estimate of the structural shift moment is constructed as the following:

$$\hat{m}_N \in \text{Arg} \max_{[\beta N] \leq l \leq [(1-\beta)N]} \sup_u |\Psi_{l,N-l}(u)|, \quad (11)$$

while the estimate of the structural shift parameter is defined as  $\hat{\theta}_N = \hat{m}_N/N$ .

The maximum value of  $T_N$  implies the copula structural shift moment.

## 2.4. Regression Analysis

In order to understand whether the size of an organization can determine its systemic importance the probit model is employed. The dependent variable equals 1 if a bank belongs to the group of systemically important institutions, and 0 in all the other cases. The explanatory variable is the amount of the bank's total assets. The model also includes time dummy variable in order to allow for the time effect.

## 3. Results

Five distinctive patterns in terms of risk have been obtained due to cluster-analysis procedure (Fig.1, Fig.2). Each cluster represents a particular type of strategy, which, however, requires further analysis.

The first cluster consists of 8 banks, which are not the largest ones in the sector (only several of them are from the top 100 banks in terms of assets and on 01.12.2010 their share in total assets of the sector was 0.75%). They have the largest level of market risk in terms of mean value (-191%), and standard deviation (4.57).

To this pattern the concept of "too risky to fail" can be applied. Problems arising in such banks could have a significant negative impact on their counterparties. As well as the loss of confidence in these institutions could lead to a serious contagion effect. There have already been examples (e.g. Herstatt Bank) when the failure of a relatively small institution imposed significant losses on its counterparties (Thomson, 2009). There was an example in the Russian banking system as well. In 2004 the withdrawal of licences from only two small banks (Sodbusinessbank and Kreditrast bank) due to money-laundering issues (their total assets amounted to 0.29% of the total assets in the system) led to significant liquidity problems in many other banks

<sup>38</sup> This statistics was only discussed in previous researches (e.g. (Tsukahara, 2005)). While the implementation was done only with respect to the statistics Cramér-von-Mises (cf. (Remillard & Scaillet, 2009))

including the major ones (Gaidar, Sinelnikov-Mourylev, & Glavatskaya, 2004). So, the 1st cluster could jeopardize the whole system.

The first cluster is characterized by the largest risk correlation. It is particularly high between market and operational (negative correlation) and credit and operational risks (positive correlation).

The analysis of the copula structural shift also confirms the uniqueness of the first cluster. Statistical inequalities in copulas are evident from December 2004 to September 2006 with test statistics reaching its maximum in December 2005. Besides, the unique local maximum is observed in September 2008 corresponding to the disastrous event of Lehman Brothers failure.

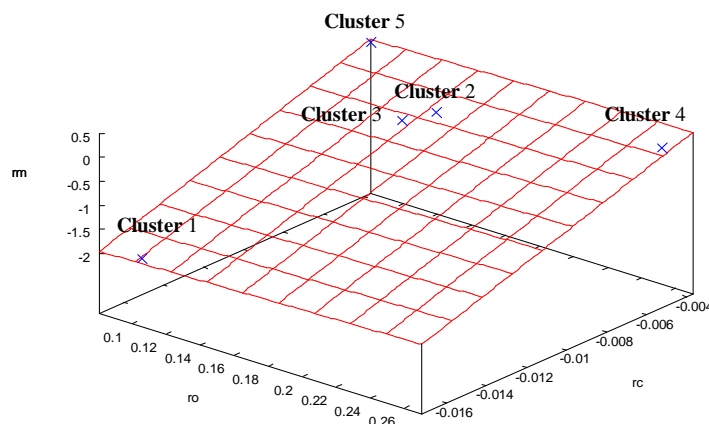


Fig. 1 Banks' patterns in terms of risk<sup>39</sup> levels

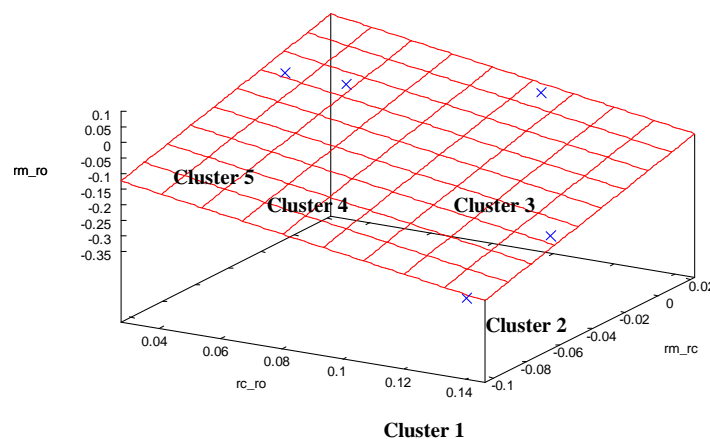


Fig. 2 Banks' patterns in terms of risk<sup>40</sup> correlations

<sup>39</sup> Notations used: rc – credit risk, rm – market risk, ro - operational risk.

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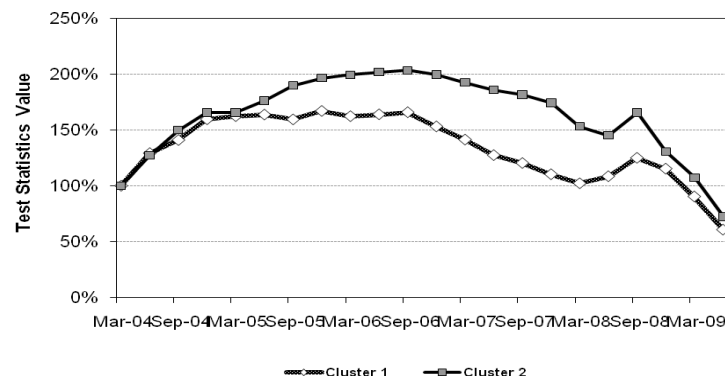


Fig. 3 Copula structural shift for SIFIs' clusters

The second cluster consists of 90 banks, which are mainly retail oriented and inter alia include such large credit institutions as Sberbank, Alfabank, VTB24. It also contains quite a substantial number of regional banks. This group has relatively large mean value and standard deviation for market risk (-49% and 2.13 correspondingly). Furthermore, it has rather high negative correlation between market and operational risks and positive correlation between credit and operational risks. In terms of the copula structural shift this pattern also has a local maximum in September 2009 as it is for the first cluster (Fig.3). The local maximum is not observed for the last three clusters. This cluster should also be treated as of systemic importance and the concept of "too many to fail" can be applied.

The third cluster is composed of 125 banks, which are predominantly made up of banks specializing on some particular industries' lending. This group is characterized by low levels of correlations among risks. And it is interesting to mention, that the correlation between credit and operational risks, though small (0.02), is positive. This cluster is a typical 'median' cluster.

The last two clusters include the rest of the banks. The risk levels of these groups are relatively small in terms of mean value and standard deviation. They differ with respect to correlation between market and operational risks: for the fourth cluster it is small and positive, while for the fifth – small and negative. All three last clusters are similar in terms of the copula structural shift moment, which appears in September 2006 corresponding to the event on Russia being granted the investment credit rating from all the reputable rating agencies of the world (Fig.4).

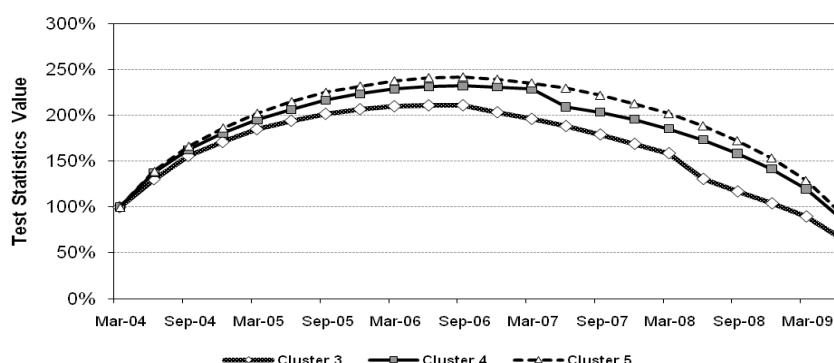


Fig. 4 Copula structural shift for other clusters.

It is necessary to emphasize that according to the results of the regression analysis the hypothesis about the influence of the size of an institution on its systemic importance can not be rejected. An increase of 1 bn. Rub in the bank's size raises the probability for a bank to be included in the first two clusters by 7%. Moreover, in the 3rd and 4th quarters of 2009 the time effect becomes significant: the difference between risk patterns of banks from the first two clusters and from all the other clusters decreases. These results are in line with the conclusions made in the paper (Drehmann & Tarashev, 2011). The authors, using "bottom-up" and "top-down" methodologies for estimation of systemic importance and using the regression analysis, have shown that such measures as the size of a bank (total claims from non-banks creditors) and the amount of credits and borrowings on the interbank market are the reliable determinants of systemic relevance. This also confirms the effectiveness of the indicator approach.

The findings of this study have an important policy implication. The analysis has revealed the existence of 5 distinctive banks' patterns, which might need differentiated supervision and regulation. For the first cluster special treatment of their trading activities might be applied. For the second pattern it is, in turn, essential to determine risk events, which have the most significant impact on the correlated portfolios of banks. This can be done using stress-testing techniques.

#### 4. Conclusion

In this paper an approach to SIFIs' identification has been proposed. The analysis is based on the Russian banking statistics. The main hypothesis is that SIFIs have unique risk patterns that might be traced due to cluster-analysis application. The banking groups obtained are indeed unique both in terms of marginal risk distributions, and in terms of risk distribution copula shift moments. Five distinctive banks' patterns revealed comprise, in our opinion, two SIFIs clusters: "too risky to fail" and "too many to fail" ones. The findings prove the efficiency of the proposed approach to SIFIs' identification. The results have important policy implications. The obtained clusters require differentiated regulation and supervision. The design of the corresponding proposals is the issue of further investigation.

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## Appendix. Descriptive statistics

Table 1. Mean values, standard deviations, minimum and maximum values of individual risks in each cluster.

Cluster	Risk	Obs	Mean	Std. Dev.	Min	Max
1	Credit	200	-0,0169	0,0475	-0,2655	0,0000
	Market	200	-1,9123	4,5693	-45,0368	2,8157
	Operational	200	0,1025	0,1303	-0,0929	0,5085
2	Credit	2250	-0,0057	0,0188	-0,2706	0,0545
	Market	2250	-0,4873	2,1333	-13,9322	20,2185
	Operational	2250	0,1435	0,1487	-0,5654	0,7036
3	Credit	3125	-0,0073	0,0344	-0,6830	0,0190
	Market	3125	-0,3759	1,3110	-9,9943	7,9024
	Operational	3125	0,1419	0,1436	-0,4932	0,8927
4	Credit	9400	-0,0049	0,0236	-0,9731	0,5498
	Market	9400	-0,0263	0,3255	-6,9130	7,8319
	Operational	9400	0,2666	0,1864	-0,9961	0,9916
5	Credit	15175	-0,0039	0,0255	-0,9820	0,3922
	Market	15175	-0,0098	0,2752	-8,3461	10,0000
	Operational	15175	0,0842	0,1317	-0,9045	0,9781

Table 2. Correlations between individual risks.

Cluster	Risk	Credit	Market	Operational
1	Credit	1,000		
	Market	-0,103	1,000	
	Operational	0,139	-0,322	1,000
2	Credit	1,000		
	Market	-0,061	1,000	
	Operational	0,144	-0,227	1,000
3	Credit	1,000		
	Market	0,020	1,000	
	Operational	0,098	-0,057	1,000
4	Credit	1,000		
	Market	-0,025	1,000	
	Operational	0,058	0,023	1,000
5	Credit	1,000		
	Market	-0,010	1,000	
	Operational	0,030	-0,028	1,000

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## Sustainable development – a priority for the Romanian tourism strategy

Ioana Cristiana Patrichi

Romanian American University

**Abstract.** *Tourism represents a rapidly growing sector and has become one of the largest industries in the world. It's impact is extremely varied, because it plays an important and certainly positive role in the socio-economic and political development in destination countries and it contributes to a broader cultural understanding.. On the other hand, as a tool to create jobs, it has not fulfilled its expectations. At the same time, complaints from tourist destinations concerning massive negative impacts upon environment, culture and residents' ways of life have given rise to a demand for a more sustainable development in tourism. Different parties will have to be involved in the process of developing sustainable tourism. This paper focuses on what the tourism industry itself can do in order to increase its sustainability and and suggests possible tourism initiatives to help solve these problems.*

**Keywords:** tourism, sustainable development, local communities

**JEL Codes:** L83

### 1. Introduction

With about 935 million international arrivals and receipts of about 900 billion dollars in 2010, tourism is one of the largest industries in the world, registering a growth of 25% over the past 10 years [1]. More and more people want to travel, so that WTO forecast for 2020 in terms of international arrivals is of 1.5 billion. Prediction for 2020 is to increase tourism in all regions of the world, but especially those in developing countries. Europe, America, East Asia and Pacific will continue to hold 80% of total international arrivals and continued to dominate the industry, but regions such as Africa and South Asia will register growth of 5.5%, 6 % per year (while the global rate of growth will be 4%).

Therefore, the tourism industry is an important element of economic growth, both in the developed countries and those in developing countries. Tourism contributes to increasing exports, attracting foreign investment, GDP growth, job creation. In these conditions, many countries are becoming dependent on tourism, with all the implications that may arise (seasonality, the immediate reaction to the political instability, terrorism and crime, disasters, etc.). Currently, those countries whose economies rely on tourism industry began to pay attention to environmental issues and the socio-cultural. Preventing environmental degradation due to tourism activities, has become a priority for countries and regions taking part in tourism strong.

The tourists often retain the same habits on consumption of goods and services when they arrive at their destination, and this may be a particular problem for developing countries, countries that have not developed the program in terms of environmental protection and natural ecosystems, under pressure from mass tourism. The impact of tourism on the environment and communities is, in terms of sustainable development, a controversial issue, especially considering that tourism is growing rapidly, often unplanned and uncontrolled environment with adverse effects on natural and socio- cultural [2].



Where no plan envisages a development based on environmental protection, long-term economic benefits may be lower. Economic benefits of tourism can be easily observed by analyzing statistical data provided by the World Tourism Organization. It is thus evident that in the '90s, the period in which tourism is experiencing a strong globalization, the annual growth rate of international tourist arrivals (7.3%) exceeds that of the GWP (gross world product). In 1999, international tourist arrivals amounted to about 8% of world exports of goods and services, thus overcoming traditional exports such as cars, chemicals, office equipment and computers.

## **2. Sustainable development and tourism - some general aspects**

Sustainable development concept is relatively new, being first mentioned in 1987 in a report published by the World Commission on Environment and Development. Subsequently, in 1992, in Summit "Rio Earth" the concept is becoming more present in the "Agenda 21" and "Rio Declaration". "Agenda 21" provides a sustainable development plan and the "Rio Declaration" its most important principles of sustainable development for the XXI century. Both represented a challenge to governments, organizations and other bodies within the meaning of working to achieve a maximum level of sustainable development, defined by the Brundtland Commission in 1987 as "development that meets present needs without compromising the ability of future generations to meet their own needs".

Since the approval of two documents so far, world economic and social policy has developed into an extremely fast pace. Globalization, industrialization and liberalization have resulted in a new way of doing business and changed the relationship between people and the environment. At the same time, globalization has had a direct influence on job market, lifestyles, communities, industries and businesses. For those services (the default interest), the challenge is finding a balance between sustainable development, prosperity and people's desire to improve their material and financial conditions.

We can say that tourism is one of the greatest contributions to achieving sustainable development, primarily due to the dynamism and growth of the sector with direct implications on economic growth in the regions and tourist destinations, and secondly because of the fact that tourism is based on a direct link between consumers (tourists), industry, environment and local communities. This direct relationship, between tourism and sustainable development, is also created by the fact that in tourism, unlike other industries, the consumer (tourist) goes to the producer and to the product, and when this is properly planned and managed it can be a real life support for the rural and urban communities. The relation between tourism and sustainable development has three aspects:

- Interaction. Tourism by its nature, involves direct and indirect interaction between tourists, host communities and local environment;
- Awareness. Through tourism, tourists become aware of environmental problems and cultural differences, paying greater attention to sustainable aspect;
- Motivation. Most tourist activities are based on the desire of tourists visiting the region with an intact natural environment, attractive and come in contact with the local community.

In terms of this relationship, tourism can have a positive impact on local sustainable development, but may produce and environmental degradation.

The positive impact may result from:

- Creating opportunities for local economic development and jobs growth;
- Investment stimulation;
- Creation and development of local infrastructure;



- The establishment of inter-cultural links;
- To obtain income from the sale of natural and cultural resources that can be used for conservation activities and protect the environment.

In terms of negative impact, it may be manifested by:

- Exerting a direct pressure on fragile ecosystems;
- Exercising considerable pressure on host communities, which can lead to loss of authenticity;
- Increase local pollution.

The idea of minimizing the negative impact of tourism on environment and human communities, and to highlight its contribution to sustainable development came at the "Earth Summit +5, Special Session of the United Nations General Assembly" held in New York, in June 1997, when the Commission for Sustainable Development (Commission on Sustainable Development - CSD), was asked to develop an international action plan, aimed on sustainable tourism.

In 2001 the World Tourism Organization compiles and publishes the "Global Code of Ethics for Tourism", a reference guide on sustainable development and responsible tourism [3]. This guide is divided into nine chapters, setting directions that has to be followed by governments, tour operators, travel agents, tourism workers, host communities and even tourists, in order to practice sustainable tourism.

The Plan of Implementation adopted at World Summit on Sustainable Development (World Summit on Sustainable Development - WSSD), held in Johannesburg (South Africa) in September 2002, identify the measures that must be taken in order to develop sustainable tourism. The major objective of this plan is to increase "local communities benefit from tourism activities in ensuring the cultural integrity and protect the natural environment" [4]. Achieving this objective requires systematic actions taken both nationally and internationally.

Develop the Implementation Plan coincided with the declaration by the United Nations of 2002 as International Year of Ecotourism, representing an ideal opportunity to promote the idea of global sustainable tourism and its important role. Still, it must be emphasized the distinction between ecotourism and sustainable tourism. While ecotourism can be defined as alternative tourism based on natural environment, sustainable tourism requires membership at a series of sustainable development principles and their application in all types of tourist activities.

World Tourism Organization defines sustainable tourism as "tourism which leads to management needs to ensure economic, social and aesthetic, while maintaining cultural integrity, biological diversity and the welfare of local communities." The four dimensions of sustainable tourism are:

- Sustainable economic development in both the short and long term by:
  - Creation of partnerships between small and medium enterprises and multinational organizations in the field of tourism;
  - Organizing training courses for workers in the tourism industry;
  - Obtaining an international certification;
  - Diversifying the tourism product;
  - Allocation of resources to promote and diversify tourism products and services;
- Ecological sustainable development through:
  - To promote among tourists the ethical codes and rules of conduct;
  - Continuous monitoring of the impact of tourism on the environment;
  - Formulate development policies and strategies in accordance with the principles of sustainable development;

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- Implementation of a sustainable management of natural protected areas visited by tourists;
    - Cultural sustainable development through:
  - Maintaining cultural integrity;
  - Preserving local cultural diversity;
  - Ensuring the protection of natural environment and traditions;
  - Encouraging local people to preserve traditional customs;
  - Respect the right of ownership of local residents;
  - Educating tourists to adopt an appropriate behavior;
    - Sustainable development of local communities, in order to produce economic benefits.
  - The community should maintain control over tourism development;
  - Through tourism have created jobs for residents;
  - Encouraging small local entrepreneurs, by granting subsidies;
  - Increasing the local living standards as a result of tourism activities.

### 3. Objectives of sustainable tourism development

The international tourism authorities aim for the last years was to establish a set the objectives for sustainable tourism. In this context, was up a set of 12 indicators that address the challenges raised by economic, social and environmental, monitoring the priority for minimizing the negative impact of tourism on society and the environment and maximize the creative and positive contribution tourism to local economies, natural and cultural heritage conservation and quality of life of local communities and tourists [5].

- *The economic viability* depends on maintaining the quality of the natural environment intact.
- *Local prosperity* seeks to maximize the contribution of tourism to local economic prosperity of the host destination, including the proportion of expenditure, which is kept locally.
- *Social equity* requires widespread and equitable distribution of economic and social benefits resulting from the development of tourism activities, including improving opportunities, income and services available to the poor.
- *Satisfying the tourists* needs means also informing them about the importance of preserving and protecting the natural environment.
- *The welfare of local communities* (a social objective), it is closely related to environmental resource management and it may depends on the *quality of jobs*, so the uniform distribution of employment without discrimination made by race, religion or gender is an important point.
- *Local control* and authorization involves training local communities in planning and decision making on the management and future development of tourism in the region, and in terms of their consultation with third parties.
- Another objective relates to *biological diversity*. This is essential in human development due to the products and services they provide. Unfortunately, humanity has not given the proper respect to the biodiversity, destroying it by climate change, pollution, introduction of invasive species, etc.. Tourism has contributed and contributes to the protection and conservation of biodiversity through a series of projects and providing financial resources to local communities in some tourist destinations. However, tourism-biodiversity relationship is not always positive; there are particular situations where tourism development is carried out without compliance with environmental standards.
- *Resource efficiency* - to minimize the use of non-renewable and limited resources in the development and operation of tourist facilities and partner services.

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- For tourism, *cultural heritage* has an important role, due to the fact that a large number of forms of tourism are based on specific local cultural resources. In this context it is important to respect the historical and cultural heritage, enhancing it where possible and preserves authentic traditions specific host communities.

- *Physical integrity* of environmental resources is an extremely important goal. It seeks to maintain and enhance the quality of landscapes, both urban and rural, and avoid physical and visual degradation of the environment.

#### **4. Proposals for developing a strategy for sustainable development of Romanian tourism**

From the multitude of needs which man must face, the travel is higher order, after their basic needs, physiological. As a tourist destination, Romania has the necessary resources (geographical, human, cultural, spa etc.) to attract customers from all countries. Barriers that hinder the full achievement of this strategy are especially related to the lack of professionalism of the staff of businesses and organizations, and lack of marketing optics.

The national development strategy of Romanian tourism must establish the priority areas that has to be considered in the next period, taking into account both the potential supply and demand categories of interest that could be satisfied by exploiting existing supply. Sustainable tourism development strategy in Romania should identify the main aims and the means to achieve them, and evaluating their impact on the natural environment, economic and socio-cultural communities. To be effective, the strategy must maximize the effects of tourism on maintaining balance economic, social and environmental problems, and to trace the development of mountain tourism directions for it to feed the growth of local communities, with minimal negative impact.

The strategy for sustainable tourism development should be done around some components, such as:

1. Reassessment Romanian tourist system in accordance with the principles of sustainability - in this case can be targeted objectives such as: increasing the quality of tourism products and tourism services, the development by the responsible authorities of a set of sustainability indicators (this requires a sustained effort and involvement of both theorists and especially the practitioners in the field of tourism), development of sustainable levels of growth of the tourism market (in particular taking account of the experience of countries with a tradition of European tourism - France, Italy, Germany etc.); greater attention to actions aimed at protecting and preserving the environment.
2. Increasing the value of sums from the EU structural funds - can be achieved by meeting certain objectives such as promotion of these funds fierce population (a majority of the population, especially in rural areas is not aware of the existence of such funds) , in support of the state population and facilitating access to information on obtaining these funds, but mostly facilitation of the files necessary to obtain such funds (helping their preparation).
3. Supporting the local communities involved in the development of tourism activities and local culture - as objectives: to encourage the involvement of the local workforce (in recent years has been a massive exodus of population from rural communities to developed countries in Western Europe to conduct a wide range of activities and the development of tourism activities could attract a large proportion of them back), promoting cultural events and local events to national and

international level (part of the growing population in Europe are moving towards sustainable tourism activities and I think that Romania has enough potential to attract a large number of tourists, practitioners of these activities), organizing training courses in tourism (absolutely required for tourist activities to be carried out not only "legal" but also qualitative higher).

4. Sustainable land development and tourism areas - can be achieved by establishing the objectives as respect the carrying capacity (a first step was taken in 2008 when in villages such as Moeciu, Bran, Voineasa and Costinesti was forbidden to establish new tourist guesthouses, because of exceeded carrying capacity), reducing the negative impacts of construction (a chapter that our country is again backward) flow diversion from the most overcrowded tourist destinations to those less populated (this is still extremely difficult because the infrastructure - of any kind - has been mostly directed to certain destinations
5. Promoting sustainable forms of tourism, both among the tourists (a sustained increase in demand for such products will require an intensification of competition) and providers of tourist services - is particularly important from my point of view. Forms of sustainable tourism in our country are underused, even though the potential is extremely high. A first step could be the support of travel agencies in creating a variety of tour packages that include such activities. Most of these agencies do not include in their offer such activities, while others make them available to tourists only for celebrations (Christmas, Easter).

It is extremely hard to apply such a strategy because of the lack of interest from the legal authorities, tourism entrepreneurs, but also because the Romanian tourist does not have a "touristic culture" in the background.

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## Ecotourism – conservation of the natural and cultural heritage

Cristina Barna<sup>1 +</sup>, Manuela Epure<sup>2</sup> and Ruxandra Vasilescu<sup>3</sup>

<sup>1</sup> Pro Global Science Association, Romania

<sup>2</sup> Spiru Haret University, Romania

<sup>3</sup> Spiru Haret University, Romania

Motto

*"...putting a Green Glove on Adam Smith's hidden hand of the market place."*

*Geoffrey Lipman, the WTTC's President, when unveiled the Green Globe programme, Montreal, 1994*

**Abstract.** *Sometimes the concept of ecotourism is widely misunderstood and it is often used as a marketing instrument in order to promote tourism businesses related to nature. Ecotourism means not only nature, it also includes indigenous cultures. It is about fostering respect for nature and for cultures, too. The true ecotourism represents only "responsible travel to natural areas that conserves the environment and improves the well-being of the local people" (TIES 1990). This paper clarifies the definition of the ecotourism concept versus related concepts as "sustainable tourism", "responsible tourism", "nature based travel" or "green travel", presents the principles and benefits of ecotourism which is seen as a win-win solution and a Business Biodiversity model. We approach also the issue of commodification and ecotourism and the implications for local cultures and people. The key of a successful ecotourism which avoids the risk of corroding local cultures is the incorporation of local cultures and people into industry. Finally, the paper presents Romania case: main stakeholders and projects for Eco-Romania, which gained in 2009 two Golden Apple award for ecotourism, and a short description of two remarkable eco-destinations: Retezat National Park and Hateg Country Dinosaur Geopark, which developed the UNESCO concept of geopark and the European Geopark Network Strategy.*

**Key – words:** ecotourism, business biodiversity, local cultures, sustainable development, geopark

**JEL codes:** Q01, Q26, Q57

### 1. Ecotourism – conceptual framework

The International Ecotourism Society (2009) defines ecotourism as "responsible travel to natural areas that conserves the environment and improves the well-being of local people." (TIES definition from 1990). Considering its logo "uniting conservation, communities and sustainable travel", The International Ecotourism Society (2009) states the following ecotourism principles:

- Minimize impact.
- Build environmental and cultural awareness and respect.
- Provide positive experiences for both visitors and hosts.
- Provide direct financial benefits for conservation.
- Provide financial benefits and empowerment for local people.
- Raise sensitivity to host countries' political, environmental, and social climate.

Another definition of ecotourism and ecotourist is that of Ziffer, K.A. (1989): "A form of tourism inspired primarily by the natural history of an area, including its indigenous cultures. The ecotourist visits relatively undeveloped areas in the spirit of appreciation, participation and sensitivity. The ecotourist practices a non-consumptive use of wildlife and natural resources and contributes to the visited area through labour or financial means aimed at directly benefiting the conservation of the site and the economic well-being of the local residents. The visit should strengthen the ecotourist's appreciation and dedication to conservation issues in general, and to the specific needs of the locale. Ecotourism also implies a managed approach by the host country or region which commits itself to establishing and maintaining the sites with the participation of local residents, marketing them appropriately, enforcing regulations, and using the proceeds of the enterprise to fund the area's land management as well as community development."

Honey, M. (2008) defined ecotourism as travel to fragile, pristine, and usually protected areas that strives to be low impact and (often) small scale. It helps educate the traveler; provides funds for conservation; directly benefits the economic development and political empowerment of local communities; and fosters respect for different cultures and for human rights.

Efforts for conceptual framework of ecotourism were also made by our country, where Association of Ecotourism in Romania (2009) adopted and promoted the following ecotourism definition: *„Ecotourism is a form of tourism in which the main motivation for the tourist is the observation and appreciation of nature and local tradition in natural areas, and which must fulfill the following conditions:*

1. *contributes to nature conservation and protection;*
2. *supports the well being of local people, stressing local ownership, as well as business opportunities for local people (especially in rural areas);*
3. *has an educational component that creates awareness about nature conservation, both for tourists and local communities;*
4. *requires the lowest possible negative impact on the environment and on the socio-cultural component.”*

Untamed Path (2009) focuses on the main characteristic of ecotourism: *the trip will help “conserve and improve” the places the tourist visits*. Also, Untamed Path (2009), trying to define the experience of ecotourism, presents on its web-site the definitions of other related concepts: sustainable tourism, responsible tourism, nature-based tourism and green-tourism. In its view:

- *Sustainable tourism* represents any form of tourism that does not reduce the availability of resources and does not inhibit future travelers from enjoying the same experience. For example, if the presence of large numbers of tourists disturbs an animal's mating patterns so that there are fewer of that species in the future, then that visit was not sustainable.
- *Responsible tourism* represents tourism operating so as to minimize negative impacts on the environment.
- *Nature-based tourism* is a more generic term for any activity or travel experience with a focus on nature. These types of trips may or may not be environmentally sustainable or responsible.
- *Green tourism* is a term often used interchangeably with eco-tourism and sustainable tourism but more accurately described as "any activity or facility operating in an environmentally friendly fashion". The core of this concept is where resources are coming from and where wastes are going, solar powered lighting etc.

It is very important to mention that ecotourism can be (but it is not automatically) a form of sustainable tourism. Achieving sustainable ecotourism involves a balance between economic, environmental and social goals, and ethical values and principles. The principles of a real sustainable tourism are: using resources sustainably, reducing over-consumption and waste, maintaining diversity, integrating tourism into



planning, supporting local economies, involving local communities, consulting stakeholders and the public, training staff, marketing tourism responsibly, undertaking research and monitoring the industry.

The *global importance of ecotourism* is highlighted by several international agreements including: The UN Commission on Sustainable Development, 7th Session 1999; the UN World Tourism Organization Code of Ethics (1999); The Guidelines on Biodiversity and Tourism Development issued by the CBD (2003); The Quebec Declaration on Ecotourism (2002); and the World Summit on Sustainable Development (2002). Guidelines and standards relating to sustainable / responsible tourism (including specific reference to biodiversity) are also being developed by the Tour Operators' Initiative for Sustainable Development which has created environmental guidelines for hotels, resorts and tourist attractions.

## **2. Ecotourism – a win-win solution and a Business Biodiversity model**

We can define Business Biodiversity concept as *“commercial enterprise that generates profits through production processes which conserve biodiversity, use biological resources sustainably and share the benefits arising out of this use equitably”* (Building Biodiversity Report 2008). The business case for biodiversity is easy to make when a company depends directly on biodiversity to operate (the case of nature-based tourism), but examples can be found in other business sectors too, where greater biodiversity is associated with lower costs, increased productivity and higher profits. The concept of Business Biodiversity is related with *Potsdam Initiative –Biological Diversity 2010* (G8 Environment Ministers Meeting, Potsdam, 15 – 17 March, 2007), when it was initiated the process of analyzing the global economic benefit of biological diversity.

Also United States Agency for International Development (1995, in Synthesis Report Stemming the Loss of Biological Diversity: An Assessment of USAID Support for Protected-Area Management) identified ecotourism as an enterprise with potential positive contributions to the conservation of endangered biological resources. Ecotourism is seen as a win-win solution and its contributions include the raising of local awareness on the value of biological resources, the increase of local participation in the benefits of biodiversity conservation, and the generation of revenues for the conservation of biologically rich areas.

The Building Biodiversity Report 2008, analyzing the business biodiversity landscape, considers ecotourism a sector of potential business opportunities, together with other sectors as 'biodiversity-friendly' agriculture, sustainable forestry, a trade with non-timber forest products, sustainable fisheries and aquaculture, carbon sequestration in biomass, watershed protection, bioprospecting, biodiversity offsets, biodiversity management services, recreational hunting and sport fishing<sup>5</sup>. Ecotourism, as a biodiversity business model, has already enjoyed success in European economy.

Ecotourism is promoted as a means of achieving community development and preservation of natural environments. An ideal model of ecotourism is an integration of conservation and development, in which entrepreneurs, government and tourists create sustainable development while improving the welfare of local people. There are a lot of examples of how ecotourism is making direct, significant contributions to biodiversity conservation. One approach is through revenue generated to support protected areas. Some protected areas generate significant revenue from visitor fees collected at the point of entry or as user fees applied as, for example, part of an overall package cost (South Africa). In addition to the payment of fees, financial contributions may be generated by the sale of licenses, concessions and leases. Public authorities often delegate responsibility for managing tourism operations in protected areas to private businesses, NGOs, individuals or local communities (Indonesia). Many countries also impose indirect taxes on tourists and tourism facilities, with a proportion of the revenues earmarked for conservation (Belize, Caicos Islands).

In Building Biodiversity Report 2008 the following investment opportunities in ecotourism are identified:



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- Invest in ecotourism companies that can then take on the management of tourism concessions in national parks. These companies could also create or invest in private ecotourism facilities in areas of important biodiversity. Such investments could range from joint partnerships with existing ecotourism or hotel management companies to the creation of new companies. Any tourism facilities / operations would need to be certified according to credible standards.
  - Investment in joint ventures (public-private partnerships), particularly between communities and the private sector (and government), based on participatory and equitable negotiations.
  - A variation on this theme would be to invest in and / or create a 'chain' of ecotourism hotels and related operations – with well-designed facilities, professional management, centralized 'back office' operations, and a common promotional strategy – to create a brand that is synonymous with the highest ecotourism standards. This goal could also be achieved by buying a number of leading ecotourism operations.
  - Invest in existing eco-funds, and / or create new investment funds, that include ecotourism in their portfolios.
  - In the generation of sustainable livelihoods via businesses that value biodiversity there are opportunities to improve marketing (from product development to distribution); performance indicators to measure conservation results and poverty reduction; improved procedures for knowledge transfer between different projects, and investment in small / community-based operators whose services and products can be integrated in the mainstream tourism industry.

### **3. Commodification and ecotourism – implications for local cultures and people**

Generally, "commodification is the process of changing a cultural element, such as a household craft, or a natural object such as a native plant or animal community, into a commodity that can be exchanged in a monetary market: in essence, taking something that was not marketed and turning it into something that it is." (King, D., Stewart, W., 1996). Commodification of local culture and environment is a widely reported social impact of ecotourism with implications over indigenous people, too. *Ecotourism can have both positive and negative effects on indigenous people.* Indigenous people are considered the descendents of original inhabitants, distinct in language, culture or religion from the dominant population, who see themselves partly in terms of their habitat, who have a subsistence economy involving direct dependence on their habitat, and who manage resources collectively, often by a consensus of elders.

The negative impact of ecotourism is determined by the injection of the contrasting, external cultural influences and by the commodification that accompanies ecotourism development. The commodification of nature implies a change in the meaning of indigenous people environment, from a source of direct sustenance with a use value to a commodity with an exchange value. (King, D., Stewart, W., 1996). This represents a shifting in the relationship between the indigenous people and their environment: now they are working for tourism, not for land anymore, what is in fact a shifting from traditional, life-sustaining activities to service activities. The process of commodification is facilitated by concepts such as "national park", "protected area", "endangered species", "virgin forest", "intact ecosystem" that have become artifacts for the ecotourists of the developed world. The problem is that the ecotourism industry can produce contrasts in values of the local cultures, because not only does the indigenous people's environment become commodified, but also their work: their lifestyle turns to serving the tourists, so, in consequence, the authentic aspects of their lifestyle become blurred.

Positive implications of ecotourism are likely to be the greatest when the indigenous culture is already in a state of decline as a result of natural resource scarcity. In such cases, the local people may realize that change is needed and may be prepared for it. Negative cultural impact of ecotourism can be reduced if

indigenous people become decision-makers regarding the amount, location, timing and nature of tourist visitation to protected areas. Thus, local people are empowered to control the direction of cultural change, and the commodification of some cultural events and places may be viewed as desirable. It is very important to understand that ecotourism does not represent a panacea, an instrument for financing the protected areas. It requires cooperation and even partnerships between government and indigenous people, and managers really involved in understanding the cultural issues that could arise from establishing protected areas.

The key of a successful ecotourism is the incorporation of local cultures and populations into the industry. The local resentment to being cut-off from the benefits of ecotourism is thus reduced (for example, the cases of the Galapagos Islands of Ecuador, which suffered considerable socio-cultural conflict due to the fact that most of the tourism labor force was brought from mainland Ecuador, and of Maasai nomadic pastoralists who considered inadequate the compensation paid to them for their displacement from traditional lands because of the establishment of national parks and killed the wildlife in protest are of common knowledge.)

In conclusion, we may summarize the outstanding issues regarding ecotourism as: risk (unregulated, ecotourism can damage the environment and corrode local cultures), distribution of benefits (the local economic impact may be reduced), perceptions (developing countries fear that their parks and protected areas will become playgrounds for tourists and their land will not be available for farming, to feed and employ their indigenous population), lack of information (more and better information is needed about the actual and potential economic contributions of ecotourism enterprises and practices).

#### **4. Case-study: discover eco-Romania**

The *Association of Ecotourism in Romania* (AER) has the initiative to pave the way forward in the ecotourism sub-sector, of course, together with the Ministry of Tourism and all the business stakeholders. This is facilitated by the fact that in 2009 the ecotourism area Marginimea Sibiului and the Danube Delta Biosphere Reserve have got the Golden Apple Award for tourism in 2009. Golden Apple is awarded every year by the World Federation of Travel Journalists and Writers. Since it was set up in 1970, Golden Apple went to 41 destinations, so, Romania having at present 4 trophies (1975 – Moldovita Monastery and an award for an air company this year) could be considered a tourism destination.

The Association of Ecotourism in Romania has achieved a partnership for nature conservation and tourism development among tourism associations, non-governmental associations acting in local development and nature conservation, nature conservation projects and travel agencies. Therefore, the innovative idea promoted by AER is to bring together the public and the private sector in a partnership for nature conservation and sustainable tourism development. Its main objectives are: the creation and promotion of a well-defined image of Romania as an Ecotourism Destination at an international level, the development of ecotourism services and infrastructure for the proposed Eco-Destinations in Romania, and nature conservation and sustainable development in Romania. AER adopted and promoted principles based on two international models: Nature and Ecotourism Accreditation Programme, developed by the Ecotourism Association of Australia, and Nature's Best, the certification system of the Swedish Ecotourism Association. AER's approach is that these principles should be put into practice by those who offer ecotourism products as well as by those who plan the ecotourism-based development of an area. These principles are:

- Ecotourism takes place in natural areas;
- Ecotourism contributes to a better understanding, appreciation and enjoyment of discovering and protecting nature and traditional local culture;

- Ecotourism offers the best tourism practices from the point of view of nature protection and sustainable development;
- Ecotourism contributes actively to the protection of natural areas;
- Ecotourism contributes to the development of local communities in natural areas; Ecotourism must ensure the reduction of the negative impact on the local community and contributes to the conservation of local culture and traditions;
- Ecotourism must respond to the tourists' expectations. Potential eco-tourists have a high level of education and expectations, so the degree of satisfaction in terms of the ecotourism product is essential.
- Ecotourism marketing offers visitors complete and responsible information which leads to an increase in their respect for the natural and cultural environment of the visited areas.

AER considered of critical importance to create the *Ecotourism Certification System* as a mechanism for putting into practice the basic principles of ecotourism, in order to ensure nature conservation and sustainable development of local communities through tourism. This is an important step in a wider context determined by the fact that in March 2003 the World Tourism Organization recommended to governments to support the initiatives that promote the certification in sustainable tourism. The Ecotourism Certification System developed by AER has adapted the international experience to the Romanian context. It is based on the *Nature and Ecotourism Accreditation Programme* promoted by the Australian Ecotourism Association (NEAP is the first accreditation system in ecotourism) and on *Nature's Best* developed by the Swedish Ecotourism Association (the first accreditation system in ecotourism in the northern hemisphere). The Ecotourism Certification System addresses three different categories of applicants: ecotourism programmes / tours provided by tour-operators or guides (i.e. eco-tours of maximum 15 participants), small-scale accommodation structures in rural and natural areas (eco-lodges and guesthouses of maximum 25 rooms), eco-destinations (one or several communities within natural areas). The Ecotourism Certification System has been developed in partnership with Green Cross Romania and co-funded by the Environmental Partnership Foundation.

The involvement of the *Environmental Partnership Foundation*, which was established as an independent foundation in 1998 and is a member of Environmental Partnership, is remarkable. Some of its programmes and projects are worth mentioning here (EPF 2009, selection from the web-site):

- *Strengthening partnerships for Nature Conservation and Tourism in Romania* - a grant-making and capacity-building programme that stimulates the development and promotion of ecotourism in Romania, by supporting sustainable initiatives. The goal of the programme is to promote the concept and the development of ecotourism, in order to support nature conservation and local communities. The programme has a grant-making component that aims to support pilot projects in the following counties of Romania: Alba, Arges, Bacău, Bihor, Bistrita Năsăud, Brasov, Buzău, Caras-Severin, Cluj, Covasna, Dâmbovita, Gorj, Harghita, Hunedoara, Maramures, Mures, Mehedinti, Neamt, Prahova, Sălaj, Satu Mare, Sibiu, Suceava, Vâlcea and Vrancea and a capacity building component through training, technical assistance, information and support for the beneficiary and potential beneficiaries of the funds.
- *Green Spaces* – a grant-making programme of the Environmental Partnership Foundation and MOL Romania which has a new component with the aim to promote the protected areas of Romania in order to increase their acceptance level by the active contribution of NGOs, schools, local communities and administrators of the protected areas. Projects that intend to run the following type of activities will be funded based on this component: Junior Rangers, Day of Protected Areas, Biodiversity Day, Educational

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Trail development in protected areas, Permanent exhibition development in the visitors' center of the protected areas.

- *Living Heritage* - a grant and capacity development programme aimed at enabling local community development in Southern Europe by promoting sustainable culture and heritage initiatives. In Romania, the Living Heritage programme is implemented by the Environmental Partnership Foundation (Miercurea-Ciuc) and the Romanian Carpathian Foundation in partnership with the King Baudouin Foundation from Belgium. The programme's aim is the long-term support of local development through community involvement in the identification, conservation and sustainable use of heritage related resources.
- *Greenways* are successful and well recognized initiatives in Western European countries and in the United States. Greenways are routes, trails and natural corridors that are used in harmony with their ecological function and provide the opportunity for sports, tourism and recreation. Greenways offer plenty of benefits for our environment, improvement of the quality of life and present an opportunity for sustainable economic activities for the local population in towns and the countryside. The "*Mineral Water Trail*" Greenway is one of the first initiatives of this kind in Romania. This trail was created in Harghita County, in central Romania. The Romanian Environmental Partnership Foundation and the Csík County Environmental and Nature Protection Association took the first steps in 2000 in order to make this initiative a reality.
- *Eco-Business* – a programme which contributes to the sustainable economic regeneration in Romania. The method is to establish a framework for assisting Romanian small and medium-sized enterprises that wish to improve their environmental practices by promoting public/private sector partnerships. Romania will need to earmark larger financial resources in order to protect the environment, develop the administrative capacity required to implement the necessary measures, and to achieve proper legislation in accordance with EU regulations. The Eco-Business programme can play a significant role in achieving the above-mentioned goals by increasing the environmental knowledge of SMEs located in Harghita County, Romania. The success of the programme will impact SMEs' attitudes towards the environment and at the same time increase their profits, therefore making it a win-win situation.
- *Transylvania Authentica* seeks to protect the region's unique natural and cultural heritage by promoting and developing sustainable livelihoods. The Transylvania Authentica project is seeking to establish ways in which to ensure the survival of Transylvania's incredibly rich agrarian culture and its traditional foods and agricultural products, by bringing together the regions smaller producers and manufacturers. Transylvania Authentica is a joint project of the Romanian Environmental Partnership Foundation and The Prince's Charities Foundation.

#### ***Eco-destinations in Romania: The Hateg Country & Retezat National Park***

The most suitable conclusion of this paper might be the presentation of two eco-destinations, which can guarantee the success of Romanian ecotourism in the future. It is about two wonderful places of Romania: Retezat National Park and The Hateg Country.

*Retezat National Park* - "It is maybe the over 80 alpine lakes reflecting the beautiful blue sky like in the innocent eyes of a child... or the deep green of the superb forests covering the mountain sides... or maybe the peace you find when staying in this wonderful place that make Retezat special. It is here that you can find yourself, in that state of innocence from the beginning of time, and you can revel in the purity of nature, charging yourself with the positive energies released by this magic land." (AER, 2009). The *Hateg Country*, sometimes called "a small-scale representation of Transylvania" is another remarkable eco-destination of Romania. "To describe Hateg Country best, try to picture mountains with high pastures grazed

by flocks of sheep, beech and oak forests that cover the hills, with patches of orchards and valleys that host fields and small villages.” (AER, 2009).

These unique ecotourism destinations are possible due to AER and also to: *Retezat Tourism Association* ([www.turismretezat.ro/](http://www.turismretezat.ro/)) which brings together a group of local businesses and other stakeholders to develop and promote sustainable tourism in the Hateg area and the Retezat Massif; *PAN Parks* ([www.panparks.org](http://www.panparks.org)) which is an initiative to create a European-wide network of the best managed wilderness areas; *The Retezat National Park Administration* ([www.retezat.ro](http://www.retezat.ro)) is in charge with maintaining the priceless value of Retezat and coordinates all activities for the benefit of the Park and its visitors; *Hateg Country Dinosaur Geopark* ([www.geopark.go.ro](http://www.geopark.go.ro)) which has developed the UNESCO concept of Geopark and the European Geopark Network strategy that aim at an integrated approach to conservation of the natural and cultural heritage of a region, adapted to the Romanian context.

Let’s now present in detail the remarkable initiative of *Hateg Country Dinosaur Geopark*. For Romania, the Geopark opens a new era in approaching natural and cultural heritage conservation in the context of local development. For the first time in our country, universities, central and local authorities, entrepreneurs, schools and NGOs participated as partners in creating and implementing an integrated strategy for sustainable development.

The establishment of the geopark had a positive local and also regional impact. The Geopark created a network of natural and cultural significant places that are abundant in the Hateg area, which were included in organized tourist routes. The Geopark was established in order to become a place of scientific and ecologic education and training. In the near future positive effects will be firstly felt by the local communities that will be encouraged to create infrastructure facilities for hosting the visitors and development of ecotourism. The project will contribute to the revival of the folk traditions (costumes, dances) and handicrafts, creation of new small enterprises for processing agricultural products. Hateg Country Dinosaur Geopark is a member of the European Network of Geoparks since March 2005 and it is also present on the UNESCO Global Geoparks Network web-site. A remarkable initiative of a team composed firstly of Romanian academic professors, the Geopark represented at the same time a strategy and a framework for local initiatives and could also be considered a Local Agenda 21, providing a general framework for the development in this region in an attempt to revive the local traditions and to identify a coherent direction for economic development.

Eco-Romania does not mean only examples of best practices as above. It also means the unique ecosystems of the Danube Delta, The National Park Nerei Gorges – Beusnita which is protecting the longest karstic mountains from Romania, Apuseni Nature Park, Putna – Vrancea Nature Park, Touristic Area of Natural Reservation Iron Gates and so on. Eco-Romania means a huge potential for ecotourism development with unique traditions and cultural heritage in the European context.

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### ***Annex: Some facts about Hateg Country Dinosaur Geopark***

The Hateg Country has one of the most beautiful countrysides in Romania, having superb landscapes, so diverse that it has often been referred to as the small scale representation of Transylvania. The space of the country has also a strong cohesion assuring the setting for a strong local identity.

The area of the Hateg Country Dinosaurs Geopark overlaps the Hateg Country, situated in the north-western part of the Middle Carpathians. In the north, the Hateg basin opens to the depression of Transylvania through the corridor of Stei, it is rock-bounded at north-east and east by the Sureanu Mountains, at south by the Retezat Mountains, at south-west by the Tarcu Mountains, at north-west by the Poiana Rusca Mountains. In the south-east, it communicates with the Petrosani basin through the Merisor pass, and in the west with the Rusca Montana basin through the Transylvanian Iron Gate pass. The geopark neighbors to south the Retezat National Park and to north-east the Cioclovina – Gradistea Muncelului Natural Park. The park has a surface of 102.392 ha, including the localities: Densus, General Berthelot, Totesti, Rachitova, Sântamaria Orlea, Sarmizegetusa, Hateg, Baru Mare, Salasu de Sus, Pui and Râu de Mori.

The oldest signs of habitation, from the Prehistoric period, were found in the caves from Ohaba – Ponor and Cioclovina; artefacts from the Dacic period are still kept at Blidaru, Costesti, Gradistea Muncelului; from the Roman period, signs of workshops and pottery-kilns were found in Silvasul de Jos. From the Medieval period dates the first documentary attestation of the Hateg Country, in the Diplome of the The Knight's of Saint John (1247), with the name of Terra Harszok. The continuity of habitation after this date is proved by series of written documents or edifices which constitute a real touristic potential yet not totally capitalized. The settlements' network is formed by 79 localities, organized in 10 communes, each with 5 – 11 villages, and one town, with a total population of 38.133 inhabitants. The general conditions provided by the relief, climate and the quality of soils have determined different land usages. Thus, in the valleys are gathered the necessary conditions for the cultivation of cereals, technical and medicinal plants, while, on the slopes fruit or animal growing is practiced.

The Biodiversity of the Hateg Country is close connected with the vegetation belts found in the region and the special habitats that correspond to each of them. Descending from the mountains towards the plain, there are five vegetation districts: 1) alpine shrubs and grasslands above 1800m with *Festuca supina*, *Vaccinium myrtillus* and other species; 2) spruce fir forests between 1300-1800m sometimes locally mixed with *Sorbus aucuparia*, *Fagus sylvatica* and *Abies alba*; 3) beech forests, often mixed with similar species such as *Tilia cordata*, *Ulmus montana*, *Fraxinus excelsior*, and in mosaic with meadows and fields; 4) sessile oak forests, steppe grasslands and fields; 5) turkey oak and Hungarian oak forests found on small areas at altitudes lower than 500m, in most cases already turned into fields and grasslands. Protected areas in the geopark: The Peșteana Marsh, The Poienii Peak, The Slivut Forest, The Narcissus Hay Fields from Nucșoara, and The Hay Fields from Pui.

The Hateg area contains one of the latest assemblages of dinosaurs in the world. The fossil remains are internationally unique and are commonly known as the 'dwarf dinosaurs of Transylvania'. Sites of interest: Sânpetru fossiliferous sites, Tustea fossiliferous site, Cârnic geologic site, Ohaba paleontologic site, Valioara paleontologic site, Stei geologic site, Silvasu de Sus fossiliferous site, Boita mine exploitation.

Among the monuments of Hateg Country covering a 2.000 year long history, the most important are: Sarmizegetusa Ulpia Traiana, the capital of the roman province Dacia, Pestean Church, built in the XIVth century, partially conserving wall paint from the XIVth century, Densus Church, controverted date of construction, most historians date it at the end of the XIIIth century, Sânpetru Church dated in the XIVth-XVth with a collection of stones from the antique roman ruins in the faade, Sântamaria Orlea Parochial Church, built at the end of the XIIIth century having its interior with one of the most beautiful fescues from South Transylvania, dated 1311A.C., Subcetate Fortress, the most important medieval fortress of the Hateg Country, Malaesti Fortress, one of the oldest fortresses of the Hateg Country, a type of military construction rarely preserved in Romania, Colt Fortress, a refuge fortress dating in XIVth century, built in the northern highlands of Retezat Mountains, also considered subject of inspiration of Jules Verne's novel "The Castle of the Carpathians", Colt's Fortress Church, built in the XIVth century, now belonging to the Colt monastery.

The ethnographic values are represented by rural localities with households safeguarding the traditional architecture, crafts and customs. Characteristic for the region is the wide celebration of the local "Nedeia", a fest that each village has once per year. The most important ethnographic elements found in the region are: the costumes, the traditional music and dancing, the local cuisine, the vernacular architecture, the shepherding traditions, local crafts mostly wood carvings, homespun.

Source: selection from [www.geopark.go.ro](http://www.geopark.go.ro) (retrieved 5.10.2009)



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## The Gastronomic man and Georgia's food culture

PhD Ulrica Söderlind

**Abstract:** *Eating and drinking are often described as activities that people practice when they need to get the life-supporting supply of nourishment that is necessary for survival. Eating and drinking are basic, right at the bottom of Maslow's hierarchy of needs. According to this model, people must first satisfy these needs before devoting energy to satisfying other needs that are higher up in the hierarchy. But are food and drink really as simple as that? In the following, first I shall analyze the factors that I consider to be very important and decisive for what, when and how people eat and drink what they do. Second I will present some part of the Georgian food culture and third test the factors (the gastronomic man) on Georgia's food culture and see what factors are important and who are not.*

**Keywords:** *diet, food culture, gastronomy, eating habits, edibility*

Let us begin by looking at the meaning of words that are connected with food and drink. The word diet, which is absolutely central, means a combination of the different kinds of foods that are consumed daily to meet a person's need for nourishment. The form of the diet can vary but should be sufficient for nutritional needs, provided the various foods are combined in a suitable way. The word diet comes from the Greek word *diaita*, meaning way of life or lifestyle. Today it has come to mean a special combination of foodstuffs, consisting usually of protein, carbohydrates, fat, vitamins, minerals, water and fibre, or roughage. Every diet should be suited to a person's age, sex and physical activity. For various reasons, some people need larger quantities of some of these components than others, or should avoid some of them altogether. Our diet consists of various kinds of foodstuffs, products that are used to make our food and drink (Nationalencyklopedin website, word diet).

Generally speaking, food is divided into two main groups: vegetables, which come from the plant kingdom, and meat, which comes from the animal kingdom. Some of these foodstuffs can be eaten without cooking, such as fruit and certain vegetables, while others need to be prepared by, for example, being baked, roasted, grilled or boiled. Now that I have come to the preparation of food, it is time to talk about the art of cooking which, in Sweden at least, has come to mean the technique and art of preparing food. In turn, the word food means what has been prepared for eating by human beings. A term we often come across in connection with food is the word gastronomy. This word comes from the Greek *gastronomia*, meaning knowledge of the stomach. It came into English via the French *gastronomie*, which was first used in France in the early 19th century. In modern usage, this word has come to mean the science of high-class cooking (Nationalencyklopedin website, word gastronomy).

### Needs

Human beings are by nature physical beings and their bodies are dependent on nutrition or food of a certain composition. The supply has to be provided fairly regularly because their ability to store food is limited. Their working capabilities depend on both physique and the supply of food (Bringéus, 1988:12).

### **Edibility**

The term eating habits holds the answer to the question why people eat what they do. Habits in themselves mean that certain food is so self-evident that people eat it continually, while rejecting that which they find foreign, or eating it with caution. Individual eating habits do not have much to do with the individual's personal taste; they are shared with those of the members of the family and the people living in the neighbourhood. The repetitive element in human eating habits is not restricted to a person's private life; it belongs to the cultural heritage of mankind and is remarkably stable. Studies of eating habits carried out in the US among Scandinavian immigrants show that they are faithful to their Scandinavian Christmas fare even in the third and fourth generation, long after they have stopped speaking their native language (Bringéus, 1988:13-16).

An important factor in the edibility of food is the technology of all the different ways of getting food: hunting, fishing, cattle farming, agriculture, industry and so on. If this broad term is applied to a more local level in the community, it becomes more limited, comprising food preparation techniques such as preserving, butter-making, cheese-making, baking, brewing, distilling and so on. These techniques are very ancient as well as being essential for life since many of nature's resources will only keep for a limited time in their natural state (Bringéus, 1988:13-16).

Ideology is another factor affecting the edibility of foodstuffs for human beings. An ideology in itself is governed by various factors like religion, medical concepts or moral concepts. In religion, it is the rites that are the visible or practical aspect of the ideology that govern to a great extent what is considered edible or not; such rites often originate in religious writings. An interest in eating habits based on medical aspects existed even in antiquity. A similar interest based on moral aspects is found in the temperance movement, which classifies wine and spirits as poisons, and not as a source of pleasure (Bringéus, 1988:13-16).

### **Availability**

The availability of raw materials and foodstuffs also plays an important role when people choose what food to eat. In turn, availability is dependent on factors like nearness, economics and regulations. The geographical location of different foodstuffs is important for what ends up on our plates. Foodstuffs that have been transported over long distances are naturally more expensive than local products, which is where the economic factor comes in. Our choice of foodstuffs and raw materials is connected with our own financial state. Finally, regulations also affect the availability of food; the food rationing system introduced during the world wars exemplifies this factor (Bringéus 1988: 17-18).

### **Senses**

Food appeals to at least four of our five senses. The first thing people eat with is their eyes, which is why food should look good and appetizing. The smell of food can arouse feelings of desire when you are hungry and feelings of displeasure when you are full up or if the food smells nasty. Beverages like wine can also be enjoyed via their bouquet at the beginning of a meal. Our sense of feeling tells us whether the food is hot, cold or tepid. When we chew food, we find out whether it is hard, soft, tough or tender. All these variants play a part in the right context. Our sense of taste tells us about the inner qualities of the food: whether it is sweet, salty, bitter or sour, mild or strong. All these variants are also relevant, but only in a certain order. Salty food must come first and sweet food last (Bringéus, 1988:30-31).

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### **Gastronomic reflections**

According to Brillat-Savarin, gastronomy is an organised science that is related to other sciences such as: Natural science, because of its classification of nutritious substances; Physics, because of its investigation of composition and properties; Chemistry, because of the analyses and solutions it provides. Culinary science, because it deals with the art of preparing food and making it enjoyable to the taste; Commerce, because of its discovery of methods for purchasing the materials used as cheaply as possible and disposing of what is for sale as advantageously as possible; Economics, because of the sources of income it provides for the state and the ways of exchanging goods that it opens up for people. Over and above all that, gastronomy dominates people's lives from the cradle to the grave, as well as affecting all the social classes. The material objects of gastronomy are everything that can be eaten. The first aim of gastronomy is to keep the individual on his or her feet (Brillat-Savarin, 1958: 15-16).

### **Gastronomy as a science**

#### **Physiological taste research**

Perceptions of taste are aroused only when special sensory organs in the tongue, palate and throat are stimulated. Because of their appearance under the microscope, these organs are called taste buds. They consist of large, oblong cells that have protoplasmic shoots directed towards the narrow, outer taste pores. These taste cells and their fine shoots have a relatively short life — only a couple of weeks. They are replaced continuously as undifferentiated epithelial cells surrounding the taste buds develop. When these simple cells touch the specific taste nerve fibres, they are transformed into taste cells, with their microvilli and special response patterns to various kinds of stimulation. If the taste nerves are cut off, all the taste buds in the nerves' area of distribution on the tongue disappear and return only when the taste nerve fibres on the tongue have regrown (Zotterman, 1969:11-12).

As for the signals in the taste nerves, the taste nerve fibres run from the front three-quarters of the tongue in the nerve's large sensory nerve. However, these fibres differ from other nerve fibres in the thick nerve trunk, forming a thin nerve which, after a short distance, runs through its own bone canal in the middle ear and passes the anvil, after which it joins the facial motor nerve and passes through that nerve's bone canal to the brainstem. Communication between the taste buds and the brain takes place via nerve fibres that send a very simple code to the brain — it has only one signal and it reaches the brain without any changes or interference. There are, however, very great individual variations in taste; that is, the way taste is perceived differs from one person to another (Zotterman, 1969:16-20).

The fact that eating is not merely something physiological but also to a high degree a social act makes food and drink an intermediary of social relations. One and the same dish will not taste differently just because it has been prepared differently but because its special taste is also determined by its social context, that is, who prepared the food, who we eat the food with and the situation in which we eat the meal (Andersson, 1980:28-29).

Recent research has shown that, in addition to the four basic tastes, salty, sour, sweet and bitter, humans can identify a fifth taste. The Japanese have known about this fifth basic taste for a long time and call it "unami", meaning delicious, piquant. This fifth taste has to do with the taste of amino acids, for example monosodium glutamate (MNG). MNG has been used to reinforce tastes in Asia for centuries and is a normal additive in soups, for example. Scientists have now succeeded in finding receptors on the tongue that react to amino

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acids, that is, unami, and that this basic taste plays a large part in the way people appreciate wine (vin & spirit journalen 3/2002:55).

### **The physiology of thirst**

When you have a deficit of water in your body, you feel thirsty, which creates a need to drink. If this is not heeded in time, it can lead to disaster. You can go without food for weeks, but without liquids you die after only a few days. Thirst is included among the so-called general feelings. The desire to drink is triggered by a limited area in the middle brain, where there are special nerves that are sensitive to dehydration. When the water content in the blood falls, these nerves send a signal to the corpus callosum, which results in a conscious need to drink; the corpus callosum plays a vital part here, since it has been shown that animals without a cerebrum do not drink spontaneously. Only when the body's need of liquids is satisfied does thirst disappear; it is also possible to quench burning thirst very temporarily by drinking a liquid, but if the need of liquids in the body is not satisfied, you soon feel thirsty again. This means that thirst is inhibited in two principally different ways. The act of drinking itself triggers nerve impulses in various sensory nerves in the oral cavity, throat and stomach. These impulses inhibit the feeling of thirst temporarily long before the liquid has had time to be absorbed and affect the blood's osmotic pressure. Not until enough liquid has been absorbed for the blood's water content to return to normal does the feeling of thirst normally disappear (Zotterman 1969:21-26).

### **Sociological gastronomy**

#### **Food culture**

It is a physiological and biological fact that all living creatures have to eat and drink to survive. Another physiological fact is that a creature cannot eat or drink just anything. Certain organisms or species can assimilate a broad spectrum of foodstuffs while others can only live on one type of food. Human beings can, in a physiological sense, assimilate a large number of foodstuffs, which makes us omnivorous. Nevertheless, there is a great deal that the human body does not tolerate; for example, no one can drink a litre of 96 percent alcohol and survive. Thus there are physiological limitations to what can be used as human food and what cannot be used. These limits are set by nature. Such limits are broader than those set by human culture. Every society selects a part of what, according to nature, can be considered human food. This cultural definition of what can or cannot be considered food (that is, food and drink) is one of society's fundamental norms. These norms or imprinting are something that every person is exposed to from a very early age (Andersson 1980:13-14).

The culturally defined foodstuffs vary from one society to another, so food is part of a country's cultural character. The food culture of a country or a people is not uniform but has regional variations. These variations can be based on geography and/or economics. Societies have for a long time had two parallel cuisines. Usually one of them belongs to the broad majority of the population. From a historical point of view, this cuisine only changed marginally over the years until the arrival of refrigerating and freezing technology. The other cuisine used to belong to the elite of society — the upper classes living both in towns and in the country. This cuisine has been more receptive to variations in what is eaten and the influences have often come from abroad. The eating habits of the upper classes gradually seeped down to the cuisine of the broad majority, which in turn meant that the upper classes adopted new food habits since the previous ones were no longer reserved for them (Swahn 2000:13-15)..

As if it was not enough for there to be parallel cuisines for different social classes, people have also divided up the dishes that can be prepared in their kitchens into everyday food and festive food. Festivals can be of a sad kind, such as a funeral, or of a happy kind, such as a birthday. The different ways in which meals are prepared can be traced far back in time; archaeological excavations in Sweden have traced them as far back as to the early Middle Ages (Swahn, 2000:13-15, Isaksson, 2003:272-285). However, this is presumably not unique for Sweden but rather a global phenomenon. It will be interesting to see if future investigations can prove the existence of this phenomenon in even earlier times.

Food cultures are created not only by geographical conditions but also by consumption, or perhaps the other way round, that everything people eat and drink appears as consumption. Thoughts about consumption go far back in history and have changed in time, but there are certain concepts that have always been there. One of them is that people's needs expand and our wish to meet this expansion need drives economic development. This means that consumption in itself is a kind of arena for social competition and identity formation. In addition, the coveted value of more exclusive consumption runs the continual risk of being weakened by people's search for distinguishing markers (Söderberg, 2002:216, Söderlind 2003:112).

Food culture may be poor or rich, and consist of a very few dishes or an abundance of them. Regardless of poverty or abundance, there are very strict rules/norms in all cultures about what can be considered a dish or a food element. This division into what can be eaten and what cannot be eaten is both fundamental and extremely emotionally charged. An example is that during famine years in Sweden (historically speaking) people did not eat edible fungi because people in the society of that time did not consider that fungi had any connection at all with food. People starved rather than eat fungi. However, food culture does not consist merely of a number of food elements; it not only has limited boundaries but also has strict rules within the culture itself as to what food elements can be combined only in a certain way to be counted as a dish. For example, in Sweden, meatballs, lingonberry jam, sauce and potatoes are an accepted combination. Recipes are the grammar of food. The fact that food forms part of culture and is not just part of nature is a specific feature of the human race. Mankind's ability to move from being a nature child to being civilised is expressed in its ability to modify the world according to its own intentions. Regarding food, the move from nature to culture takes place when people prepare their food, cultivating and processing it. Food acquires a cultural hallmark with the aid of various utensils like pots and pans and the like. Making food is a cultural act in which a connection occurs between the food and the person preparing it. In turn, a prepared meal is a dialogue between that person and the person who eats it. Meals/dishes are thus a form of communication in which the eater eats more than what is on the plate (Andersson, 1980- 14-16).

Because our relationship to food is formed early in life (when we are still infants), tastes are people's most conservative preferences. Eating habits are the last ones we change. This becomes very evident when we move from one country to another. We learn the new country's language and customs but we prefer to eat the food we grew up with. Eating habits are something that develops in a socioeconomic and cultural environment and are what is easiest to take from our own culture when we move to a new country. In the big cities of southern countries, the meal schedule in the summer often consists of an almost nonexistent breakfast, a small lunch, and a largish snack of biscuits, sandwiches and the like eaten around 6 –7 p.m. The big dinner is eaten after 9 p.m.. In the countryside in these countries, the day begins very early with a big breakfast, and during the day there is a large number of snacks before the evening, when the main meal of the day is eaten. When an immigrant meets the new country's customs and eating habits, his or her eating habits change on two levels. The first level involves changing the traditional combination of foodstuffs; in other words, the gastronomy itself changes. Because new foodstuffs are incorporated into the diet, the meals

are given a different nutritional content than before. Level two is connected with the mealtimes. With some delay, the immigrant starts to choose new foodstuffs and the mealtimes gradually begin to agree with the times at which the host country eats (Kocktürk-Runefors 1990: 391, Kocktürk 1999:12).

Food is classified as staple food and supplementary food. Staple food is, for example, bread, potatoes, rice, pasta and the like, while supplementary food is, for example, various kinds of meat, dairy products and vegetables. The gastronomic tradition of every culture comprises and is defined by its foodstuffs. These are seen to be the “real” foodstuffs that the people have a strong emotional bond with, since they are the ones they know best. Since there is this strong bond between the people and their foodstuffs, they are only to a very limited extent affected by migration. People’s bonds to supplementary food are not equally strong as they are not so necessary for the survival and continuance of the traditional eating habits. Supplementary food is usually used to reinforce the taste of the staple food. This group of foodstuffs is influenced almost immediately after migration as people do not have such a strong bond with them. Studies have shown that the consumption of sweet products, new sources of fat, snacks, drinks, icecream and so on increases among immigrants, who otherwise continue to choose the same staple foods and the same kinds of meat, dairy products and vegetables as they used in their home countries (Kocktürk 1999:392-395). .

This means that the eating habits of immigrants change in a fixed order, within which cultural/psychological bonding and reinforced taste form two extreme poles along a continuum. When a traditional meal is to be made in the new country, the choice of foodstuffs swings from the cultural/psychological pole to the pole that concerns taste. Staple foods that are known are retained as they provide a sense of security in a foreign environment. When new foodstuffs are added to the diet, the selection mechanism moves in the other direction; the aspect of taste is given priority. Immigrants introduce the host country’s most tasty foodstuffs first, like sweets, nuts and new sources of fat. After sweets and fats have been incorporated, foodstuffs that have a stronger cultural bond are selected, like meat and dairy products. Staple foods are those that are changed last, if ever. Immigrants’ adaptation of their diet to the new culture is total and complete only when the immigrant population completely accepts the new country’s staple foods. However, immigrant groups retain their staple foods for several generations, so total adaptation to a new diet takes a very long time, even up to 100 years (Kocktürk 1999:392-395).

However, it is not just eating habits that change after migration; so do meal times. This is because, when the pattern of work and leisure time changes, meal times also change for immigrants so that they fit in with the pattern that exists in the new host country. Here, too, a feeling of security and identification with their culture plays an important and strong role in immigrant groups. Thus the meal that is most strongly charged with emotion is changed last, while the meals that are more neutral or connected with changes in taste are changed first. The first change is that the eating of snacks between meals and the consumption of soft drinks increases rapidly among newly arrived immigrants (with negative consequences for their teeth). The second change occurs in the meal that is considered least culturally significant, namely breakfast. Immigrants come into contact with the host country’s eating traditions through this meal. The evening meal or the occasion when the family get together is reserved in order to strengthen the feelings of family and security in each of the family members. In other words, immigrant families prefer their home country’s food for dinner, and this meal changes last. Looking at the way the diet changes during the week, it is the working days that are affected first, while Sundays are reserved for the eating habits of the home country. The food eaten at festivals is that which changes absolutely last (Kocktürk 1999:392-395).

### **Religious beliefs and meals**



Festive meals in a country are often governed by ancient religious beliefs and traditions. In this respect, religion stands for an ideology that controls the choice of food at these festivals. In Sweden, this is exemplified by the eating of "semlor" (Lenten cream buns) before Easter. This tradition dates back to the Catholic celebration of Easter, beginning with 40 days of fasting during Lent, preceded by Shrove Tuesday, which is the last day before Lent. This was the day of feasting when people gorged themselves with sweetmeats of various kinds before the fasting started. Fasting before festivals takes place/has taken place in many religions. Religious fasting seldom involves total abstinence from food. What usually happens is that the practising individual eats fewer calories than the normal intake; in other words, people abstain from meat, fat and sweets. There is, however, a stricter form of religious fasting that practises abstinence from all animal products, sometimes called ascetic fasting. Very often religion is more than just a faith in God for religious people; it permeates their whole existence so that they conduct their life according to the rules of the religion. Most religions have rules about how people should and must deal with their food. These rules regulate what can be eaten and what cannot be eaten, how animals should be treated when they are slaughtered and how foodstuffs should be handled and prepared (Westblom-Jonsson, 1997:19-21).

Even those people who were not members of an established religion but believed in the so-called folklore were governed by these eating rules. Belief in fate plays a central role in folklore, which means that the ideas that control eating can be seen as a way of appeasing or controlling fate. Some researchers claim that the custom of taking a gift with you when you are invited to a family is based on the idea that it was harmful to come empty-handed to a woman who was about to give birth. The food that was taken to women who were lying in may be seen as an offering to the powers of birth and fate. After a child had been christened, it had to be given bread so that bread would never be lacking in the child's future life. That is why bread was also placed in its swaddling clothes. If a child had been weaned, it was not allowed to breastfeed again since it would then run the serious risk of becoming a child that brought bad luck. In addition, it was considered that what a child ate could shape its character. If its mother ate and drank a lot while she was breastfeeding, the child would become a glutton and have a big appetite later in life. If it ate off a knife, it would learn to be a thief. If it ate pork from the pig's rump, it would stop growing, and if it ate hare's heart, it would be timid. Children should eat up everything on their plate; the last bits were called the fun bits or the power bits. It was also believed that if these fun or power bits fell into the wrong hands, the child could come to harm, because it was thought that the remains on the plate were a part of the child itself. If the whole plate was eaten up, the last cake on the cake dish could not be eaten because then the family would end up in poverty (Liukko, 1996:10-11).

#### **Table manners, seating lists and tableware**

In the late 19th century and at the turn of the century, table manners were the very symbol of the cultivated person, in which the use of cutlery played a very central role. You were not allowed to eat any dish with the hands only, not even a sandwich. However, the use of cutlery is not the only sign of cultivation at the dining table. Table manners as such form a complete institution that trains the whole body and mealtimes as interpersonal operations. You must not sit in any old way on your chair but at the right angle and facing straight forward; you must not lean on the table with your arms or elbows; you must not chew with your mouth open; and you must not slurp or smack your lips (Anderson, 1980:20-21)..

Table seating in most cultures has usually shown the guests' relative rank. During the Renaissance and the Baroque Period, for example, royalty sat at their own table. When King Gustav III of Sweden travelled to Italy, he was accompanied by the not yet ennobled Johan Tobias Sergel, who had to eat with the servants, because only the nobility were allowed to sit at the king's table. In peasant homes, men and women sat on opposite



sides of the table; in fact, it was often only the men who sat down to table to eat, while the women stood and ate. The master's self-evident place was at the head of the table. The seating of the guests of honour at large dinners has changed over the years; for many years there was an upper and finer end and a lower end for the less important guests. This system changed in the 19th century, however, when the host and hostess sat opposite each other at the middle of the table with the guests of honour around them (Swahn 1999:30).

Tablecloths were introduced in the Middle Ages at the royal court and in the homes of aristocrats, clergymen and rich merchants. Laying the table was such an important part of a feast that special table-layers were needed. In the 15th century, the table was covered with several patterned cloths placed on top of each other. The bottom one was a thick cloth, a piece of tapestry or gold brocade that reached right down to the floor on all sides. On top of this was a white cloth that had been mangled so that a square pattern was created. On top of this cloth yet another white cloth was laid that was shorter than the other one and mangled with another pattern. The top cloth was changed between each course and was also used as a napkin for the guests to wipe their hands and mouth on. At the court of Erik XIV in 1562, long napkins were introduced, which were later replaced by individual napkins. The members of the Swedish royal family still have an extra small cloth placed under their covers, a reminder that those who sat at the same table could underline the difference in rank by not eating on the same cloth. When peasants were visited by the priest, a special priest's cloth was placed on the table under his cover. At a peasant family's table, the difference in rank between the guests could be emphasized by the host and the guests eating at a table with a cloth on it while the end of the table where the servants sat had no cloth. Until the 1930s, white damask was in principle the most usual type of tablecloth in most social classes, but then colored linen cloth with simply folded napkins became fashionable. Since the Second World War, more brightly colored tablecloths have become the rule (Swahn 1999:28-29).

A long napkin was a cloth that usually ran the whole length of the table. It was placed so that the plates lay on one half while the other half was folded over them, so that they were not be dirtied by things falling down from the ceiling — which often had holes in it — even though the table was laid several days before the dinner. When the guests came to the table, the upper half of the cloth was folded down over their knees and used as a Napkin (Swahn 1999:153).

The hand towel that was used during the Middle Ages for drying your hands after washing them before the meal can be seen as a predecessor to the individual napkin. In the mid-16th century, individual napkins became prevalent on the continent, and in Sweden they were first used at the court of Erik XIV; in 1562 he had 150 such napkins. To begin with, the napkin was laid across the left arm or shoulder, but when clothes with large ruffles came into fashion, it was tied round the neck. In the 18th century, the gentlemen used to tuck it into their waistcoat while the ladies used a pin or brooch to fasten it to one shoulder or in their décolletage. This custom continued into the 19th century, but in the 20th century napkins were placed over the knees. In the 19th century, a napkin was about 80 cm square but in the 20th century it decreased to about 50 cm. The way napkins were folded has always been an important part of their use. This custom was introduced in the 16th century when forks gave napkins a new role/function as a status symbol instead of just being a necessary wiping cloth. Napkin rings and napkin holders started to appear around the 1840s. These were used mainly in middle-class homes in towns, while the upper classes used their napkins only once before they were washed, and laborers and peasants did not use them at all. There are napkins preserved in Sweden that were used in peasant homes, but they were used as shawls or for holding the prayer book when the peasants went to church. Rich farmers began to use napkins in the 1870s in Sweden, but these were mostly used for decoration under the bridal couple's or the priest's plates at weddings. When the guests in

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these circles started to be provided with napkins, they often put them aside so as not to trouble the hostess with the need to wash them (Swahn, 1999:220-221).

In the Middle Ages, it was customary to use a slice of bread as a plate and the meal was rounded off by eating it. There were also rectangular wooden dishes that two or three people could put on their knees and eat off together. It was from these wooden dishes that both individual wooden plates (first square and later round) and table tops with a frame developed. The development from bread plates to metal or wooden dishes took place in the 15th century among the upper classes. During the reign of Erik XIV, wooden dishes disappeared from the Swedish court and were replaced by pewter or silver platters. In the 17th century, the new aristocracy could afford silver plates. Pewter continued to be the material used by the upper- middle class well into the 18th century and as late as the 17th century the lesser nobility were still using wooden plates for everyday use. During the 17th century, Sweden started to import Dutch plates made of glazed earthenware, and these became common among the upper classes during the 18th century. The difference between deep plates and flat plates emerged during the 17th century. In 1726, Sweden started its own ceramic industry when Rörstrand opened its glazed earthenware factory. In the 18th century, porcelain plates also started to be imported into Sweden thanks to the Swedish East India Company. Not long after, Sweden began its own production of porcelain (Swahn, 1999:242-243).

The spoon is the oldest eating utensil we know. A find of pottery spoons was made in Sweden that has been dated to the Stone Age. Older spoons have been found around the world that is made from bones. Silver spoons were first made in Sweden in the Middle Ages. The farmers and merchants who bought these spoons did so not to have them for everyday use but to use them as schnapps spoons at big dinners; or perhaps they served as an investment and status symbol. Those who could not afford silver spoons did with similarly shaped spoons made of brass. In the 16th century, you often took your own spoon with you in a small case or in your pocket when you went to a party. Silver spoons have changed in shape over the course of time; the earliest ones had a round bowl and a short, often cylindrical handle, topped with a large knob or, in the Middle Ages, the figure of a saint. Towards the end of the 17th century, a new type was introduced, the rat-tail spoon. This had a longer and flatter handle which was joined to an egg-shaped bowl in a characteristic way: The handle was pulled to a point which was soldered to the underside of the bowl. To begin with, this joint continued a long way under the bowl, looking like a rat's tail, but during the 18th century it shrank and disappeared. When, during the 18th century, spoons and other eating utensils started to be made by pressing metal, a rich variety of models developed (Swahn, 1999: 223-224).

The knife was introduced as a part of table cutlery towards the end of the Middle Ages, but it was not common until the 17th century, and to start with only at court and among the aristocracy, when it began to be included in the case that guests took to meals. For a long time, table knives had a blade of iron while the handle was of silver or bone of some sort, often with enamel inlays.. Among the upper classes, mass-produced table knives became common in the 18th century. The oldest type of table knife, like other knives, had a point so that food could be speared, but this became unnecessary when the fork came into use (Swahn, 1999:124).

Table forks gradually started to come into use at the courts of the northern Italian principalities and republics in the 14th and 15th centuries, but they were not a natural part of tableware until the 16th century, when they reached Sweden at the court of Erik XIV. Forks were usually placed alongside a table knife in the elegant cutlery cases that upper-class people took to parties. The lower classes were still without forks. In Germany, for example, there was some opposition to this new luxury item in the 16th century because superstitious

people connected them with bad luck and black magic, probably on account of their pointed prongs (everything sharp was dangerous in folklore). It was not only impolite to point at someone with your fork; you might also in some magical way harm the person you pointed at, and the clink of a fork could summon up the devil. In the aristocracy and the upper-middle class, forks spread as eating utensils during the 17th century, but it was not until the 19th century that they became common among peasants and labourers. The number of prongs on a fork has changed over the years. During the Renaissance and the Baroque Period, they had two steel prongs and a handle of bone that was often inlaid with or made of silver, often gilded. In the 18th century, the forks made of pressed silver had three prongs and in the 19th century came the fourth prong. When, during the 19th century, the lower classes started to use forks for eating, they were often made of steel and had a wooden handle (Swahn, 1999:76-77). Marine-archaeological finds from the warship Kronan, which sank off Öland in 1676, show that there were four-pronged forks in use on Swedish ships as early as that (personal communication, Einarsson, Lars, head of research Kalmar läns museum, Sweden).

Drinking vessels, like spoons, are very old and a self-evident part of every cultural inventory. Drinking vessels were first made as status symbols and for ceremonial use; in everyday life, people made do for a long time with what nature could offer – mussel shells and gourds, for example. During the Renaissance, drinking horns were inlaid with precious metals. Wood, metal, glass and ceramics were the materials used for a large number of basic designs. The wide, open, wooden drinking bowl appeared in Scandinavia during the Viking era, and this type survived for many years among Swedish peasants; you took up your drink from the bowl with a cup or a ladle. The cylindrical or slightly conical goblet became common in Sweden at the end of the Middle Ages and was made of pewter, silver or even wood. Those made of wood were shaped on a lathe and were very common in the 16th century. Glass goblets were imported from the period of the Great Migration up to the 16th century. During the 16th century, these glass goblets became cheap mass goods; 35,000 of them were smashed at Kristian IV's coronation celebrations. Ceramic mugs or cups with a handle came much later. The earliest coffee services had no handle and became popular in the mid-18th century. Goblets with a high foot were typical of the Middle Ages and could also be made of wood. Goblets with a lid and handle became common during the Renaissance. Tankards with a handle and a lid were originally serving vessels but developed into individual drinking vessels that were very popular in the Baroque Period. These tankards were copied by the peasantry in wood. Ceramic tankards were first made in western Germany in the 16th century and were used typically in taverns until glass and porcelain had their breakthrough in the 18th century (Swahn, 1999:56-57).

Schnapps cups were small drinking vessels made of silver, pewter or wood, hemispherical in shape but with a handle and a foot. They looked most like coffee cups with a handle. These cups are mentioned in written records in the late 17th century and were used for drinking aquavit (Swahn 1999:236). Marinearchaeological finds from the warship Vasa show that such schnapps cups were in use earlier than the late 17th century. The Vasa sank in 1628 and among the artefacts found on board were schnapps cups (Söderlind 2006: 232). A tumbler was also a small, hemispherical cup for aquavit, made of silver, pewter, brass or glass. It was constructed so that it returned to an upright position if it was tipped over. It often had a silver coin in the bottom and was popular in the 18th and 19th centuries. Yet another vessel that was made for drinking aquavit was the "öronskål", a little bowl with a handle. These were usually made of silver. A "snibbskål" was a round drinking vessel with four lips, that is, four corners just under the rim of the bowl. These bowls were often painted red and are known to have existed as early as the 16th century (Swahn, 1999:228).

## **Meals as events**

It is rather a complicated matter to speak about meals as events since different people interpret an event in different ways. Nevertheless, there are certain factors that those who arrange a meal utilise in order to create an experience from and round the meal. The factors they work with are colour, light, sound and design (Barnekow & Östberg, 2000:18).

### **Colour**

Colour is something that all people perceive differently because the eye sees light in different ways. When you see a colour, it is the result of different light wavelengths. The eye perceives these as different colours depending on the wavelength. Since all people perceive colours differently, a standard colour language has been developed. The system most commonly used today is the Swedish Natural Colour System (NCS). This uses six elementary colours: yellow, red, blue, green, white and black. The system describes a specific shade and the elementary colours are codes that function when it is necessary to denote an exact shade of colour. In chromatics, one speaks of hot and cold colours. Red and yellow are hot colours, blue and green are cold colours. There are objections, however, to calling red a hot colour as it is often experienced as cold, depending on the context. Chromatics says that the hot colours lie between the yellow and the red elementary colours in the colour circle and the cold colours between blue and green. Hot colours are experienced as energising and cold ones as soothing. When combining colours, it is important to be aware that colour setting can have unexpected consequences and that the colours take on a different shade than was intended. If this phenomenon is not taken into account, there may be unfortunate results, for example when putting together a menu for a restaurant. Anyone creating a mealtime experience ought to think in terms of colours so that it is an experience for all the senses. With the help of the right colours, it is possible to enhance the experience planned for the guests and to create an ambience around the meal itself (Barnekow & Östberg, 2000:18-19, 21).

Red is perceived both as a stimulating colour and as a sensuous colour but it can also be seen as a warning colour. Red in combination with yellow is thought to increase the guests' appetites, whereas red food alone is thought to give them more energy and greater vitality. Some people think that, to avoid giving the guests high blood pressure, increased muscular strength and strong reactions, meals should not be served in a room that is furnished totally in red. Yellow is considered to be the colour of the sun, which is felt to be warm and hospitable. It is also thought to raise the level of alertness and to sharpen people's intelligence. In combination with black, yellow gives a warning. Green is the colour of hope, of spring and of growth. It creates a feeling of calm and security. Green is felt to be pleasant. Blue is the symbol of immortality. It is cool and creates calm as well as being emotionally stimulating. Blue can also give a feeling of coldness, making people think of shade. Thus a good composition of colours with well-balanced harmonies and colour chords for sight, hearing, taste and smell can enhance the guests' impressions, moods and experiences of the meal (Barnekow & Östberg, 2000:20-2, 36).

### **Light**

Light is much more than just decoration; it affects the way a room is used and how an atmosphere is created when there is no daylight. Illumination affects the way we feel and is of great importance for the way we experience our surroundings as well as for the overall impression we get. Thus there are two different sources of light, artificial light and daylight. Choosing the right source of light for an environment is decisive for the success of the lighting. The choice of light also determines the character and quality of a room. There is a belief that the best illumination/source of light is that which cannot be directly observed; in other words, the source of light should not be noticed, it should only create a certain atmosphere in the room. People's

attention is drawn to bright sources of light and these create a feeling of pleasure and have an energising effect; strong-coloured and moving illumination is felt to be unpleasant. When choosing the lighting for a room in which meals are to be taken, it is important to start with the room's function, that is, ceiling, walls, shapes and materials. Outdoor lighting is also important as it follows the guests all the way until they are seated at the table (Barnekow & Östberg, 2000: 23-24, 34).

### **Sound**

Since sound consists of mechanical vibrations in the air that the ear perceives, there are two sorts of sound that people hear: what is called music, that is, regular oscillations, and what is called noise, that is, irregular oscillations. A restaurant where music is played at a high tempo gets the staff to provide swifter service; this effect is part of the concept of fast-food chains. It is vital that the volume of the music does not drown the guests' conversation. The acoustics of a room are important since poor acoustics will disturb the guests and affect their overall enjoyment of the meal. The sound that reaches the human ear consists in part of words, but the rest is reflections from walls, floor, ceiling and furnishings. When these reflections do not reach the ear at the same time, acoustic problems occur (Barnekow & Östberg, 2000: 26- 27).

### **Design**

The guests' behaviour is influenced by the design of the room where the meal is eaten. Meals have become a social and cultural meeting place, which means that the meal and art go hand in hand. The combination of form, colour and lighting makes a whole that communicates feelings. Thus the choice of materials, furniture, porcelain, glass and cutlery is important as they are what govern how the guests perceive the room with their senses. Just as there are hot and cold colours, there are hot and cold materials; wood is felt to be warm while stainless steel is felt to be cold. How the porcelain, glass and cutlery used at a meal are designed plays a major part in the total meal experience. In other words, the cutlery has to function, both from an ergonomic view and as emotional expression; the right sort of glass has to be used for the right drink and so on (Barnekow & Östberg, 2000: 28-29).

### **Menus**

The French word menu literally means "little table", but this "little table" has come to mean the bill of fare in a restaurant. The phrase à la carte on a menu literally means "according to the card" and describes the dishes that can be ordered. It is a list of all the dishes available with the price given for each one. A guest who chooses from the à la carte menu is free to compose his or her own meal by selecting dishes from this menu. An à la carte menu is often complementary to the day's menu, offering the guests greater variation, but the dishes are usually rather more expensive than those on the day's menu. An à la carte menu is normally composed and printed to last a long time, listing the starters, main dishes and desserts that the cuisine can offer. This type of menu can be very extensive at large restaurants, catering for almost every kind of taste (Halling, 1994:74).

The phrase plat du jour means today's special, often at a low price and served quickly. Having this kind of dish on the menu makes work in the kitchen more rational and effective and the chef can utilise what is on the market that particular day. Prix fixe on the menu means that there is a combination of dishes to be had at a fixed price. This type of menu is most common on Sundays and for dinner-dances. A menu with the word *arrangé* printed on it tells the guests that that the meal is one that has been ordered. Such specially arranged meals are ordered in advance from the head waiter. They can take various forms, but the simplest type consists of a starter and a main course, which can be added to with other dishes and drinks (Halling, 1994:74-75).

The arrangement of the dishes on the menu should be as simple as possible, clear, systematic and easy to read. The number of courses on a menu may vary, but regardless of the number, they should come in the following order: 1. cold starters, 2. hot starters, 3. soups, 4. egg dishes, 5. fish dishes, 6. meat dishes, 7. poultry dishes, 8. pastry dishes, 9. vegetable dishes, 10. desserts. If there are several fish, meat or poultry dishes on a menu, they should follow the golden rule: boiled before roast, whole before minced and light before dark (Halling, 1994:78-79).

The descriptions above show that eating and drinking is quite a complicated business; what people should choose to eat and drink on different occasions is not all that simple. A good deal of research has been carried out – and is still being carried out – on food and drink. In the above, we have tried to point out the factors that I consider important for the choice of food and drink. In short, there are many factors involved: needs, edibility, availability, the human senses, philosophical ideas, geographical and mental frontiers, economics, nurture from the very earliest years, ideology, social structure, social classes, gender, utensils and enjoyment. All this gets even more complicated when you realize that the above factors do not necessarily have the same meaning for everyone within a limited geographical area. Food culture also consists of aspects like diet, foodstuffs, culinary art and nutrition. Thinking of the original meaning of the word gastronomy (knowledge of the stomach or a summary of the rules governing the intake of food), I believe that the complexity described above can be summed up as follows: the eating and drinking man is in fact the gastronomic man.

### **Articol I. Georgia<sup>i</sup>**

Georgia (საქართველო, Sakartvelo) is a transcontinental country in the Caucasus region, situated at the dividing line between Europe and Asia. The country's geographical location with borders to the Black Sea, the modern Russian Federation, Turkey, Armenia, and Azerbaijan, has meant that through pre-history and history, it has been a crossroads between the West and the East.

Due to its location, the country has been invaded several times over the course of history, by, for example, the Greeks, Persians, and the Ottomans, to name but a few. The invasions mean that much of the antique and Islamic worldview still exists at the country's borders—which is a unique cultural situation. The invasions have also left their footprints on Georgia's food- and drinking traditions and habits. This has resulted in the existence of many different gastronomical and culinary branches in the foodways of Georgia today.

Consequently, I will concentrate on some staple foods of Georgia, such as wine, bread, *Khachapuri* and *Khinkali*. My research is interdisciplinary as it is based on archaeological artifacts, historical sources, photographic documentation, oral sources, and field work.

Georgia was one of the earliest Christian countries in the world which has afforded wine a certain role in the transition from pre-history into the Christian era. Wine still holds a very special place in the hearts and minds of the Georgian people. I will thus deal first of all with wine.

### **Wine**



The beginning of human civilizations is closely connected to the development of agriculture and the history of cultivated plants, and Georgia played a crucial role in this process. One of the reasons for that is that wine culture in Georgia can be traced to early prehistoric times (Rusishvili, 2007:5, 13). Research of linguists indicates that the root of the Indo-European term for 'wine' - *u(e/o) iano* which means wine – might derive from the Georgian word ღვინო [Rvino] (Gamkrelidze, Ivanov, 1984:647, 649-51). These linguists are of the opinion that the word would have been transferred into the Proto-Indo-European language before this language started to separate into its various branches in the fourth millenium B.C. The separation transformed the word in different ways, leading to the English 'wine', Italian 'wino', and Russian 'vino', to give but a few examples (Gamkrelidze, Ivanov, 1984:649-651, McGovern, 2003:33-34). The archaeological discovery of cultivated vines in Georgia supports the linguistic theory of the origin of the word 'wine'. Cultivated grape pips have been found on the archaeological site 'Shulaveris Gora' (situated in the Transcaucasus region of modern Georgia).

The site is dated to sixth – fourth millenium B.C. and belongs to the Shulaveri-Shomu Tepe chalcolithic culture (Kkushnareva, Chubinishvili 1970:170, Rusishvili 2007:11-12, McGovern 2003:23). Even if there is a large time span for the culture itself **C14** (Radiocarbon dating is a radiometric dating method that uses (<sup>14</sup>C) to determine the age of carbonaceous materials up to about 60,000 years old) analyses of the cultural layer where the pips were found gives a dating of 6625±210 years millenium B.C. (Kkushnareva & Chubinishvili 1970:170). At other sites belonging to the Shulaveri-Shomu Tepe culture a ceramic vessel which had ornamentation in relief was found. The ornamentation appears to show grapes and could very well be the earliest 'label' for grapes and wine that we know of today. In the vessel also sediment was found that after analysis showed too consisted of wine residue (Hansen, Mirtshkhulava, Guram, Bastert-Lamprichs, 2007: 13-19, Chilashvili, 2004:47-49, Sotles, 1999:58-59).

After the initial evidence of cultivated grapes and of wine-making. cultivated grape pips were found in many other archaeological sites dating to the Bronze Age, Antiquity, and the Middle Ages. This indicates a situation of continuity in the cultivating grapes of Georgia (Rusishvili 2007:13-35). It is not until the Bronze Age that table grapes for eating are found which indicates that humans in the earlier chalcolithic societies cultivated vines and grapes for wine-making and not for eating. Wine was, therefore, the primary reason why the vine was cultivated (Personal communication, Rushvili, Nana).

It is not only grape pips that appear in the archaeological sites that can be linked to wine. At a site belonging to the Trialeti Culture (third – second millenium B.C.) a superb example of toreutic art, a silver wine cup richly decorated, was found. This cup has become known as the "Silver Cup Of Trialeti" (Kushnareva & Chubinishvili 1970:16). There is ongoing debate about what the scene depicted on the cup means. Some researchers state that it is a depiction of the God Mithra surrounded by worshipers, and of the tree of life. Others, however, are of the opinion that the depiction is that of the God Mithra surrounded by hops and worshippers drinking haoma (Kuftin, 1941:84, Jafaridze, 1981:15, Chilashvili, 2004: 67-63). Mithra means 'contact' or 'pact' and these terms are closely associated with a God known among the Persians around 1200 B.C. Mithra was understood as a personification of the sun and a God of justice. The God Mithra is often described as a forerunner of the God Mithras who became known as a very important God in Greece and Rome during Antiquity. The people of Georgia worked not only in silver during their middle Bronze Age period; they also mastered the art of working in gold as is evident from the discovery of a wine cup made of a gold sheet dating from that period. The cup, which has a double wall and hollow legs, is richly decorated



with sardonic, lapis lazuli, red jasper, agate, and amber stones. The cup is a stunning example of glass- pasted filigree work (Jafardidze, 1981:52).

During an archaeological excavation in 2006 (Mtskheta, the old capital of Georgia) a small bronze figurine depicting a 'Tamada', holding a drinking horn in his right hand, was found. The figurine is dated to the beginning of first millennium B.C.(Japaridze, 2006:23). To this day; the Tamada is the toastmaster at banquets or special dinners in Georgia. The occasions on which the Tamada is present are called '*supra*' (table).The Tamada's main task at the *supra* is to salute the toasts. The Tamada is elected at the beginning of the *supra* and it is considered a great honour to be so selected for this function (Goldstein, 1999). A *supra* goes on for hours and the Tamada gives the toasts in a special order. The first toast is for the host and his family; thereafter follows a toast for the mother country of Georgia, then toast to the memory of the deceased heroes of the country and families of Georgia, followed by a toast to parents (especially mothers), friends, relatives, and the future of Georgia, to name a few of the toasts performed at a *supra*. Usually The guests empty their wine glasses on each toast and the glasses are filled again for the following toasts. No wine is drunk between the toasts. When the Tamada has given the last toast and rises up from the table the banquet or dinner, this is a signal that the event is over.

A special kind of artifact known as a '*kvevris*' has been found in the course of many excavations. A *kvevri* is a wine vessel which became known as an amphora during Antiquity in Greece and the Roman Empire; In Georgia, however, this kind of vessels has always been termed '*kvevris*' and still is. It is known from sites that can be dated as far back as Antiquity, that the *kvevris* was placed up to its neck in the ground and then filled with grape juice. The *kvevris* was sealed with a lid and the juice was left to ferment. The wine-farmer looked after the fermentation process until the wine was ready. The wine was then transferred to bags made of animal skins. In Georgia, there is no tradition of carrying wine in *kvevris*; skin bags have been used for this purpose since antiquity – perhaps even at an earlier period also. There are many reasons for this, including the fact that it was easier to carry a skin bag full of wine on one's back than to transport a hard *kvevris*. Furthermore, the skin bags did not break as easily as the *kvevri* did during transportation on ships or in chariots. The *kvevris* was mainly used for during the fermentation process of the wine. However, it is evident from several archaeological sites that, during Antiquity the *kvevris* were also used for non-cremation burials (Chilashvili, 2004:91-105).

Georgia was one of the world's first Christian countries, and dates such as 337 A.D. and 319 A.D. have been put forward for the country's adoption of Christianity (Tarchnisvili, 1953:572). Georgia's conversion to Christianity is closely linked to St. Nino. According to one tradition, St. Nino was from Kolastra, Cappadocia (in today's Turkey) and she was a relative of St. George (the patron saint of Georgia). She was said to have come to Georgia from Constantinople. Other sources claim that she came from Rome, Jerusalem or Gaul. According to legend, St. Nino saw the Virgin Mary in a dream and she told Nino that she should enter Georgia with a cross made of the wood of vine stocks. When Nino woke up from her dream she found herself holding two pieces of wood from vine stocks and she tied them together with her own hair. With this cross made of wine she fled Roman persecution in Cappadocia and made her way into Georgia and started to teach Christianity. The legend also tells that she performed miraculous healing and converted the Georgian queen, Nana, and eventually the pagan king, Mirian III, of Iberia. Mirian III declared Christianity an official religion in c. 327 A.D. and Nino continued her missionary activities among Georgians until her death in 338 or 340 A.D (Machitadze, 2006:48-52, Wardop, 2006:12, Tarchnisvili 1953:572; Lang, 1956:13-39).

St. Nino's tomb is still shown at the Bodbe Monastery in Kakheti – which is also the main wine region– in eastern Georgia. She has become one of the most venerated saints of the Georgian Orthodox Church and her attribute, a Grapevine cross, is a unique cross in the Christian world. Since, according to the legend, it was the Virgin Mary, who told St. Nino to go to Georgia and teach Christianity, the Grapevine cross became a symbol for and of Georgian Christianity.



*Fig 1. Grapes waiting to be harvest.©Ulrica Söderlind*

Humans cannot live on wine alone and, as in the case of wine-culture, evidence for bread consumption in Georgia also goes back to the pre-historic times. Four endemic cultures of wheat were also found in the Shulaveris Gora site representative of the Shulaveri-Shomu Tepe chalcolithic culture – where the first evidence of cultivated vine was also found (Kkushnareva & Chubinishvili 1970: 170).

### **Bread**

As indicated above, bread has a long tradition in Georgia, dating back to the chalcolithic period. The crop that is mainly used for bread-making in Georgia today is wheat. The Georgian word for wheat flour actually translates into English as “bread flour”.

A special oven called ‘*tone*’ exists in Georgia for baking bread. This kind of oven is designed to provide very high, dry heat. Fuel for the fire is provided by charcoal which lines the bottom of the structure. In order to produce temperatures approaching 900 degrees Fahrenheit (480 degrees Celsius), bakers maintain a long vigil to keep the oven's coals continually burning. At such high temperatures, the bread made in a Tone oven develops a very crisp outer layer without sacrificing moistness on the inside (Todua, 1979:692).

One can find analogies between the ‘*tone*’ oven and the ‘*tandoor*’ oven in Pakistan, India, Afghanistan, the Transcaucasus region, the Balkans, the Middle East, Central Asia and Bangladesh. The earliest example of a tandoor oven has been found at the Harappa and Mohenjo Daro settlements of the ancient Indus Valley Civilization (2600-1500 B.C). Even so, ovens of the *tandoor* -type have been found in early-Harappan contexts (The Early Harappan Ravi Phase is named after the nearby Ravi River, lasted from ca 3300- 2800 BC). The

mature phase of earlier village cultures is represented by Rehman Dheri and Amri in Pakistan. Trade networks linked this culture with related regional cultures and distant sources of raw materials, including lapis lazuli and other materials for bead-making. Villagers had, by this time, domesticated numerous crops, including peas, sesame seeds, dates and cotton, as well as various animals, including the water buffalo on the Makran coast, including at the mound site of Balakut that pre-dates the findings from the Mohenjo Daro settlements (Mohenjo-daro (Mound of the Dead) was one of the largest city-settlements of the Indus Valley Civilization of south Asia situated in the province of Sind, Pakistan. Built around 2600 BC, the city was one of the early urban settlements in the world, existing at the same time as the civilizations of ancient Egypt, Mesopotamia, and Crete). Description of ovens of this kind are also found in texts and accounts from Mesopotamia (Bottéro 2004: 47).

The word *tandoor* comes from the Dari words *tandūr* and *tannūr*; these are derived from very similar terms, Persian *tanūr* (تنور), Arabic *tandūr*, Turkish *Tandır* and Azeri word *tandır*. However, according to Dehkhoda Persian Dictionary the word originates from Akkadian *tinūru*, and is mentioned as early as in the Accadian Epic of Gilgames (reflexes of which are Avestan *tanūra* and Pahlavi *tanūr*). As such, the term may not be of Semitic or Iranian origin at all, dating back as it does to periods before the migration of Aryan and Semitic people to the Iranian plateau and Mesopotamia (Bottéro 2004:47).

The fact that the main crop grown for use in bread baking in Georgia was wheat does not mean that no other crops were not also in evidence. In the western part of the country a crop called "ღომი" [Romi] [ghomi], belonging to the Monocotyledons culture, was used. The crop (that was similar to millet) was boiled and eaten instead of bread. When sweet corn came into use in the western part of the country it was used instead of Ghomi and the crop is now extinct. Nevertheless, this kind of bread is still named Ghomi in western Georgia, even if it is baked using fine grained cornflour and such bread is often called cornbread when described to visitors. Ghomi was also found in the Monocotyledons cultural period and remained in use until the beginning of twentieth century (personal communication Tskvitinidze, Tamar). Bread (პური) is a very important element of diet for Georgians; and, with just two exceptions, *Khachapuri* and *Khinkali*, it is eaten at every meal. It does not matter how many dishes there is on the table, if bread is missing, the meal is not considered to be complete.



Fig2. Tane bread in the making. © Ulrica Söderlind

### ***Khachapuri and Khinkali***

*Khachapuri* (ხაჭაპური) is a specialty of Georgian cuisine. There are different regional varieties, such as, *adjarian khachapuri*, *imeritian khachapuri*, *ossetian khachapuri* and *Megrelian Khachapuri*. The name is very often translated into English as cheese bread, but it is not bread at all. The dish consists of a mixture of dough made from a mixture of youghurt, wheatflour, baking soda, sugar, egg yolk and salt. The dough is prepared approximately three hours before using. The different varieties of the dish arise from the seasoning used – such as sour cream, garlic, and so on – and this is also regional specific. Even if the different varieties of khacapuri do not look alike, they are all made using this dough and are filled with cheese before they are baked in a pan on the stove or in the oven, and then coated with butter before being served (Georgian dishes, s.l, s.d:16-18,20,26). *Khacapuri* is a very popular dish and is often eaten as a snack between meals or as fast food, even though the dish is very filling.



Fig 3. Homemade Khachapuri in Zestaphonia.©Ulrica Söderlind

*Khinkali* (ხინკალი [xinkali]) are also a typical Georgian specialty and, along with *Khachapuri*, are considered as a national dish. *Khinkali* are a kind of filled dumpling. Grey flour (such as rye flour), rather than white wheaten flour is used to make the dough, which consists of flour, salt and water. The dough is rolled out, round pieces are cut out and minced ham and pork are placed on top of them. The minced meat is flavoured with chopped unions, (in some cases also garlic) egg, pepper, and green herbs (such as parsley, coriander, cumin etc). The *Khinkali* with meat filling is the most common variety, although cheese, potato and mushrooms are also used for this purpose. The dough is wrapped around the filling and the dumpling is twisted around several times, the best made one is twisted around twelve times. The dumplings are put into boiling water and are served with butter and black pepper (Georgian dishes, s.l, s.d:30).

The dumplings are eaten by hand without the use of any cutlery. The dumpling is picked up by hand where the dough been twisted round. That part is harder then the rest and not as hot either as the remainder of the dumpling. The eating of khinkali is an art form since all of the meat juice stays inside the dumpling. It is not



easy for a foreigner to eat Khinkali while maintaining good table manner. As khinkali is a filling dish, it is very common to leave the part of the dumpling uneaten. Thus when a meal is finished it is possible to count how many *khinkali* each person had eaten. Wine is not a good choice to drink to *khinkali*, one of the few Georgian dishes where wine is not recommended.

It is presumed that *Khinkali* originated in China, where they were originally named '*Jiao Tzu*'. From there they spread to Russia (Pelmeni) and Central Asia (chuchvara). It is possible that the spread of the dish from China to Georgia started with the Mongol invasion in the thirteenth century.



Fig 4. *Khinkali* cooks are usually women and the *Khinkali* at the restaurants are made *à la minute*.

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### Supra and Tamada

It is not possible to talk about Georgias foodculture without mentioning the Supra and Tamada (they have shortly been presented earlier in the text). A *supra* is a traditional Georgian meal, often served in the evening and the word "*supra*" means tablecloth (Enwall & Söderlind 2009: 109), the term *supra* derives from the Arabic *sufuratun* that means the cloth spread out on the floor for eating (Chatwin 2002: 181). At least 10 dishes are included in a *supra* and all the dishes are placed on the table all at once. Usually one finds the following dishes on a *supra* table; *ajapsandali* (fried eggplant with tomato and paprika), *bazje* (walnutsauce), *chartjo* (meatsoup), *Khachapuri* (see above), *dzjondzjoli* (pickled Caucasian nut, *staphylea colchica*), *elardzji* (porridge made of cornflour and *sulgunichee*), *ghomi* (cornbread), *gotji* (whole roasted sucking-pig), *lobio* (brown beans in garlic sauce), *mchaki/pchali* (mixture of shopped spinach, leaves of beetroot or similar), *mtsvadi* (barbeque), *mtsvanili* (whole hers such as estragon, coriander, mint, dill, parsley dipped in salt), *nigvziani* (eggplant with walnuts), *puri* (bread), *satsivi* (turkey or chicken in walnut sauce), *soko* (marinated mushrooms), *sulguni/suluguni* (relatively salt cheese that can also be served fried), *tjachochbili* (chicken in tomato and onion sauce with herbs and *tqemali* (sauce made from *prunus divaricata*). At the end of the *supra* Turkish coffee or tea is served along with fruits such as figs, quince in syrup (Enwall & Söderlind 2009: 109-

110). These dishes should be seen as the minimum of dishes at a supra, on many occasions the dishes are larger in numbers and a supra goes on for several hours.

In the beginning of the meal a tamada is elected, the toastmaster. In the Georgian context however tamada has a deeper meaning than toastmaster. Normally one of the oldest men among the guest around the table is chosen as the tamada, it is not uncommon that the host of the supra is elected. To be elected as tamada is a great honour, especially on large supras (Enwall & Söderlind 2009: 110, Chatwin 2002: 181). It takes years of training from childhood for a boy to be a good tamada as an adult man, in general men are chosen as tamada and that falls back to the tradition that earlier only men were presented at a supra. The years of training creates a tamada that is effective that can create innovations at each supra upon a background of a deeper theme, which all the guests have already heard many, many times, at many other occasions and spoken by other tamadas (Chatwin 2002:184).

The tamada starts or opens the supra with the first glass raised, joined by all the other guests at the tale and continues this process with successive statements at frequent intervals during the whole meal. The wine consumption varies between 2-6 liters of wine per person during the supra. At a supra there is no wine drinking taken place unless the tamada calls for a *sadhregrdzelo*, the word means "for a long life". Non-alcoholic beverages are served throughout the whole supra that can be drunk anytime (Chatwin 2002:184, Enwall & Söderlind 2009:110). It is worth noting here that the words *tamada* and *sadhregrdzelo* can not be found in the dictionaries from the 17<sup>th</sup> or 18<sup>th</sup> centuries. In the beginning of the 19<sup>th</sup> century the two terms/words start to appear in the Georgian literature and in the end of the century it seems like that the supra culture is incorporated everywhere in the Georgian social life (Enwall & Söderlind 2009:112).

A Georgian toast is more like a blessing (*dalotsva*) than anything else and differs in that way from the toasting that takes place around a European feast table. There is a sacredness around the table, specially at a supra and wine is considered to be sacred (Chatwin 2002:184) and is seen as a heavenly beverage (personal communication, Donadze, Paata, Tbilisi, Georgia). The Georgian system of toasting is a ritual process, very familiar to all the guests and one which will not deviate according to personal whim. Even if there might be individual variations in the recognition of the context and guests, there can not be any changing in the process, it is impossible. One does not propose a toast if one is not tamada except under certain conditions and with permission of the tamada, one does not change the theme of the proposed toast (Chatwin 2002:185). Sometimes at large or grand supras the tamada has a helper, a so called *merikipe*. The merikipe serves the wine (personal communication, Donadze, Paata, Tbilisi, Georgia). The word *keipe* derives from an ancient Persian word for joy. In the toast the tamada makes the word *Gaumardjos* is always present and it means "victory" (Chatwin 2002:185-186).

Depending on the size of the supra the numbers of toast divers in a range from five to twenty toasts or more (Chatwin 2002:185). The following toasts are usually celebrated at a supra; to acquaintances and friendship, to the guests, to relatives and friends health and well-being, to the guest families, to parents and the older generation, to the dead and the saints and a separate toast for the ones that have passed away before their time, to newborns and the ones waiting to be born, to the women around the table (here the women are addressed as the veiled ones), to love, to the mothers of the guests, to world peace, to the hostess and to tamada (Enwall & Söderlind 2009:111). The toast for the loved ones that have passed on is a very special toast and it is not uncommon that wine is poured into a piece of bread or bread is dipped in the wine during this toast. According to the personal habit, the bread can be eaten or not eaten. Opinions differ among the

Georgians as to where this behavior comes from and what it means, some say it is the symbol of the blood and body of Christ while others say it comes from the mountain areas where wine is poured into the ground during this toast. In the cities the ground itself has been substituted by a piece of bread. It is not uncommon that the guests feel that they are directly sharing wine with the deceased person and the bread is the material form of him or her. Often this toast is celebrated with the men standing and the women seated (Chatwin 2002:187).

### **Closing discussion**

This paper has dealt with two things: first with the factors that I think are very important for the choices for food and beverage that humans do in their daily lives and on feast days and second the basic of Georgian food culture.

The choice of food and beverage (gastronomy) is founded very early in the history of a nation (society) and its inhabitants. In short factors such as need, edibility, availability, human senses, philosophical thoughts, geographical and mental borders, economy, inheritance from childhood, ideology, social structures, social class, gender, utensils, experiences and sensations play a vital part in humans choices of food and beverage in the daily life and on feast days. A nation's gastronomy consists also of phenomena such as diet, provisions, culinary art, fare, nourishment. The choices are therefore very complex and never static. It gets even more complicated due to the fact that the factors mentioned above not necessary have the same meaning for all inhabitants within the same geographical borders. However I think that all this factors combined constitute "the gastronomic man".

Georgia has thanks to its geographical location always been a crossroad between the east and the west and has also therefore been object to many invasions by, for example, the Greeks, Persians, Mongols and the Ottomans, to name but a few. The invasions have left their footprints in among other things, the food and drinking culture in Georgia. One can find several cuisines in Georgia apart from the one the Georgians themselves consider to be their own. In the above text I have presented the staple foods of Georgians such as wine, bread, *khachapuri*, *khinkali* and the social event *supra* with its so important tamada. In the following I will discuss the factors that constitute "the gastronomic man" on the staples in Georgia's food and drinking culture.

There is no doubt that the physiological need for food and nourishment is one of the driving forces for humans to see to it that there will be food and beverage for oneself and one's family or group. Even so, in order to provide that basic need humans do not eat or drink just anything that is at hand. Here come factors such as edibility and availability in. Just recently archaeologists proclaimed that the first clear evidence of organized feasting among early humans has been found. The findings come from a burial site in Israel and dates back approximately 12 thousand years (<http://www.physorg.com/news202382957.html>). Even if there is not a bounden of archaeological evidence for organized feasting the findings in Israel indicate that humans have done it for a long time. Considering Georgia's long history it would not be at all surprising if similar findings will come to light at sites such as Dmanisi for example. This leads me to the early findings of cultivated wine pips in Georgia, found in the Shulaveri-Shomu Tepe culture and the pips dates to approximately 6625 B.C. These pips are not the oldest grape pips found, older ones have been found in modern Turkey, but they are pips from wild grapes and not cultivated grapes. There lays a very important difference. If one has cultivated grapes one can count on a more regular and steady harvest then if the grapes are wild. However to start to cultivate grapes and turn grapes into a crop among others in the



agriculture was a risky business. It took several years before the first harvest came if one started out with young stocks. In Georgia it seems like the reason for cultivating the grape was to make one and not to eat them. Table grapes appeared during the Bronze Age.

It is known from sources written in Antiquity that Greece took a great interest in the Kingdom of Colchis – the territory of modern western Georgia. As a result Greece colonized the coast of Colchis and established trading posts in Phasis (modern Poti), Gyunos, and Dioskuria (modern Sokhumi). Phasis and Dioskuria became splendid Greek cities dominated by mercantile oligarchies. These cities became very important trading centers along the Black Sea coast. Wine amphoras have been discovered near Poti (Gamkrelidze, 1992:108) which show that there was a developed export and import wine trade. This shows that wine was an important and established product in the society's economy during the Greek era; however it does indicate when wine became an important economic factor in society. However, just because earlier societies, such as the chalcolithic one, have not left any written records does not mean that wine was not an economic factor. So far, there have been just a few maritime excavations in Georgia along the Black Sea shore line, and if further excavations are allowed with a focus on locating ships and boats from earlier periods, then it might be possible to indicate when wine became an important economic factor in Georgia. I strongly believe that wine was an important economic factor long before antiquity and since Georgia most likely has been visited by people traveling along the waterways since the Stone Age, discoveries from that period and the Bronze Age would help to shed light on this matter.

In Georgia today there are around six hundred species of grapes (Chilashvili, 2004:198-123). The wine louse (*Phylloxera vastatrix*) that was so devastating for the wine yards in Europe in the late nineteenth century did not affect Georgia to the same extent. This means that even if Georgia has lost some of its species some ancient ones still exist. Smaller wine farmers still use the ancient techniques for the fermentation process of the grape juice. In the floors of the wine cellars the kvevris are placed into the floor up to its necks and the grape juice is poured into them and left to ferment under careful supervision from the wine farmer. The larger wine companies are using modern techniques that include metal tanks. In the production of wine making factors such as tradition and technical development go hand in hand.

One very interesting question which arises studying the wine cup in silver from Trialeti (Bronze Age) is whether it really is hops that are surrounding the God Mithra, and whether the God is drinking *haoma*. If this proves to be the case, it will indeed change what is known to date about the *haoma* cult – that is that the cult was closely connected to Mithra in the Persian Empire before the God was transformed into Mithras during antiquity. Many researchers have devoted much effort in trying to find out what was the main intoxicating ingredient of the *haoma* beverage. Some say that mushrooms (*Amanita Muscaria*) were used, while others are of the opinion that the original plant would have been a small bush that secreted a strong smell and had bitter leaves. The *haoma* beverage was a very intoxicating one and was also hallucinogenic. The plant that is in use today among the worshippers and followers of Zoroaster is a different plant – one which belongs to the Efediner (*Peganum Harmala*) family. The intoxicating and hallucinogenic effects of this plant are not as strong as its forerunner. If, indeed, the main ingredient in *haoma* was hops, there must have been some other ingredient in the beverage that gave the consumer the strong hallucinations. What that ingredient was remains to be seen.

Since Georgia is one of the earliest Christian countries in the world and due to the mission of Saint Nino and her dream where the Holy Virgin Mary told Nino to go back to Georgia and carry out her mission with a cross

made of wine stocks wine is closely connected to this to women and the Georgian Church symbol is the cross made out of wine stock, the so called Saint Nino's cross. Tradition and theology as an ideology are very important factors for the wines role in the Georgian Christian way of life.

In Georgia bread seems to be as old as wine and wine drinking, findings of bread can be dated back to the chalcolitic era and in today's Georgia the main crop for bread making is wheat. The Georgian word for wheat flour translated into English means in fact "bread flour". A special bread, the "tone bread" has caught my interest since the oven differs from other ovens. This kind of ovens can also be found in modern Iran and Turkey and I have been able to trace this technique of bread making back to the Mesopotamians through the works of Bottéro, this kind of ovens are also found in Egyptian tombs from the time period of Ramses II. It is too early for me in my research to say where the origin of this kind of bread baking comes from but to me it seems unlikely that this special kind of oven would appear in different part of a relatively close geographical area without any contact between people and travelers, specially considering Georgia's geographical crossroad location. How old this oven is in Georgia is not yet clear but it would not be a surprise if findings will come to light during archaeological excavations from early time periods in the country that will shed light on this matter. I do believe that the type of oven have been in use for a very long time in the country since it is a highly effective oven and I do believe that the oven type has been spread via travelers even if it is too early to say from where to where yet, that still remains to be dealt with.

*Khachapuri* is very interesting to study since it comes in different forms and shapes depending on where in Georgia it is served. The ingredients for the different kind of *khachapuri* are the same even if the outcome is different. As for now I can not answer the question of the *khahcapuris* origin and why they have different appearances, the Georgians consider it to be one of their national dishes even if it comes in different shapes and forms. It is going to be interesting to see how far back in time the dish can be traced.

It is interesting that the Georgian's consider *khinkali* as one of their national dishes since indicators exist that the origin of the dish comes from China. If one follows today's diffusion of the dish and at the same time one studies maps of the movements of the Mongol war lord's one can see that the dish under different names can be found on the same path as the Mongol war lord's movements. In Georgia, one cannot find *Khinkali* in the western part. I believe that the dish never reached that region of the country due to the fact that the Mongolians never entered the forest which covers its surface. They did not know how to fight a battle in the forest region as they were unfamiliar with forest in their own homeland. There is a written source from the year 1658 that states the *Khinkali* was made of dry ham of animals, it does not say anything about salting or any other preparation of the meat besides drying (Sulxan-saba, 1993:423). It raises the question as to how, why and when the dried meat was transformed into the dish we know today as *Khinkali*. It seems logic for horsemen to have dried meat and bread with them in their saddle bags, easy to carry and easy to eat. What is considered to be the best *khinkali* today in Georgia can be found in mountain areas in eastern Georgia, and in past times that region was famous for it horsemen. This shall be seen as a working theory for now and further research is necessary before any firm conclusions in this regard can be reached. Regardless one can see once more that meetings between different kinds of people seem to be the key to the spread of the dish. Later on technology played an important part for the dish to transform from dried meat into the boiled meat dumplings we know to day as *khinkali*.

Even if the words *sadhregrdzelo* and *tamada* do not appear in Georgian dictionaries and literature until the 19<sup>th</sup> century it does not mean that occasions like supras have been given earlier then that even if it was called something else. The finding of the bronze figurine dated to the first millennium B.C tells us otherwise.

It does not seem logic to create such a figurine if it did not have a great meaning to people in society. It indicates that the use of tamada goes way back in today's Georgia history and that it is filled with a great deal of traditions when a supra takes place. The boys are in a way undergoing education from an early age in becoming a good tamada and that is something that is passed on from father to son over the generations. No wine drinking is taking place at a supra between the toasts made by the tamada. Since wine is considered to be a heavenly beverage the greatest respect is paid to the wine during a supra.

At a supra several dishes are served and many of them are already at the table before the guests are seated, nevertheless hot dishes are served during the supra and a supra table is carefully planned and laid out by the hostess. For each guest there are several cutleries, glasses, plates and napkins. There is always one larger plate and on top of that a smaller plate. When the hostess thinks that the smaller plate is becoming too dirty from the food eaten she replaces it with a new one, the plate will also be changed if the hostess thinks that different kinds of flavors from different dishes should not be mixed together. During a supra this small plate is changed a lot of times. Utensils at a supra is a very important factor for the guests' comfort. At a supra one can feel and see the heart and soul of the Georgian people and it combines different kinds of ideologies where one can find elements from different regions of Georgia, first and foremost one finds the love the Georgian's have for each other and their country.

Even if it seems like the origin of the word "wine" can be traced to the Georgian language and it is safe to say that the cradle of wine is in today's Georgia it seems like other Georgian words derives from Persian and Arabic and that indicates that different kind of groups have come in contact with each other and most likely shared a meal together or at least broken bread with each other and then parted and the group belonging to the Georgian area took with them something from the other group that they liked and found pleasant. Of course it can also indicate that it comes from the invasion from Persia and Arabia and somehow have been forced upon the Georgians. I found that explanation a bit far fetched since something that has to do with food and beverage and has been forced upon someone else do not survive long after the invaders have left the territory, either way it indicates contacts between different kind of people.

By choosing the staple foods of Georgia such as wine, bread, *khachapuri*, *khinkali* and the social event supra with its tamada I hope I have been able to point out how complex "the gastronomic man" in reality is, specially in a country like Georgia where people have met between the east and west most likely since time immemorial. Apart from the physiological need for nourishment factors such as availability, edibility, different kind of ideology, social structures, technology, economy, utensils, inheritance from childhood, geographical borders, human senses, experiences, sensations and traditions all are closely combined in a net that we all live in. Even if people find themselves in the same geographical area and belong to the same "group" of people it does not mean that this complex net is the same for each individual in the group. In my opinion it is this net that "the gastronomic man" constitutes of that makes it so interesting to study societies from a gastronomical point of view, especially complex countries such as Georgia.



*Georgias main staple foods. ©Donadze, Paata*

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## Marketing Decision Support Systems and the New Economic Challenges

Rocsana Bucea-Manea-Țoniș<sup>1</sup>, Radu Bucea-Manea-Țoniș<sup>2</sup>

<sup>1+2</sup> “Spiru Haret University”

### Abstract

*Even marketing is told to sell dreams to customers, it must take into account the real power of potential markets consumption that relies on the economic state-of-affairs. If the economic draw-back must change the methods used by marketing strategists or how the crises that lead to under-consumption even for the most common goods affect the publicity budget, it is a fair study to be made. We can only imagine how a commercial for a tiny electric car will appeal the inflated ego of a man from the post-petro/dollar new economic era...But, even the "times are changin'", a merchandiser will always claim his merchandise, so the commercial message, even more blunt, sincere and compelling, must reach the client. Still, nowadays the commercial message is not enough to bring clients and grow the business. The marketer has to become specialist in using the IT facilities, such as marketing decision support systems (MDSS), in the process of taking important decisions: launching a new product, spreading on a new market, changing the supplier, changing the commercial message. etc. The article shows how useful is MDSS in the process of taking decisions*

**Keywords:** MDSS, decision models, economic challenges

**JEL Codes:** M31

### 1. Introduction

The introduction of industrial machines on a large-scale led to masses of skilled workers revolt (e.g. the introduction of cranes to Braila harbour led porters to revolt). Luckily the economic boom resulting from the industrial revolution has generated enough jobs to cover the excess of labour supply.

The strong overproduction crisis of 1929 was due largely to new production methods, as were applied in Chicago slaughterhouses or the assembly line at Ford's, leading to reduce consumption due to widespread unemployment. World War II had mobilized labour force for the war (e.g. soldiers in the army and defence industry workers).

General economic progress since World War II resulted from the application of scientific discoveries arising from research to equip the army (atomic energy, semiconductor technology, etc).

The ecologic and economic crisis from the '70s slowed down the economic development and favoured the emergence of chronic unemployment, even in developed countries.

The popularity of modern computing systems and computer networks triggered a new generation of employees in IT&C and diverse classical methods of production (tele-working, electronic commerce, industrial robots, etc.).

The computer and hard/soft development supported the economies of the developed countries as long as the business processes had benefited from the automation of the economic activities in terms of ROI.

The stop of the electronic business development (years 2000) was the signal that the IT sector alone cannot support economic growth anymore. From now on constructions and capital flows generated by construction sector stands for the vector of economic development. Shortly after the last economic boom, economies that had relied extensively on this sector have been overheating. Also, the use of financial instruments based on mortgages to cover banking risk has favoured the appearance of financial "bubbles".

Financial crisis was felt acutely only when the national social protection system behaved like a true pyramidal strategy. Factors such as population aging coupled with stopping the economic growth led to their collapse.

Thus, the marketing specialist task becomes very difficult, having to find new ways:

- to meet customer requirements with limited resources;
- to determine the actual opening of international markets, not just in theory;
- to have a strengthened online presence using Webmarketing techniques;
- to promote in particular those products which require more limited resources, and in accordance with restrictions imposed by the ecological environment (products that are built using wave power, wind power, green buildings, etc.);
- to have a long term vision.

Although the computer cannot solve alone difficult issues, it can be considered an asset. We refer both to the expansion of the internet facilities that can be enhanced by Webmarketing techniques and the use of computing power and the latest tools such as Marketing Decision Support Systems (MDSS). We analyze in the next section the MDSS.

## 2. Marketing Decision Support Systems nowadays

### 2.1. Models and tools for a wide range of marketing analysis

Given the scarcity of resources, of information (information is available on the Internet, but it is not organized and the reliable sources are not known) and time (decisions should be taken "in no time" for a competitive advantage) MDSS future must be accessible or free (open source licenses) for every business to consider their use and be reusable (has to be developed in modules, easily integrated, independent of platform and web dedicated so that the same software to be adapted for different types of business by choosing only the modules that the business needs).

Marketing Decision Support Systems (MDSS) is a coordinated collection of data, of systems, of tools and techniques with software and hardware support for an organization to gather and to interpret relevant information from the business environment and to turn it into a marketing database. Storage and retrieval system capacity enables the collection and use of a wide range of data across the enterprise. Senior management can access the database and continuously monitor sales, markets, sales staff performance, etc. [1]

Modern MDSS should include prediction models. Businesses should be able to examine what happens when exploring a new market or expanding a market. [2]

MDSS should include models and tools for a wide range of marketing analysis, such as sensitivity analysis, what-if analysis, goal setting, exception reporting, Pareto analysis, forecasting models, simulation models, scorecards and dashboards. [3]

1. *Sensitivity analysis*. This analysis allows decision makers to juggle a strategic variable, such as quality and follows the impact on consumer behaviour.

2. *What-if analysis*. With this type of analysis can check for example how is going to change the costs for organizing a course in conditions that the number of students enrolling in that course varies.

3. *Setting goals*. After applying the SWOT analysis it may be seen which the available resources are. Then the achievable goals can be formulated and the resources for each objective can be allocated.

4. *Exception reporting (gap analysis)*. Sometimes income for a particular activity does not fall within the original forecasts. Highlighting exceeding segments these forecasts can analyze the causes of disparities and especially if they are structural or conjunctural. Major strategic decision may be influenced by these causes.



5. *Pareto analysis*. We know that many companies have some loyal customers who may support even 80% of the business. To these clients the business has to devote their resources, however without neglecting the other customers. The loss of such a client can seriously affect business activity. To detect these clients, their activities, products, services that generate disproportionate results Pareto analysis is very useful.

6. *Forecasting models*. Generally companies have data characterizing the activity of previous years. These data can be transformed into knowledge when considering their trend and make predictions. They are captured by econometric models, sometimes with seasonal component, or determined by the events organized, by the promotional period, by natural, economic phenomena etc.

7. *Simulation models*. Simulations involve the analysis of the influence of one or more independent variables on other dependent variables. The simulations are done as pore Scenarios included with Excel or using Monte Carlo for taking marketing decisions under uncertainty conditions. For example to launch a new product on the market can only guess the possible market share that will be disputed by the product. Although, previously taking the decision to create a new product, it can be done market inquiries and other various analyses such as niches, competition, market saturation level yet so cannot be known the consumer reaction to new product until after launching the product. If a negative result in the simulation company must change their values or variables to achieve a reasonable result.

8. *Scorecards and dashboards*. They appear as very friendly interface that can aggregate and display the results of others types of analysis, to provide an overview, but at the same time a depth view on the effectiveness of the activities, on markets, on customers and competitors..

## 2.2. Types of issues addressed by MDSS analysis

The following list shows some of the most common types of issues addressed by analysis MDSS. [3]

1. Analysis of market segments. It can be achieved through cluster analysis or other modelling techniques. Along with the market segments can analyze economic trends, demographic and behaviour for each segment.

2. Market share analysis. Market share in its static analysis can be dynamic. Static evaluation involves determining the factors that influence a particular time and context can influence overall non-quantifiable. Take into account the dynamic time series prediction and analyze results.

3. Competition analysis. Competition can be viewed from several perspectives such as market share, brand perception among consumers over on quality and price of products and services, resources (financial, informational, human, technical, etc.), innovative and strategic potential etc.

4. Price analysis. Internal and external economic factors influence the price elasticity and how they are set. But costs and demand are the most important factors to be considered in pricing

5. Cost analysis. Studies on the structure of a firm's total costs and its impact on product cost. The analysis combines the analysis of marginal cost pricing analysis. Variance analysis seeks explanations for the excess costs admissible and inadmissible.

6. Sales analysis. Factors such as pricing, degree of popularity, accessibility, culture, advertising and exposure type, product type etc. can influence a firm sales distribution.

7. Sales force productivity. Make a quantitative and qualitative analysis of sales force and factors that contribute to their efficiency and effectiveness, and theirs degree of financial or professional reasons. Comparisons consider each person in a team and the entire team.

8. Advertising analysis. It relies more on new webmarketing techniques. Analyze the effectiveness of advertising, media choice and brand. It analyzes the attributes covered ("free attributes") - opportunities to improve brand image

and generating ideas for new products. It examines how brands are perceived, category of products / services and attributes that are most likely to enhance the brand image?

10. Distribution analysis. Analyze factors that influence the distribution channel choice decision.

11. Simulation Different scenarios are created takes into account dependent and independent variables in conditions of certainty or confidence, such as Monte Carlo method.

12. Customer satisfaction. Analyze the attributes with the greatest impact on consumer satisfaction, customer expectations and product performance.

An example of MDSS models for marketing problems is shown in Figure 1.

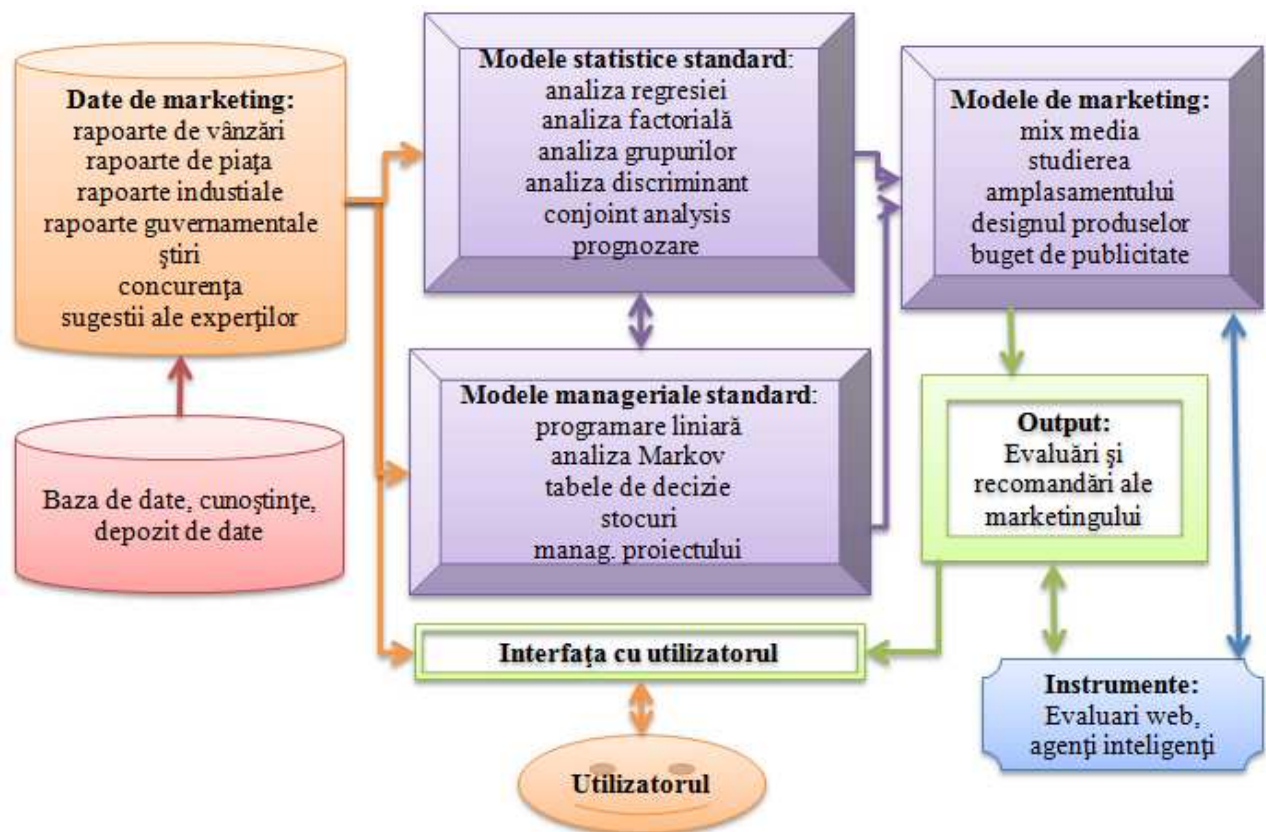


Fig. 1: MDSS models for marketing problems (source: Hartulari, 2009).

To the above described MDSS some models often used in marketing can be added. The MDSS has to be able to do:

- quantitative analysis (simple statistics frequencies, amounts, minimum, maximum values, measures of central tendency, measures of dispersion, covariance)

- qualitative analysis (tests of difference between average and percent, analysis of variance (ANOVA), correlation analysis, correlation analysis, factor analysis, cluster analysis, discriminant analysis, regression models, Conjoint analysis, Kano model, Brand Attraction Maps (BAM), Brand Usage Profile Analysis (BUPA), Brand Image Profile Analysis (BIPAI), Quadrant Analysis, Brand Belief, BCG matrix, GE matrix, Space Model, etc. ).

- prediction (dynamic series analysis, regression, probability transition matrix Markov method). Forecasting models facilitates a vision of the future based on data obtained in the past. Thus the company can establish management and marketing strategies on medium and long term.

### 2.3. Case study

A dashboard example that is part of a MDSS is presented in the following case study. In this case the dashboard allows the observation of the relationship between economic profitability, commercial profitability, financial profitability and net profits of several companies. If we take into account the interest rate we will know which of the firm can obtain a bank loan, we know which of these companies fail to use resources in terms of efficiency. It is preferable to choose a business partner engaged in a profitable activity for the establishment of trade relations for a long time, one that can provide high quality products and services, latest technology, discounts, promotional offers, etc. Panel allows comparisons between these values depending on the time dimension: year, quarter, month, week, day. Panel display allows total assets (TA), turnover (CA), equity (KP), the number of employees (NrSal) and operating income (RezExpl).

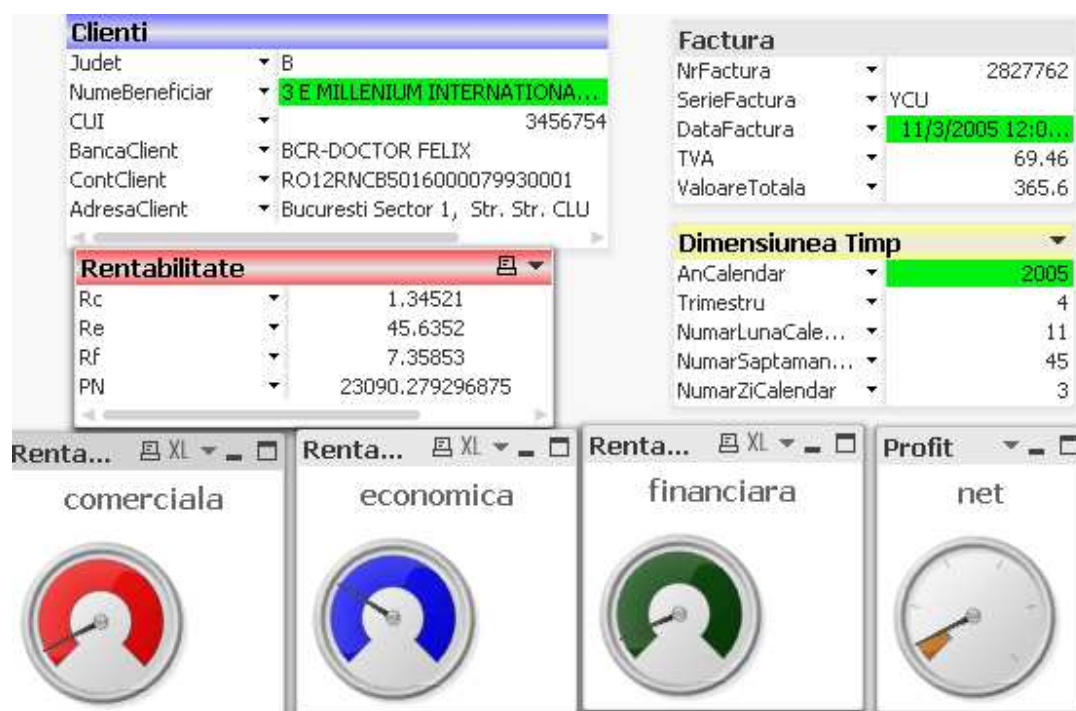


Fig. 2: Dashboard as a component of a MDSS

You can add graphic objects representing the trend of sales, margins sales and relative sales on week or day. Once done such a dashboard user can show the analysis and synthesis skills and make decisions based, because a simple click on any of the elements of a list is running a SQL query and automatically changes the contents of all other objects in the dashboard. The interface allows a user who does not have time or computer knowledge necessary for the query to analyze all aspects of business features. It can "freeze" a particular criterion above and add additional criteria. The operation is reversible. Thus the user has access in real-time to dynamic analysis visually, explicit, in a simple click. He can see which are best and worst selling

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products that are today the most profitable, if there is some cyclicity in the consumption of certain types of products, how much they sold, etc.

### 3. Conclusions

Possible solutions for escaping the spiral of sovereign debts are:

- eco-friendly extensive agriculture/industrial methods, with increased human capital in order to stimulate consumption;
- using equivalent fuel prices/ hourly labour costs in the formulation of economic strategies, since the trend associated to the natural resources price is rising;
- structural problems of China's economy can be a good opportunity to expand over new foreign markets on medium term, though the economic region of South-East Asia has formidable resources.
- cheap labour from the emerging and developing countries will continue to reduce the wage index and hence the consumption to a level not very comfortable for the citizens of developed countries;
- a MDSS should be employed in the economic activity unless the associated ROI is negative; MDSS should be accessible or free of charge and independent of platform

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