

Environmental Audit within Romanian Small and Medium Sized Enterprises

Alin Emanuel ARTENE¹, Vasile DURAN²

Abstract – In Europe, the growing concern for environmental protection, along with expanding environmental legislation led to taking into account environmental audit in small and medium size enterprises (SME). This awareness coincides with that of various bodies involved in the production process, so that it became necessary to introduce environmental issues related to daily decision-making process. It is about developing an appropriate policy regarding environmental agreement in principle with the social, can turn into a powerful marketing tool if used correctly.

Keywords: sustainable development, environmental audit, small and medium size enterprises, costs

I. INTRODUCTION

Actually in Romania, a large number of SME do not spend money on innovation and do not allocate any of their incomes on research and development activities. The major part of SME has reduced their investments in the last years. If we consider environmental issues, this is a discussion, which does not affect one particular country, being in reality a world action with a firm objective of environmental protection. SME in Romania and their large representation in the economy generate a great impact on the environment. This impact includes air pollution, the use of natural resources, the use of energy, noise, odor, dust, disposal of wastes and so on. The impact that SME activities have on the environment can be turned into a great opportunity to explore the economic advantages with the support of an environmental audit [1, 10, 11, 12, 13].

II. REPORTING ENVIRONMENTAL INFORMATIONS

Considering the tendencies in sustainable development approaches described by researchers and academia, eco-efficiency is oftentimes considered the priority standard for managerial decision making in an

environmental (triple helix model has to be considered) context because it seemingly reconciles the efficient use of capital and the efficient use of environmental resources [6].

Furthermore, since the 1990s, sustainability reporting has become an increasingly relevant topic in business (macroeconomic and microeconomic levels) and different stakeholders as responsible staff or policy makers, consultants, researchers and academic staff and researchers were focused on defining a general framework, model or approach for those kind of analysis, evaluation and reports. In this context, literature is still limited and no major state-of-the-art based on relevant studies or latest approaches and developments have not been presented since 2013.

One important synthesis in the field has been published by Hahn and Kühnen (2013). Their research provides a "review of 178 articles dating from 1999 to 2011 from journals related to business, management, and accounting" [8]. Their research article aims to "identify what determinants of sustainability reporting are examined in the literature and to identify (in)consistencies, gaps, and opportunities for future research". They have presented "specifically illuminate factors influencing the adoption, the extent, and the quality of reporting". Based on their findings, Hahn and Kühnen have provided "an otherwise often missing link to theory (especially legitimacy, stakeholder, signaling, and institutional theory)" [8].

Unlike traditional management accounting, environmental management accounting (EMA) offers an abundance of information to both internal and external users. SME and the environment have a continuous interaction and the general standards and approaches have to be reconsidered and adapted for their practical use and exploitation. Nowadays, EMA use is associated with environmental strategy (planned or implemented), organizational dimension (small or medium enterprise) and to aspects related to

¹ Politehnica University of Timisoara, Faculty of Management in Production and Transportation, 14 Remus str., 300191 Timisoara, Romania, e-mail: alin.artene@upt.ro

² Politehnica University of Timisoara, Faculty of Management in Production and Transportation, 14 Remus str., 300191 Timisoara, Romania, e-mail : vasile.duran@upt.ro

environmentally-sensitiveness of the industry where the SME is related [2, 5, 7]

According to Christ and Burritt researches, that were published in 2013, "EMA has received increasing interest in recent years and has been promoted as a means by which the business community can more easily manage its environmental and associated economic performance" [4].

According to Ricoh Group [14], a way of presenting environmental information is the preparation of plans, which would reflect the processes and fluxes concerning the recycling activity or reincorporating raw materials, energy and water. From the perspective of Ricoh Group, to become the type of organization that is envisioned by its top management team there have to be realized changes for the creation of a sustainable organization that has to be integrated in a sustainable society, that has to change into a sustainable one. "In 1994, Ricoh established the Comet Circle as the basis to encourage such change. The Comet Circle expresses the greater picture of the environmental impact reduction scheme, which includes not only the scope of the Ricoh Group as a manufacturer and sales company but also the entire lifecycle of our products, including

upstream and downstream of our business activities. Being well aware that product manufacturers like Ricoh, because of their involvement in the early phases of a product's lifecycle, can make the greatest contribution to reducing environmental impact, we engage in all business taking into account the Comet Circle" [14].

As it is presented in Figure 1, the flow of the Comet Circle is described by different cycles. Each cycle represents the partners that can be attracted and that could support the development of a sustainable society. "The new resources harvested by the materials supplier from the natural environment (upper right) will be turned into a product through moving from right to left along the upper route, finally reaching the users (customers). The used products will follow the route below from left to right" [14].

The Comet Circle model could be a good practice, an example to be followed by other companies that started to follow sustainable principles. In this context, SME in Romania have to consider all their activities in order to develop a long term plan for sustainable development [1, 10, 11, 12, 13].

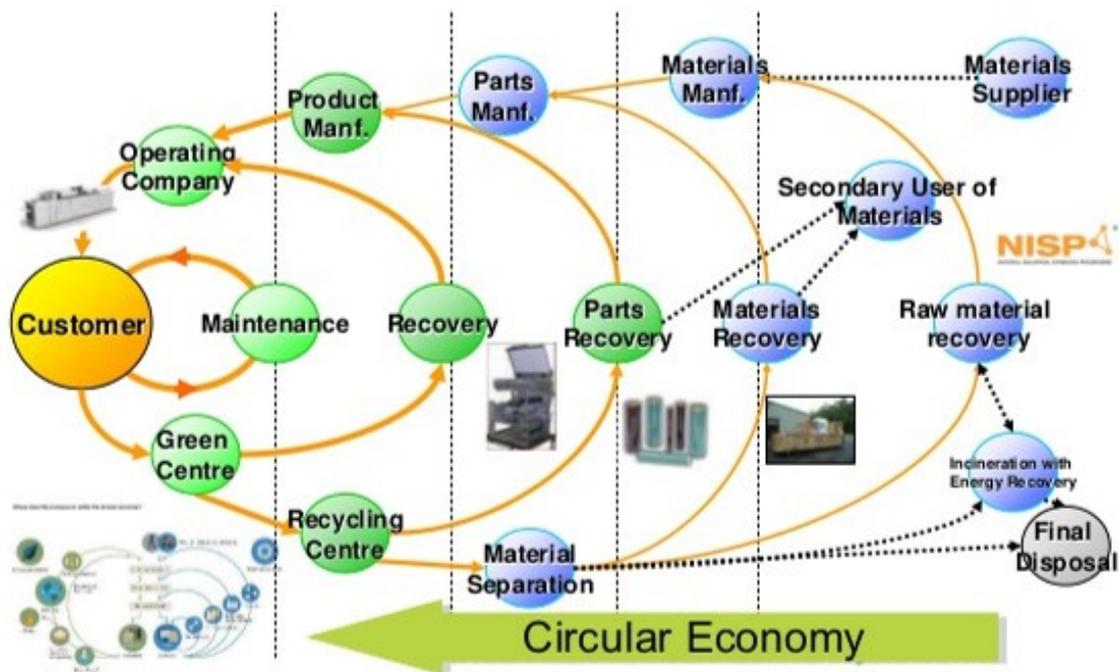


Fig. 1. The Comet Cycle for sustainable SME [14]

III. ENVIRONMENTAL AUDIT IN SME – A PROPOSED FRAMEWORK

Environmental audit should provide management with sufficient information to control, plan and check activities that can have an impact on the environment.

At the same time, it facilitates assessing the adequacy of the entity's environmental policy.

In our opinion an environmental audit objectives are very broad and diverse and depend largely on the characteristics of the activity, the audited entity and the environment in which it is located. The Proposed framework for the environmental audit of SME is depicted in Figure 2.

The main objectives of an environmental audit within Romanian SME, in the proposed framework vision, have to take into consideration the following aspects of the general audit procedure:

- To study the system documentation to determine if they match the corresponding reference standards;
- To establish the level of compliance with procedures, as part of the Environmental Management System;
- Verify that all departments and levels of the organization follow the procedures for technical requirements set;
- To determine the degree of conformity of the management system audited or certain parts of it, with audit criteria action;
- To assess the ability of the management system to meet the objectives specified;

- To propose corrective actions and improvements necessary to succeed the procedures and objectives;
- To prevent a recurrence of the problems

An environmental audit is an indispensable tool in the certification process of an environmental management system within SME.

Traditional Auditors lacked knowledge regarding environmental issues, and those who were involved in environmental auditing, formed multidisciplinary teams to combine knowledge of several persons.

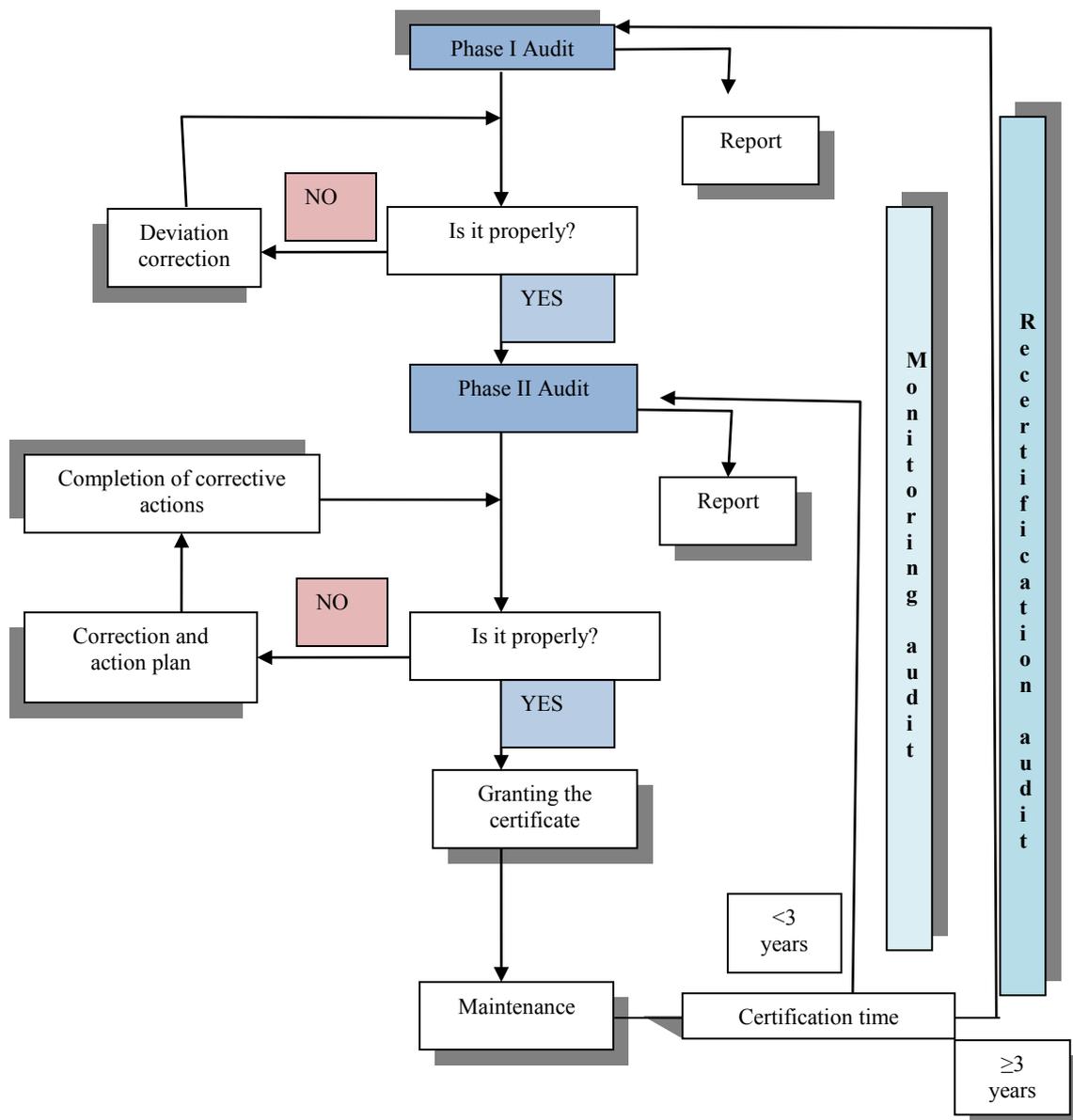


Fig. 2. Environmental audit within SME [1]

IV. CONCLUSION

Environmental audit presents both negative and positive aspects. In the case the negative aspects, we could mention the cost of the environmental audit, which is obviously a negative aspect.

The nature of environmental audit questions the subject; which must bear the costs of collecting and presenting the environmental information. In the same way that financial audit and internal audit, SME must support the costs, which may vary considerably regarding the type and purpose of the audit.

Another disadvantage of reporting environmental information in Romanian SME is that environmental audit may reveal breaches of environmental regulations, which could have a negative financial impact on the entity and can have negative financial consequences, on the image of entity, resulting in loss of customers or loss of investor confidence.

In case of SME in Romania, the environmental audit may affect the operations of SME, even though adequate planning can sustain the diminishing of this risk. In Romania, some SME would rather not know or may not disclose a range of issues, which are facing because knowing those issues must assume their obligations for correction [1].

Environmental audit also, has many benefits. The greatest benefit of environmental audit, is the gradual reduction of the company risk.

Through environmental audit SMEs understand the relationship with the environment, find the problems that may occur and thereby can create a competitive advantage.

One other benefit environmental audit has over SME is providing data to support management decisions, debt security, creating an additional tool for evaluation of compliance a management better aid in educating employees and a tool for public relations and marketing.

Balancing these advantages and disadvantages will influence SME decision to carry or not an environmental audit.

We consider that, in financial terms, an environmental audit is profitable if the costs avoided as a result of environmental audit conducted (penalties, lost time of production, costs of cleaning the area) exceed the cost

REFERENCES

- [1] Artene A. „*Auditul sistemelor de management al mediului*”, Ed. Eurostampa, Timisoara: 2011.
- [2] Bennett, M.; Schaltegger S.; Zvezdov D. “Environmental management accounting”. *Review of Management Accounting Research* (2011): 53-84.
- [3] Biondi, V.; Frey, M.; Iraldo, F. „Environmental management systems and SMEs: Motivation, opportunities and barriers related to EMAS and ISO 14001 implementation”, *Greener Management International*, vol. 29 (2000): 55-69.
- [4] Christ, K. L.; Burritt. R. L. “Environmental management accounting: the significance of contingent variables for adoption.” *Journal of Cleaner Production* 41 (2013): 163-173.
- [5] Ferreira, A.; Moulang C.; Hendro B. “Environmental management accounting and innovation: an exploratory analysis.” *Accounting, Auditing & Accountability Journal* 23.7 (2010): 920-948.
- [6] Figge, F.; Hahn T. “Value drivers of corporate eco-efficiency: Management accounting information for the efficient use of environmental resources.” *Management Accounting Research* 24.4 (2013): 387-400.
- [7] Herzig, C., et al. “Environmental management accounting.” *Case studies of South-East Asian companies*. Oxon: Routledge (2012).
- [8] Hahn R.; Kühnen M. “Determinants of sustainability reporting: A review of results, trends, theory, and opportunities in an expanding field of research.” *Journal of cleaner production* 59 (2013): 5-21.
- [9] Markandya, A., Tamborra, M. „Green Accounting in Europe. A Comparative Study”, Edward Elgar Publishing, UK, (2005).
- [10] ***, McGraw-Hill „Dictionary of Environmental Science”, McGraw-Hill Companies, USA, 2003
- [11] EUROSTAT, „Environmental Expenditure Statistics – General Government and Specialized Producers”, Data Collection Handbook, (2007).
- [12] *** <http://www.iso.org/iso/home.html>
- [13] ***
<http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home>
- [14] ***
<http://www.ricoh.com/about/sustainability/topics/environment/>

Accrual Accounting and Performance of the Public Sector

Rodica Gabriela BLIDISEL³

Abstract – The improvement and the measurement of performance in public sector have preoccupied governments for at least half a century. Over the past two decades, public sector performance has taken on special urgency as more and more countries have faced recessions, increase of more and better public services demands, and higher taxes paid by the citizens. Accompanying these pressures have been demands for a better accounting system. The paper explains the reform process in the public sector in order to improve its performance, the measurement of performance in public sector and differences between public and private sector. The paper contributes to a better understanding of performance measurement and public sector accounting and opens a new perspective in the Romanian public sector.

Keywords: Performance measurement, public sector, accrual-based accounting and management accounting

I. INTRODUCTION

Accounting plays an important role in public sector affairs. The past two decades have witnessed an increased progression towards improved financial management and harmonized accounting and budgetary procedures across all levels of public sector. Put together, economic constrains, greater demand for improvement in the financial accountability of public sector bodies, efficient use of public sector resources and more assessment of the public sector performance have placed existing government mechanisms for financial planning, budgeting and control under review [6, 7].

In addition, more emphasis is being placed on the economic cost and the consequences of public sector activities [8]. The need for such a review and consequent reform is justifiable in view of the important role of accounting in the public sector.

Traditionally, public sector had operated on a cash-based accounting system. The main objective of the public accounting system was to control cash spending in accordance with parliamentary limits customarily set by the budget [12].

Under cash-based accounting, receipts are recorded when received in cash and payments are recorded when cash is disbursed. Thus, cash-based financial statements show sources of cash receipts, the allocation of cash expenditure and provide a comparison of actual against budgeted expenditures [4]. Capital assets are treated as ordinary expenditure having the entire cost charged against the year of purchase. The existence of a considerable investment in unrecognized cost at the end of any fiscal period should be an important factor in decision relating to budgets and appropriations [2].

Over time, major changes in public accounting sector have evolved to a series of innovations directed toward improving the economy, enhancing the efficiency and effectiveness of public activities and then, providing better accountability for public sector. All over the world, public sector has undergone radical changes in their accounting systems, which were often directed toward replacing the traditional cash-based accounting with accrual – based accounting as practiced in the private sector [13]. The adoption of the private sector accounting techniques within public sector accounting is expecting to enhance the efficient allocation of resources through the provision of relevant, reliable, comparable and understandable information about finances and programs and activities costs. This advantage is capitalized on by the fact that accrual-based accounting could be able to enhance public sector accounting by providing useful information, which would play a major role in measuring project costs and benefits, asset valuation, management control, and to maximize the resources utilization efficiency.

In order to achieve the desired outcomes, the public sector needs to produce outputs (goods and services) which are specified in terms of quantity, quality, cost, time and purpose (as a means to allocate resources and measure performance) [6, 7, 9, 10, 12].

Public sector reform in accounting system has been initiated for many years in different countries around the world. Despite the relative advantage of

³ West University of Timisoara, Faculty of Economics and Business Administration, Accounting and Audit Dept.
Blvd. Pestalozzi 16, Timisoara, Romania, e-mail: rodica.blidisel@feaa.uvt.ro

publications favoring the adoption of accrual-based accounting in the public sector, the system has not been without criticism.

According to Mellet, 1997, the major changes of accrual relative to cash-based accounting are “adjusting revenue income and expenditure cash flows for changes in working capital, and operating a system of depreciation accounting” [12]. However, Guthrie, 1998 points out that the only difference between the two bases of accounting is the timing of the recording of transactions, but the timing of recording economic transactions is vital for management decision-making and accountability.

The 1980s have witnessed a growing interest in public sector accounting. However, its theoretical framework is still undeveloped. In the absence of conceptual framework for public sector accounting, the results of managerial activities aimed at public sector delivery are reported under a framework designed for and developed in a profit-oriented environment. A common framework for public and private sector does not necessarily result in the same accounting practices because of the variation of the actual practices being operated and the interpretation of concepts between the two sectors.

Romania adopted the accrual accounting system starting with the budgetary year 2006 in order to disclose the economic and financial results for the measurement of revenues and costs, which help in the decision-making process, it serves the basic financial needs for programming and appraisal of performance.

II. PERFORMANCE EVALUATION IN THE PUBLIC SECTOR

Over the past two decades, the cost of public sector, generally, has grown dramatically. It is widely believed that the inefficiency of public sector institutions has contributed, at least in part, to this cost increase. Therefore, an extensive body of literature has addressed the issue of performance efficiency and its measurement in public sector.

The Romanian government, as many other governments around the world, has been trying to provide its citizens with the best possible services despite the limited resources available on hand. Reforms have been proposed and designed to improve the performance of the financing, human and physical infrastructure bases of the public programs while assuring effective co-ordination with the substantial delivery and technological capacity of the private sector.

An important feature of many ‘new public management’ reforms initiated over the past two decades is the preoccupation with public sector performance measurement despite the many facets and permutations of such reforms observed in international, comparative studies [14].

Performance measures in public services have a long history, but have been developed and increasingly emphasized recently.

Performance measurement can be very difficult in the public sector in general. Having multiple objectives and providing several homogeneous types of services to a wide range of recipients, measuring performance based on the value of outputs may be extremely difficult, because such measurement as that in monetary terms is not available in these organizations. This fact is very important for the management control systems and maintains that measuring the revenue collected from clients could facilitate both measurement and the amount of services.

Cost and performance criteria

In the nationalized industries and in other public trading organizations the concepts, criteria and systems of performance measurement and evaluation are closely similar to the practice of the private sector. In essence there are geared to the measurement of profit or profit contribution assessed at several levels: overall, by segment or division, by site or unit, and by product or service produced and marketed [5].

In the field of public services, there is no single, tangible, easily quantifiable operational objective to take the place of operating profit, and so more complex concepts and measures of objectives and performance review are needed. These include economy, efficiency, effectiveness and value for money.

- Economy defines the minimal cost of inputs to an activity, whether achieved by purchasing cheaply or by closely restricting the consumption of resources.
- Efficiency defines the relationship achieved between the outputs of a service or activity (such as the number of examined students) and the volume or value of inputs consumed (e.g. teaching time, books, space and heating) in generating those outputs.
- Effectiveness relates to the degree of success or failure attained in meeting objectives.

Increasing the value for money from public expenditure may require a change of attitudes of cultural behavior among the management in public sector, while the traditional approach was to emphasize the quality of professional service, within available funding.

Measuring the resources put into public sector organizations is easier than measuring how effectively those resources are used. However, the measures of cost used in public services decision-making, control and performance review are not different in concept or definition from those normally used in business management accounting, even if the feasibility of producing certain types of cost information may be different. Only a few public services are organized on a “factory production line” basis.

The costing situation approximates to process costing, batch costing, or costing of customized contract units of output (e.g. hospitals have a unique treatment need which is customized as long as

resources permit). Thus data collection for the monitoring and cost control of public services can be complex and expensive. Simplified, cost concepts and measures can be subdivided between those especially relevant for planning and decision-making, and those continuously relevant for routine output costing, budgeting and formal performance review systems. The first subdivision, the cost concept is relevant both in the public and in the private sector. The second subdivision, cost concepts and measures for use in routine costing, budgeting and performance measurement, comparability between public services and trading organizations, public or private, is much weaker. Whereas most trading organizations produce or distribute a largely standardized product or service, a high proportion of public services are labor-intensive with the input/output requirements tailored to the individual needs of beneficiaries (e.g. hospital patients, university students). Therefore, the commercial accounting techniques such as "standard costing" have a much more limited range of application in the public sector. However, standard costing may become increasingly important for measuring and controlling intermediate outputs of public services.

Many performance measures have been criticized for undermining the overall quality of service in pursuit of narrow targets, while private firms have increasingly adopted a 'balanced scorecard' approach, involving a range of measures that include finance, business processes, customers and innovation. Whilst originally developed in the private sector, there are indications that this model is beginning to diffuse to public sector organizations [1]. However, the public sector is different from the private sector, especially regarding the purpose, scope and method of performance measurement.

Balanced Scorecard for the public sectors

The Balanced Scorecard has risen to the performance measurement challenge of the private sector and is equally well-equipped to facilitate a rapid and dramatic transition of 21st century public organizations.

a) The top of the Balanced Scorecard is represented by the mission - In the Balanced Scorecard model addressed to the profit organizations, all of the measures appearing on the Scorecard should lead to improved bottom line performance. Improving shareholder value is the end game for profit seeking enterprises and they are accountable to their financial stakeholders to do just that. This is not happening in public sector.

Public organizations are accountable for the efficient allocation. They exist to serve a higher purpose, for example, reducing the incidence of HIV, teaching the pupils, or increasing public safety. To include such lofty objectives on Balanced Scorecard could be hesitant because of the missing of the total control over the mission, it can't influence the outcomes. In the same context, the mission can't be

achieved overnight, and in fact may see only periodic movement. This is precisely why the other perspectives of the Balanced Scorecard are so vital. Monitoring performance, and learning from the results, in the customer, internal process, employee learning and growth, and financial perspectives provide with the short to medium term information required to get closer to achievement of the mission.

b) Strategy Remains at the Core of the Balanced Scorecard - Strategy remains at the core of the Scorecard system. Public organizations often have a difficult time cultivating a clear and concise strategy. Strategy regards those broad priorities planned to pursue in order to achieve the mission. Once developed a strategy the Balanced Scorecard serves as the device for effective translation and implementation.

c) The Customer Perspective is important - A clear distinction between private and public sector Balanced Scorecards is drawn as a result of placing mission at the top of the framework. Flowing from the mission is a view of the organization's customers, not financial stakeholders. Achieving a mission does not equate with fiscal responsibility and stewardship; instead, the organization must determine who it aims to serve and what how their requirements can best be met.

The profit organizations are accountable to their capital providers (shareholders) for results, and they monitor this accountability through the results attained in the financial perspective of the Scorecard.

This is not the case in the public sectors. Here the focus is on customers, and serving their needs in order to accomplish the mission. But the question of "who is the customer" is one of the most perplexing issues that public sector Scorecard adopters face. In this sector different groups design the service, pay for the service, and ultimately benefit from the service.

This web of relationships makes determining the customer a difficult challenge. Establishing the real customer in many ways depends on the public organization perspective. In the field of public sector, the legislative body that provides funding is a logical choice, as is the group served.

Including all customers is permissible and possible using the public sector Scorecard framework. Not only is it possible, it's desirable since meeting the mission will most likely entail satisfying disparate customer groups. Each group of customers identified will likely result in different measures appearing in the other three perspectives of the Scorecard. Once public sector managers have made their way through this twisted maze, the job of choosing performance measures in all perspectives becomes much simpler.

d) Financial Perspective - No organization, regardless of its status, can successfully operate and meet customer requirements without financial resources. Financial measures in the public sector Scorecard model can best be seen as either enablers of customer success or constraints within which the group must operate. When services are performed at

least cost, or with great efficiency, the program will likely attract more attention and warrant even greater investment from funders.

e) Internal Processes - Every organization will have documented processes for establishing their goals. The key to Balanced Scorecard success lies in selecting, and measuring, just those processes, which lead to improved outcomes for customers, and ultimately allow the working towards the mission. The process choose to focus on will normally flow directly from the objectives and measures chosen in the Customer perspective. It's not uncommon for the Internal Processes perspective to house the greatest number of objectives and measures on the Balanced Scorecard.

f) The Employee's Learning and Growth - Operating as mission-based organizations, public sector organizations rely heavily on the skills, dedication, and alignment of their staff to achieve their socially important goals. Employees and organizational infrastructure represent the line that weaves through the rest of the Balanced Scorecard. Success in driving process improvements, operating in a fiscally responsible way, and meeting the needs of all customer groups depends in a large extent on the ability of employees and the tools they use in support of the mission [11].

Motivated employees with the right mix of skills and tools operating in an organizational climate designed for sustaining improvements are the key ingredients in driving process improvements, working within financial limitations, and ultimately driving customer and mission success [2].

III. CONCLUSIONS

In the international context, and particularly in Romanian public sector, accrual accounting must be considered not a „magic bullet” for improving the performance of the public sector, but a simply tool for getting better information about the true cost of public sector institutions. It needs to be used effectively and in tandem with a number of other management reforms in order to achieve the desired improvement in decision-making in the public sector. The paper tried to discuss some approaches regarding the performance evaluation in public sector, developing a model of balanced scorecard that fits the public sector.

The drive to complement financial performance measures with broader measures of performance in the private sector has led to the common introduction of a “balanced scorecard” approach.

This approach takes the organization's strategic objectives as the starting point and creates a broad set of measures linked to achieving these objectives in the following four areas: finance, business processes, customers and innovation. Most performance measurement in the public sector already uses a range of indicators, not only financial ones. But little research has yet been conducted into the links

between strategy, performance measures and accounting in the public sector.

The paper tries to provide a better understanding of how performance is managed in the public sector and the link between strategy, performance measures and accounting. In addition, the study aims to encourage the spread of best practice where feasible.

The advantages of adopting a balanced scorecard in the public sector are represented by:

- A strategic performance management system for the whole organization;
- A communications tool to make strategy clear to everyone;
- A way to balance financial and non-financial views of organization performance;
- A journey;
- A system for increasing accountability;
- A commitment to change;
- A way of aligning organization vision with human and capital resources, and with day-to-day operations.

The limits of the paper are that the adapted Balanced Scorecard model to fit the public sector is only a theoretical approach. The model could be extent in numerous case studies, the author reserving this objective to subsequent papers.

The Romanian public sector is at the beginning of the implementation process of the “new public management” reform. The results of the movement from the cash-based accounting to the accrual-based accounting system should be reflected especially in the improvement of the decision-making process, serving the financial needs for performance appraisal. The public sector balanced scorecard approach could be a step forward in the performance management and accounting of the Romanian public organizations.

REFERENCES

- [1] Aidemark L. G. “The meaning of balanced scorecards in the health care organization”, *Financial Accountability & Management*, 17(1), 23–40 (2001).
- [2] American Accounting Association (1972), Committee Report on not-for-profit, *Accounting review*, 227-249.
- [3] Evans P.; Bellamy S. “Performance evaluation in the Australian public sector - The role of management and cost accounting control systems”, *International Journal of Public Sector Management*, 8(6), 30-38 (1995).
- [4] Guthrie J. “Application of actual accounting in the Australian public sector – rhetoric or reality”, *British Journal of Political Science*, 14(1), 1-19, (1998).
- [5] Henley D.; Holtham C.; Likierman A.; Perrin J. “Public sector accounting and financial control”, Third Edition (Van Nostrand Reinhold (International) *Series in Accounting and Finance*, 16) (1989).
- [6] Hofstede, G. “Management control of public and not-for-profit activities”, *Accounting, Organizations and Society*, 6, 193–211 (1981).
- [7] Hood C. “The *New Public Management* in the 1980s: variations on a theme”, *Accounting, Organizations and Society*, 20(1), 93–109 (1995).
- [8] Hopewood A.G.; Tomkins D. “Issues in public sector accounting”, *Oxford Philip Allen*, 10-15 (1994).
- [9] Ittner C. D.; Larcker D. F. “Innovations in performance measurement: trends and research implications”, *Journal of Management Accounting Research*, 10, 205–38 (1998).

- [10] Kaplan R. S. "The balanced scorecard and nonprofit organizations", *Balanced Scorecard Report*, November-December, 1-4 (2002),
- [11] McDavid J.C. "Public sector performance and accountability from a manager's perspective", University of Victoria, Speaker's notes for a Faculty colloquium held in the School of Public Administration, January, 14, 1-7 (1988)
- [12] Mellet H. "The role of resource accounting in the UK government's quest for better accounting", *Accounting and Business Research*, 27(2), 157-168 (1997).
- [13] Olson O.; Guthrie J.; Humphrey C. "Global warming: Debating international developments in new public financial management", Oslo: Cappelen Akademisk Forlag as (1998).
- [14] Pallot J. "Elements of a theoretical framework for public sector accounting", *Accounting, Auditing & Accountability Journal*, (1), 38-59 (1992).

Taking the Leap to Agile Manufacturing: From Intention to a Successful Paradigm Shift

Alexandru CANDA⁴

Abstract – The paper presents the agile principles with the needs origin analysis for the definition and design of a new business management paradigm (convergent to a business model) combining two dimensions: (1) organizational behavior related to their competitiveness on the market and (2) the internal environment characteristics focused on human resources management. In addition, there are presented the implementation phases of the proposed business model (as strategic options at the organizational level) and challenges for the organization's project team, by underlining the leadership aspects as key issues in a successful implementation of agility throughout the company.

Keywords: agility, agile enterprise, leadership, people management, change management

I. INTRODUCTION

As the business companies constantly develops strategies to dominate the existing markets and in the same time are looking forward for ways to approach the emergent markets, it becomes more and more clear that there is a need for methods and paradigms that will offer viable solutions to these complex business situations. In the last twenty years more and more companies looked forward for such a paradigm that initially emerged from the IT/programming area: The Agile Programming has been turned into The Agile Business, The Agile Enterprise or The Agile Manufacturing. The core of this new philosophy is summarized in Figure 1.

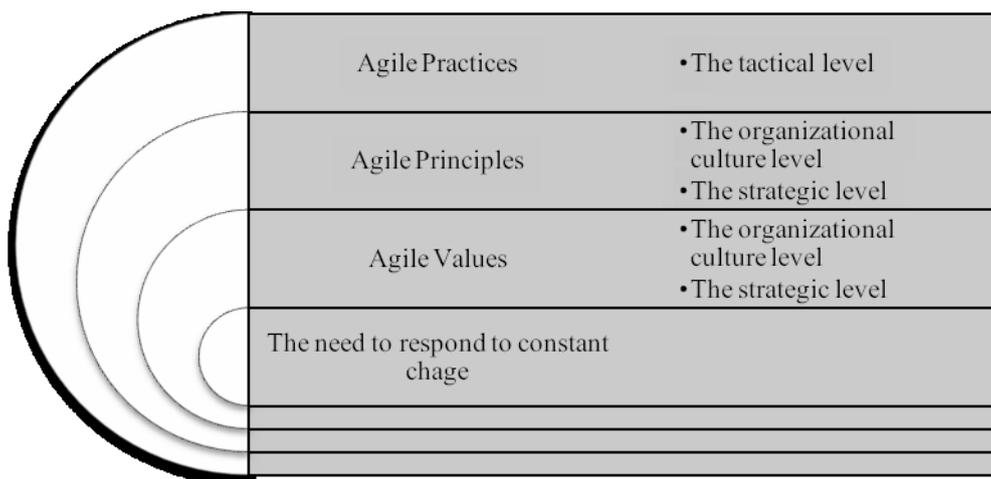


Fig. 1. The relationship between the agile values, principles and practices [22]

Beyond the changes coming from the different market rules and the increasing range of competitors, the companies must also take in consideration the ever-changing political scenes all over the world – targets of these changes are especially the western firms that are players on the global markets [6]. Even if the companies have already a background history for doing business abroad, they are now facing these

situations especially in the emerging markets and economies. Basically, they must face a strong competition from the existing companies on these emerging economies – companies from countries like China, India and Brazil. And these are competitors that have not only political support, but also have powerful resources (both in human resources and financial capital).

⁴ Simens Continental Automotive Timisoara, Romania, and PhD. at Politehnica University of Timisoara, Faculty of Management in Production and Transportation, 14 Remus str., 300191 Timisoara, Romania

In order to penetrate these markets and achieve success in profit, the companies must have in focus the fast response, growing the agility and a decreasing of internal bureaucracy [8]. Beyond this competition, social pressures and the fragmentation of mass markets, the firms must take into consideration the

constantly evolving customer expectations [9]. This new tendency and organizational behavior is shown in Figure 2 by the representation of the creating (or sometime the co-creating) of customer value.

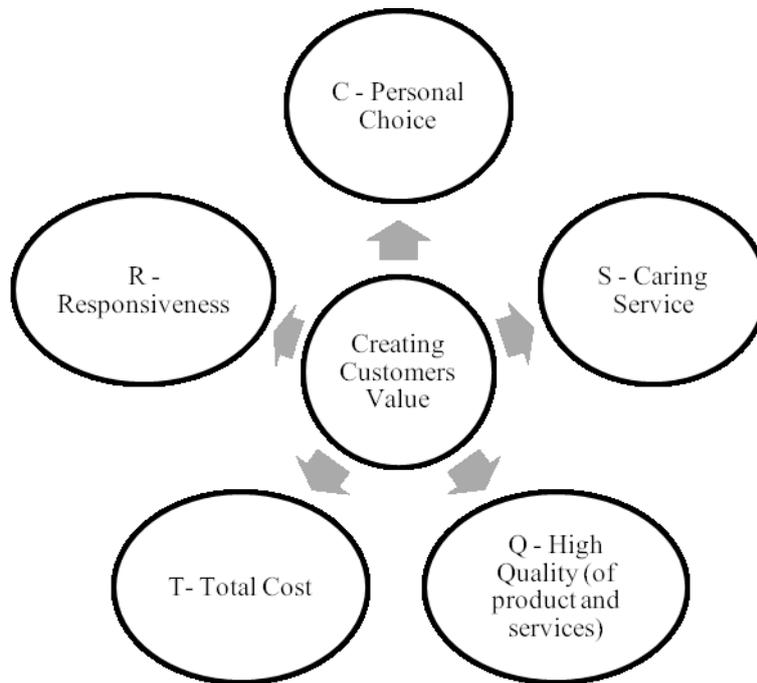


Fig. 2. World-Class Positioning (the competitive business edge - creating customer value) (adapted from [10])

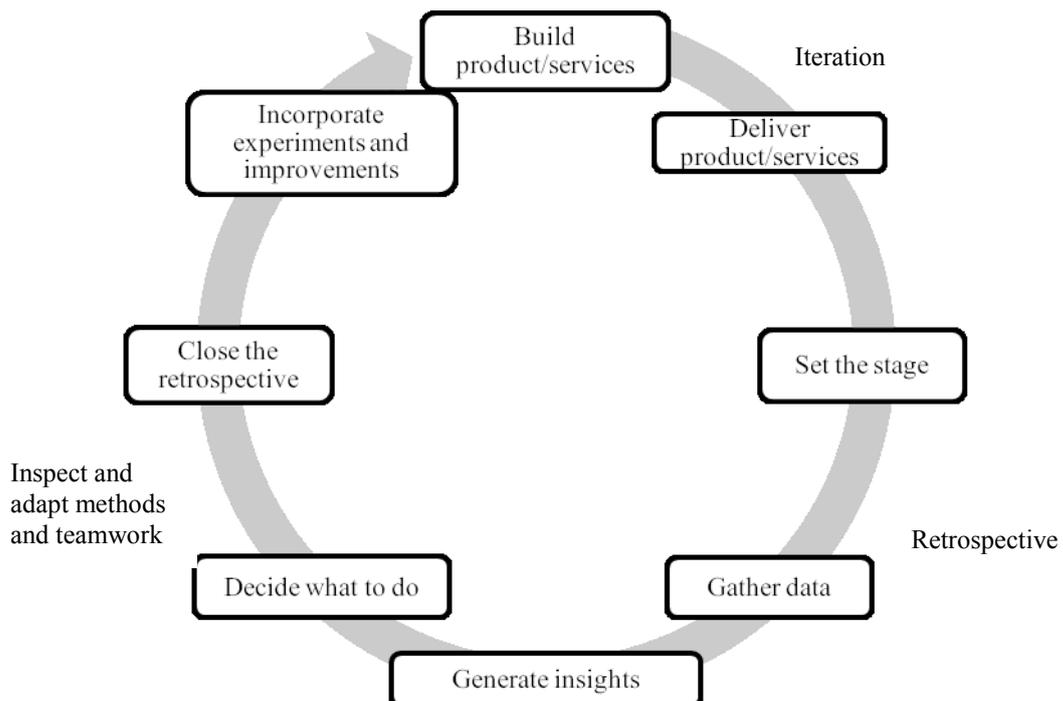


Fig. 3. Retrospective steps as part of an iterative life cycle (adapted from [4])

All this effort to face these changes must be allocated and assumed by the whole organization, so, agility is not only a strategy developed from a new paradigm, but it also includes the methods and tools applicable for each level of decision and action inside the company. Thus, the firms must find ways to anticipate or adapt to uncertain or changing environments [2] in order to achieve competitive advantage and, furthermore, to generate changes in the business environment (by high focus on innovation).

The company's board as well as all the management levels must place a higher focus on areas of expertise such as change and risk management, research and development, innovation, contingency (including uncertainty and complexity) management and leadership (including the implementing of AOC – Agile Orientated Culture – through all the organization).

II. THE AGILE SUCCESS: TRANSFORMING FROM THE INSIDE OUT

There is no bulletproof or state of the art method that guarantees a successful implementation of the agile paradigm inside a company. Each firm, each area of business and each level of implementation represents a specific situation that will be treated related to the specific conditions. Thus, when a change or perturbation in the business environment occurs, the company will respond in a specific way by deploying its own agile characteristics [21].

The first step for such a large-scale project, that will have an effect on the whole organization, must be the constant support and reinforcement from the core management of the company. People must be made aware of this support from the management, but also, the management must have a constant review of the implementation status together with the agile champion (the manager – very important to be on executive level – responsible for triggering the implementation of the paradigm) and with each department leader.

The agile project team must prepare in the beginning the knowledge data base for this project – this will be a central point for reference not only in the beginning of the project, but also during the implementation (as weekly action list with open/closed actions), at the end of the implementation (as retrospective) and also after the end of project (as lessons learned, helpful for other implementations in other departments /branches) (see Figure 3).

Through all this process of implementation, it must be kept in mind that the transformation of the company into an agile one is done in small steps, with functionality delivered in smaller, more frequent increments all the way through a project – all this project to be constantly evaluated for possible new directions [15]. In the same manner, the agile design must be continually verified [1] for the new implementations that will be performed in the

following time frames. Still, the implementation of new changes must not stop only at one project or one area, but it is essential for reorganization to become a routine [16] in order to achieve a specific mind set of the project team – the team that will eventually deliver the expected successful agile results.

As a basis, agile methods emphasize strong adaptability. Consider three main areas [17]:

- a. The market, which might demand different features today from those you're building;
- b. The technology, which makes new things possible by changing all the time but also sets limits that we might not discover until we're some way through the project; and
- c. The process itself.

Adaptability must become necessary; it has to be transformed into a skill throughout the organization and it must be implemented not only as an approach, but also as a mindset of the people (human resources). Thus, besides the fact that the change and the uncertainty will become a desirable situation, the constant flow of information and the ability to establish partnerships very quickly - and to break them just as quickly also [18] must develop into a real company culture.

As a practical implementation, these agile tools are applied in three steps [21]:

- a. Determining the drivers of agility for the company;
- b. Determining the required capabilities;
- c. Determining the practices and actions.

Even if during the implementation difficult or new situation will emerge, the project team must work to overcome these issues through synergy of all levels of decision and action. As well noticed by Christman and Frederick (1996), firms that try to become agile, and fail, have three things in common [3]:

- a. A short-term focus on cost;
- b. A lack of systemic approaches;
- c. Missing links with customers and markets.

The new agile paradigm must not be seen as a contradiction with the existing models or flows of information. Not only that the agile way must be implemented in steps, but there must be also a reconciliation between the agile methods and the existing architectural paradigms of the company [19] – basically, you will have a mix of tools and methods that are working together in order to achieve the same goal. The agile paradigm is not a tool itself, but an intelligent way to combine and feasible use the existing tools or the new – innovated ones.

For that matter, the research and development must be a central part of the organization, not only a supporting department, but one that has constant contacts with the productive departments and it is involved in all the steps of production for additional support or necessary modifications. To promote these innovations, IT environment is a powerful tool [9] that helps to spread efficiently the knowledge throughout the organization.

III. THE AGILE LEADERSHIP: LEADING FOR CHANGE

From agile point of view, the leadership skills of the managers represent an important part needed for a successful implementation of the new paradigm. And this refers not only to the leadership of the champion/project manager that will lead the implementation team, but refers also to the leadership of the whole organization [13] and, more specific, of the management of each department/area.

Nowadays, there are more and more decentralized businesses, but there is also the same decentralization inside the organizations and even the departments. In order to manage this flexibility obtained through decentralization and empowering the people at the lower levels of decision, it emerges

the need for better equipped leaders [6] that are able to actively and effectively manage change.

An important side of this is the size of the team - larger teams tend to be less tolerant to change [19]. The same situation is observed at the organization level, with the observation that larger organizations are weighed down with people with different tacit knowledge, creating difficulties in working together [11]. One of the reason for this difficulties in collaboration is due to different description of the work on the organizational levels [14], thus bringing an additional role for the leader (especially for the agile champion/project manager): the role of creating inter-departmental synergy and to create the mind set within the members of the team towards synergy and collaboration. All of these have a common point in communication within the team and between related departments as it can be seen in Figure 4.

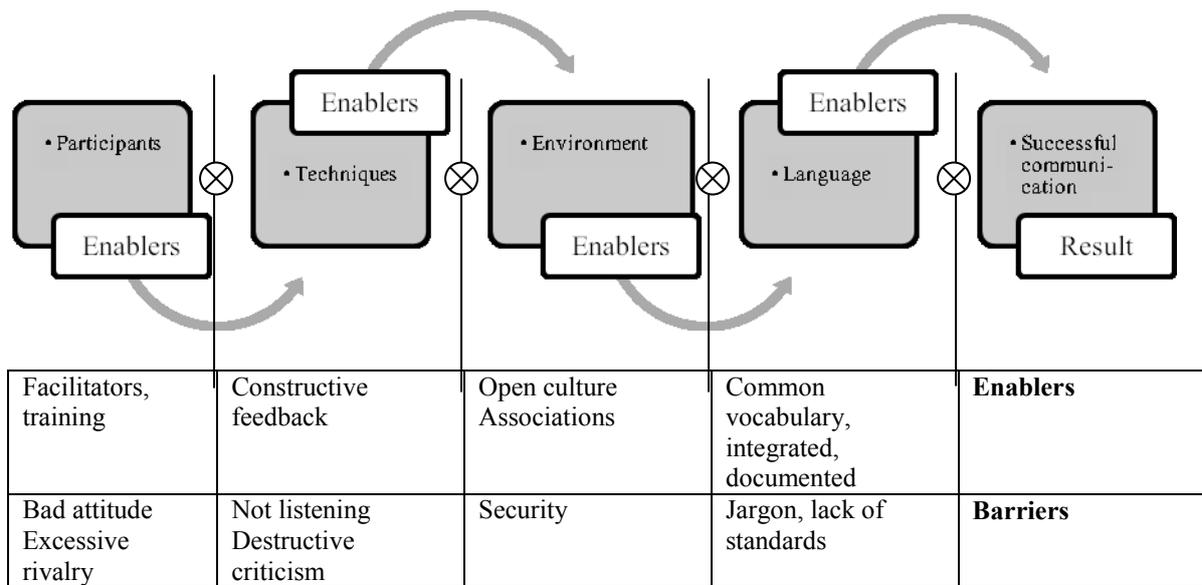


Fig. 4. The Project Management Communication model (developed from [7])



Fig. 5. Issues of developing a culture of organizational learning (developed from [20])

The key word in organizing the size of the team is flexibility – thus, it must be avoided fixed concepts of teams, that will lead only to shortages and resources will be wasted [12]. One important responsibility for this achievements of implementations are also at the

human resources departments and responsible – there must be a constant dialogue not only with the managers for the reported key performance indicators (KPIs) and/or special situation, but mainly with all the people involved in the company in order to have an

accurate barometer of the motivation level and the commitment of the people. The human resources (HR) responsible must work for growing the skills of the team by creating a culture of organizational learning (Figure 5).

To achieve higher levels of innovation and performance, the human resources professionals need to create competitive organizations [6], but also to

include a reward and motivation system that is based on the real needs of the people from the company. Thus the HR have a supporting role for both leadership and for the led people. In this case, a successful method that could be applied is shown in Figure 6, and it is related to the concurrent engineering basic principles.

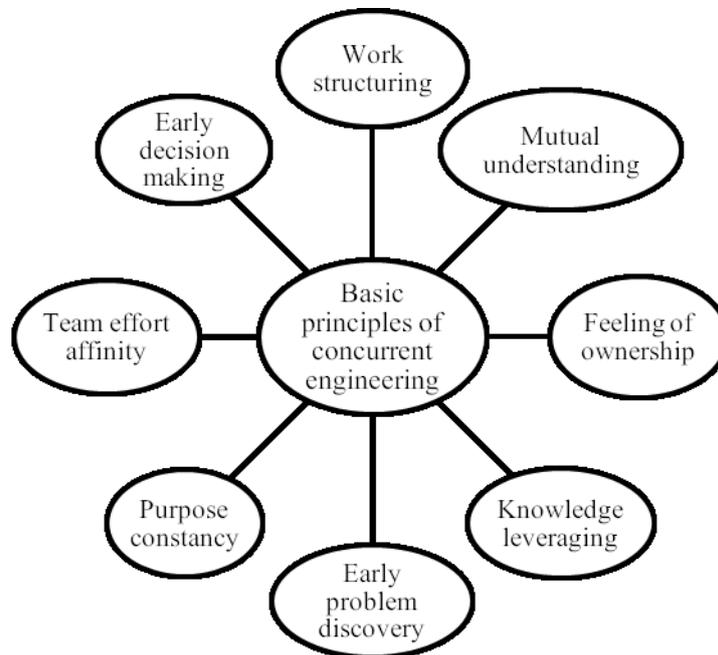


Fig. 6. Fundamental principles of concurrent engineering (developed from [5])

IV. CONCLUSIONS

Within the presented paper it was emphasized the need to transform the company from inside in order to achieve not only the teams agility, but also a strategic agility on the markets. In these conditions of unpredictability and constant change, the fight for profit and market positioning is not lead only by the company's board, but by each individual that is part of the firm.

People must be driven towards innovation and accepting the change as a normal process of a day-to-day business. Each team is an essential cell of this process of implementing the agile methods and mind sets.

One of the key roles in the organization is that of the agile leader – the one that will not only lead the people toward the goals, but also to constantly reinforce the agile principles to the people.

With proper tool and proper mind set, the agile manufacturing can be a successful implementation that will have satisfying results – both for the company as profit, but also for the people as benefits and motivation.

REFERENCES

- [1] Berg, C. ; Ambler, S. "Assurance & Agile Processes", *Dr. Dobb's Journal*, Vol. 31 (2006).
- [2] Caldwell, W. "Building Agile and Adaptive Leaders". *Engineer*, Vol. 39 (2009).
- [3] Christman, W.; Frederick, K. "Why isn't Your Company Agile ?" *Manufacturing Engineering*, Vol. 116 (1996).
- [4] Derby, E. ; Larsen, D. "Agile Retrospectives. Making Good Teams Great". Dallas: The Pragmatic Bookshelf (2006).
- [5] Dhillon, B. S. "*Engineering and Technology Management Tools and Applications*". Norwood: Artech House Inc. (2002).
- [6] Eichinger, B.; Ulrich, D. "Are You Future Agile? " *People and Strategy*, Vol. 18 (1995).
- [7] Forsberg, K.; Mooz, H.; Cotterman, H. "*Visualizing Project Management. Models and Frameworks for Mastering Complex Systems*". Hoboken: John Wiley & Sons Inc. (2005).
- [8] Griffin, B. "Faster, More Agile, Less Bureaucratic". *Army*, Vol. 56 (2006).
- [9] Hai, L. J.; Anderson A.; Harrison, R. "The Evolution of Agile Manufacturing". *Business Process Management Journal*, Vol. 9 (2003).
- [10] Haines, S. G.; Stead, G. A.; McKinlay, J. "*Enterprise-Wide Change: Superior Results Through Systems Thinking*". San Francisco: John Wiley & Sons, Inc. (2005).
- [11] Jacobson, I. "Beyond Agile: Smart ". *Software Development*, Vol. 14 (2006).
- [12] Jiang, J. (1999). Agile Concurrent Engineering. *Journal of Manufacturing Technology Management*, Vol. 10

- [13] Joiner, B. "Guide to Agile Leadership". *Industrial Management*, Vol. 51 (2009).
- [14] Joroff, M.; Porter, W.; Feinberg, B.; Kukla, C. „The Agile Workplace". *Journal of Corporate Real Estate*, Vol. 5 (2003).
- [15] Leaton, R. "Use Agile Method to Stay in Tune with Business Needs". *Computer Weekly* (2008).
- [16] Maskell, B. "The Age of Agile Manufacturing". *Supply Chain Management: An International Journal*, Vol. 6 (2001).
- [17] Mellor, S. "Adapting Agile Approaches to Your Project Needs". *IEEE SOFTWARE* (2005).
- [18] Parkinson, S. "Studies, Flexibility, Technology, Manufacturing". *International Journal of Productivity and Performance Management*, Vol. 48 (1999).
- [19] Reifer, D.; Maurer, F.; Erdogmus, H. „Scaling Agile Methods". *IEEE SOFTWARE* (2003).
- [20] Russ, M. "Knowledge Management Strategies for Business Development". New York: IGI Global (2010).
- [21] Sharifi, H.; Zhang, Z. "Agile Manufacturing in Practice. Application of a Methodology". *International Journal of Operations & Production Management*, Vol. 21 (2001).
- [22] Smith, G.; Sidky, A. "Becoming Agile ... in an Imperfect World", Greenwich: Manning Publications Co. (2009).

Some Considerations about Outsourcing Strategies

Irina COSTESCU⁵, Dan DURAN⁶, Frank Martin RENNUNG⁷

Abstract – Outsourcing represents a huge economic opportunity for a developing any economy. First, the paper presents elements of outsourcing and how the process affects those. Second, are showed several situations that can be used for implemented an outsourcing strategy. The meaning of presenting those different ways how an outsourcing process can be accomplished is to highlight the idea that outsourcing is better to be adapted to the context, because outsourcing includes a wide spectrum of activities, from operationally process to the firms' functions.

Keywords: outsourcing, management, strategies, benefits

I. INTRODUCTION

Outsourcing means to delegate tasks or objectives to an external entity, which has expertise in some areas or offers a better price-quality report. Thus outsourcing has been described as the assignation of services from one company to another. It is essentially a division of labor.

II. OUTSOURCING COMPONENTS

Of the many varieties of definitions we can synthesize that an initiative in outsourcing involves transfer factors of production, of resources used in that specified activity and the rights of decision or responsibilities to take decisions. The organization which transfers all of this is known as a CONSUMER, the organization which effectuates the job and takes the decisions is known as and the SUPPLIER and aim of the activity is included in a PROJECT (Figure 1).

Consumer

First component, in outsourcing, is the customer, which means a person or an organization that wishes to give a project outside. In general, this feature is

intended to use outsourcing as a strategic instrument. The clients may also be categorized by industry and size, so a customer can be a whole organization or just a unit of the organization (a department).

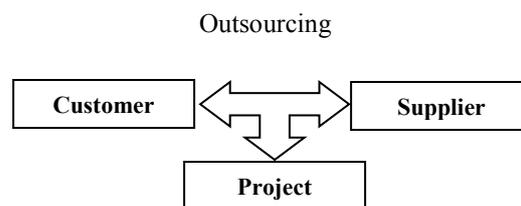


Fig. 1. Outsourcing components

Supplier

A second component of outsourcing is the supplier of processes or services, which will take over the activity and it will unroll through outsourced work. As well the suppliers are classified according to several criteria (location, area, size, number involved in the process). In addition, a supplier may be an external organization (as often happens in the majority of cases), but a supplier can be a subsidiary of the organization. In this second situation customer opens offices in other places, where it is own equipment and transfers in current activities in these locations, due to availability of employment qualified and of the economies of the cost, so the company. Shall undertake, in what might be called outsourcing wholly owned, outsourcing activities by subsidiaries in their possession, where work is realized at a price much lower, but at the same quality.

Suppliers may be classified, depending on their location, such as: some of the suppliers are located onshore, others are located near shore, and others may be offshore.

Depending on the number of partners involved, outsourcing can be: a supplier - a customer; a supplier

⁵ Tibiscus University of Timisoara, Romania, Faculty of Economics, 4-6 Lascar Catargiu str., Timisoara, Romania, e-mail: duranirina@yahoo.com

⁶ Politehnica University of Timisoara, Faculty of Management in Production and Transportation, 14 Remus str., 300191 Timisoara, Romania, e-mail: dan.duran@upt.ro

⁷ T-Systems International GmbH, Germany & Politehnica University of Timisoara, Faculty of Management in Production and Transportation, 14 Remus str., 300191 Timisoara, Romania, e-mail: frnakrennung@gmail.com

- more and more customers; several suppliers - a customer; more than one supplier - more and more customers [3, 4, 5].

Project

The third component of the outsourcing process is even the activity, which can be found in the form of a project, or a process to be outsourced. In the past, best-known form of the activity was manufacturing. Today there is a movement of outsourcing of several forms of activity, such as: development software, or research and development, these projects differ in some aspects of the old projects.

Outsourcing projects also have another important feature, namely, collaboration between organizations that do not necessarily share same interest or same purposes. The organization-client will want to obtain work that has been done in the highest quality, at the lowest cost possible. The supplier wants to maximize the benefits of the project. If those differences of objectives are not managed in an appropriate manner in the course of contract and in phases of negotiation in the life cycle of outsourcing, will give rise to a disastrous business relationship.

In generally, outsourcing may take forms as:

- An activity carried out intern location (in-side) - refers to the provider team, which shall coordinate their activities, at a customer site;

- Or the off-side outsourcing is the activity carried out at the provider location and is the type of outsourcing the most frequently encountered.

III. STRUCTURES AND THE OUTSOURCING CYCLE

From the definitions given to the outsourcing concept and other issues presented in the literature, projects of outsourcing may be structured in different ways [6, 7, 8]. But to note is that whatever structural approach to outsourcing, it is a cyclical process consists of several stages [1]:

1. Strategic evaluation;
2. Analyze needs;
3. Supplier evaluation;
4. Management contracts and negotiation;
5. Initiation and transition project;
6. Relational management;
7. Changes the output continuous or strategically.

The outsourcing life cycle seen by the authors of „The Outsourcing Handbook – How to Implement a Successful Outsourcing Process” has the structure presented in figure no. 2. But some authors specify that every stage of the project has subcomponents and sub-processes to be considered [7].

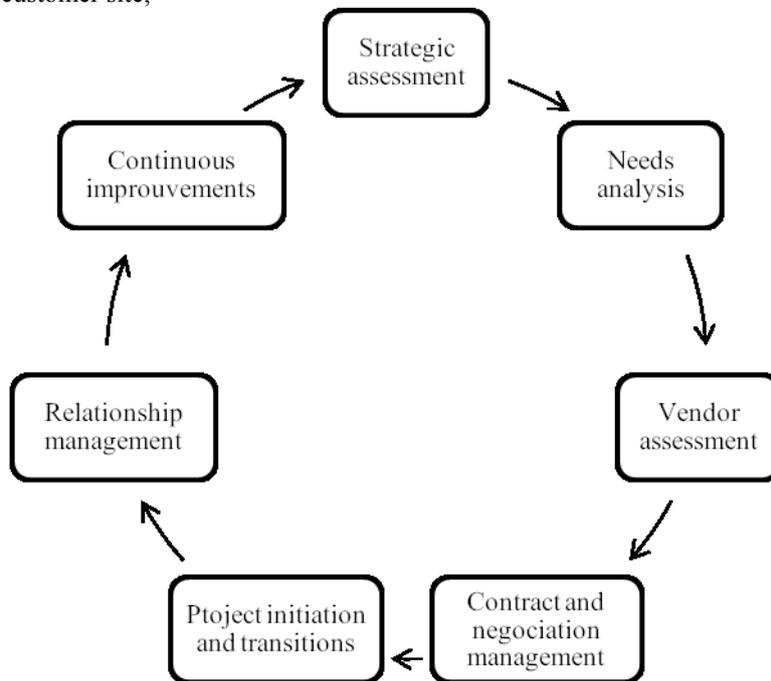


Fig. 2. The outsourcing life cycle (adapted from [8])

Q/P Management Group helps organizations to better identify the benefits, to set the targets in every contract and to implement the measures aimed at developing all outsourcing contracts. This group consists of six stages of the outsourcing management process [9] as presented in the following:

1. Identifying the outsourcing options
2. Setting the action lines
3. Assessing performance values

4. Assessing the current situation
5. Identifying the targets to be achieved
6. Validating the results

Based on the previous ranking, we can outline a graphic of the outsourcing management process. On the basis of the classification before we can achieve a graph of the outsourcing management process, shown in Figure 3.

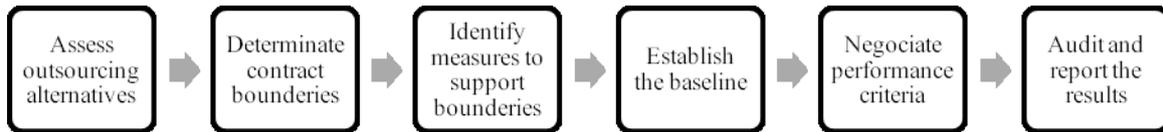


Fig. 3. Stages of outsourcing management (adopted after [9])

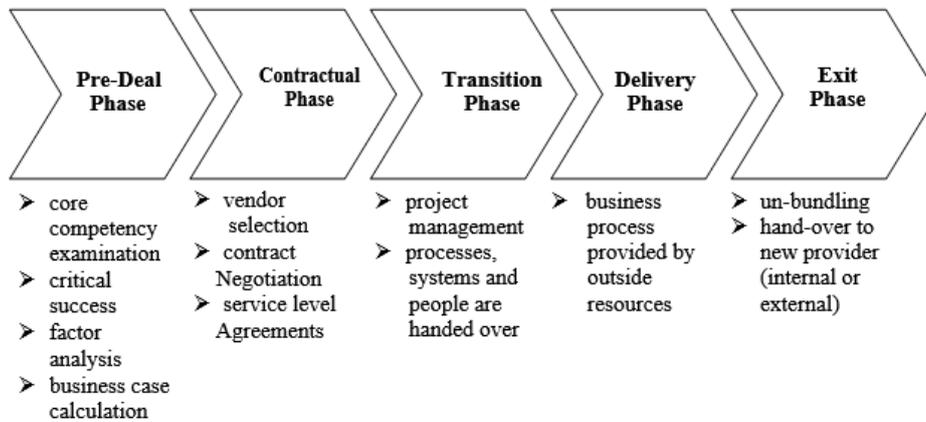


Fig. 4. Phases of Outsourcing Engagement (the vision related to the methodology adopted)

Researchers and professors from Institut für Wirtschaftsinformatik Johann Wolfgang Goethe, have identified five stages of outsourcing [6, 7], that are shown in Figure 4:

The study conducted by The Outsourcing Institute, sustain that a successful outsourcing process must take into consideration the following factors:

1. Understanding company's aims and objectives;
2. A strategic vision and a strategic plan;
3. Selecting suitable supplier;
4. A continuous management of the relationships;
5. A properly structured contract;

6. Open communication between the partners;
7. Manager's support for and involvement;
8. Special attention paid to aspects of staff;
9. It must be justified in the short-term financial;
10. The use of external expertise.

The seven steps suggest by Maurice F. Greaver II, for a successful outsourcing process are presented in Figure 5 [4].

Studying the outsourcing problem in several areas of activity, my opinion is that an outsourcing strategy may be epitomized in only four main stages, as seen in Figure 6.

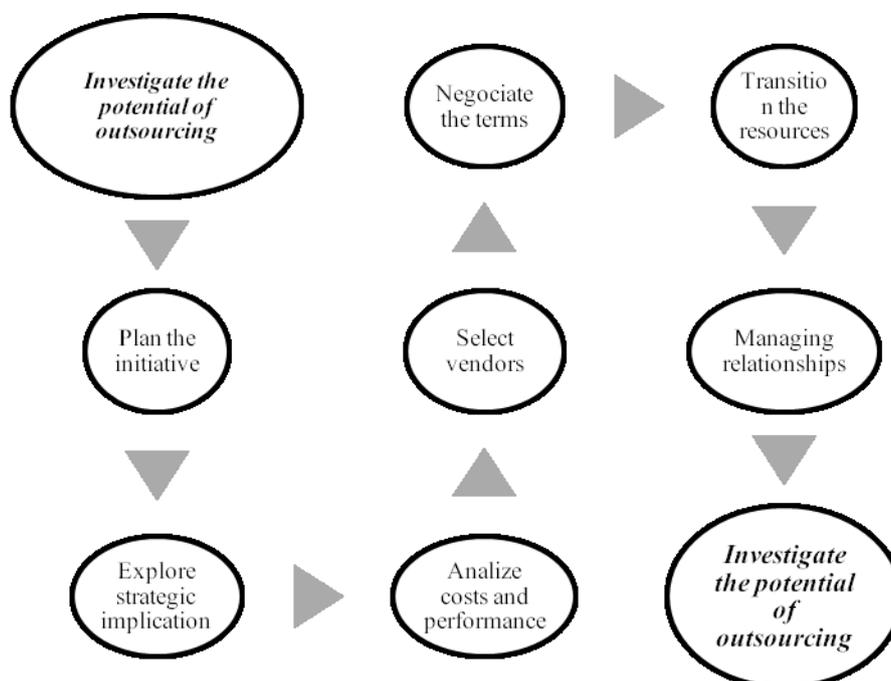


Fig. 5. Seven Steps to Successful Outsourcing (adapted from [4])

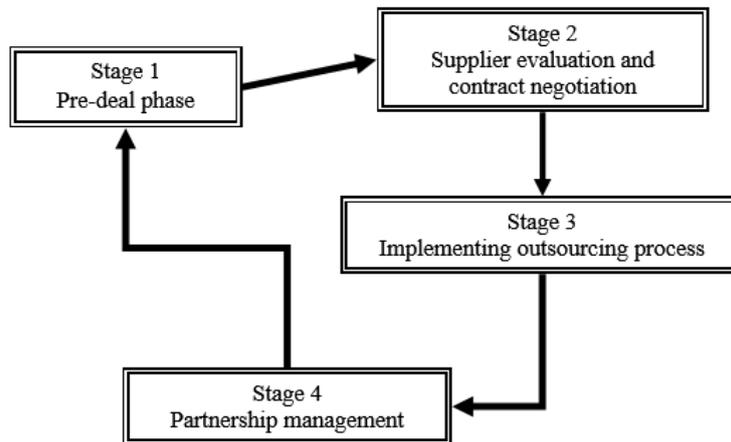


Fig. 6. Main Stages for an outsourcing strategy

IV. CONCLUSION

The outsourcing process allows companies quickly increase or to reduce their level of production, on the creation of new products or repositioning in the market, taking advantage of knowledge and capacities of the other companies.

Organizations that outsource some of their processes are seeking to realize benefits or address the following issues:

- The lowering of the overall cost of the service to the business. This will involve reducing the preoccupation, defining quality levels, re-pricing, re-negotiation, cost re-structuring;
- Resources are focused on developing the core business;
- Access to operational best practice that would be too difficult or time consuming to develop in-house;
- Companies increasingly use external knowledge service providers to supplement limited in-house capacity for product innovation;
- Through outsourcing the time to market is reduce (the acceleration of the production or product development through the additional capability brought by the supplier).

Although the above-mentioned arguments favor the view that outsourcing increases the profit of organizations, management needs to be careful with the implementation of it. Some tends to change their attitudes, personalities, and character on how the way they talk to other clients. Consequently, these challenges need to be considered before a company decides to engage in business process outsourcing.

REFERENCES

- [1] Chopra S.; Meindl P. "Supply Chain Management: Strategy, Planning, and Operation", Pearson Education, Inc., New Jersey (2007).
- [2] Click R.L.; Duening Th.N. "Business Process Outsourcing - The Competitive Advantage", Publisher John Wiley & Sons, Inc., Hoboken, New Jersey (2005).
- [3] Dominguez L. "The Manager's Step by Step Guide to Outsourcing", The McGraw-Hill Companies (2006).
- [4] Greaver M.F. "Strategic Outsourcing - A Structural Approach to Outsourcing Decisions and Initiative", Amacom Publishing House, New York (1999).
- [5] Halvey J.H.; Melby B.M. "Business Process Outsourcing Process. Strategies and Contracts", Second Edition, Publisher John Wiley & Sons, Inc., Hoboken, New Jersey (2007).
- [6] Heiko G.; Jochen F. "IT-Outsourcingvs. Business Process Outsourcing. Same Risky Business?", E-Finance Lab-University of Frankfurt (2008).
- [7] Power M.; Desousa K.; Bonifazi C., "The Outsourcing Handbook - How to Implement a Successful Outsourcing Process", Publisher Kogan Page, London (2006).
- [8] *** The Outsourcing Institute, "Survey of Current and Potential Outsourcing End-Users" (2002). <http://www.outsourcing.com>, <http://www.graphicmatter.com/docs/Outsourcing/Top10Reasons2Outsource.pdf>
- [9] *** <http://www.qpmg.com/outsrc.htm>

Commodities in Current Macroeconomic Outlook. A Possible Hedge against Inflation

Claudiu COVRIG⁸

Abstract – The recent global economic recession pushed investment funds and other players in the investment world closer to tangible assets, luring them back to commodities and especially to metals and agricultural markets. As the present macro environment supports commodities investing – especially investments in agriculture, thanks to very low interest rates, weaker currencies, a commodity boom, and as a hedge against global inflation - the level of funds invested in commodities increased by over 220% in the 2006-2011 period when compared to the previous five years' time (2000-2005). Meanwhile, estimates of an increasing global population, rather extreme weather patterns observed in recent years, decreasing crop yields and the extraordinary growth in global ethanol and biodiesel markets, focused the attention on cereals, sugar cane, rapeseed and soy, as concerns of a possible very tight supply situation might happen any time.

Keywords: commodities, markets, economic crisis, macroeconomics, investments, biofuels

I. THE MACROECONOMIC ENVIRONMENT

The United States financial crisis started in 2008 spread to the real economy and led to the most serious recession since the Second World War, as it got over the U.S. borders and it bumped into the largest world economies, ending in a global economic crisis. In the U.S., signs of economic slowdown started to appear earlier (in 2006-2007) when the decline in the housing market spilled over into the labour market but it became noticeable in late 2008, when one of the largest investment banks in the world failed (Lehman Brothers), the stock markets plummeted and liquidity dried up.

If the peak unemployment rate in post-war recessions averaged 7.6%, the U.S. unemployment surged to 10.2% in October 2009 (the highest level seen since end of 1982 when it hit 10.8%, predicting the major recession from 1984) and it is still at high levels, reported in January 2013 at 7.8%. Excepting the second quarter of 2008, the U.S. economy was in recession from the beginning of 2008 up to the third quarter of 2009, lasting almost twice as long as the average post-World War II recession of 11 months.

As all economies are related at the global level and the financial markets work together, the U.S. crisis spread over, mainly to Europe, Asia and parts of Africa, creating a global anxiousness in the investment world. In Europe, countries like Spain, Greece, Ireland and Portugal were hit the most, recording in 2011 average unemployment rates of 21.6%, 17.7%, 14.4% and 12.7% respectively, while the Gross Domestic Product (GDP) growth dropped to 0.7% in Spain and Ireland, to -6.9% in Greece, and to -1.5% in Portugal. Among the young workers, the unemployment rate was even higher touching over 50% in Spain and Greece and over 22% in the euro zone. Asian countries were also hurt, especially those ones having their economy structure mainly based on exports, as their trade partners, mainly Europe and the U.S., witnessed sharply drops in imports as a consequence of lower sales in durable goods. This situation left the supplier nations (especially China) in a limbo being obliged to focus mainly on the domestic market and suffering drops in their GDP growth. In Africa, its largest economy - South Africa, saw unemployment rate going as high as 24.7%, the highest unemployment rate among the world's 50 biggest economies.

II. STEPS FOR IMPROVEMENT OR POSSIBLE DELUSIONS?

The substantial decline in the stock and housing markets together with the failure of some major financial institutions had definitely a serious impact over the world economies but above all, what made it a crisis was the freezing of credit markets in the fall of 2008, when no private lending was available at any price in several of the major credit markets. All businesses were impacted by this, as all need liquidity and financing to operate, therefore this recession branch out in every sector of economy causing losses and business failures due to significant decreases in real estate and durable goods sales.

Facing these problems, governments came in with bailout funds and stimulus packages especially in

⁸ Sucden Geneva, PhD research analyst, Commodities, Switzerland, e-mail: claudiucovrig@yahoo.com

the financial industry as it affects all sectors, while the rest of industries (especially housing and automobile) were less “saved” as there were no money for everyone. These measures stopped the hemorrhages for a while but the patient was still on the table in the operating room.

As always, time remained the most important remedy to be applied as neither the capitalist nor the socialist system or any other economic system that was conceived doesn't offer a solution or at least a possible answer for everything that happens in the society. Therefore, we can't go only up and crises are part of the game. But faced with a slow and uneven economic recovery, many countries are looking to cut the value of their currency in order to gain a competitive edge without worrying about long term consequences.

Nations engaged in currency devaluation are hoping to cheapen the price of their goods and thereby increase their exports creating a positive inflation. Among other measures to increase growth, central banks are keeping the interest rates very low facilitating lending and also sending the investors to commodities, to risk assets and to Treasury Inflation Protected Securities. In 2012 the global central banks cut interest rates some 75 times, while in the U.S., since the beginning of the crisis, there were three rounds of quantitative easing (QE) that managed to keep for the moment the U.S. economy afloat.³ But the U.S. was not the only one nation doing it, as a declining currency put an upward pressure on other currencies, therefore other central banks followed the same strategy: Bank of Japan, the European Central Bank (ECB), the Bank of England, Swiss National Bank and others.

These actions are very risky as an imminent currency war might soon occur. Therefore, if the current situation will still continue and stocks won't recover fast, then investments in safe commodities (such as gold or even agro-commodities) might skyrocket sending their prices up to the moon and creating general imbalance, as a large part of this new liquidity created will be absorbed by safer assets and food prices will be so high as many nations won't afford to pay the price sending them into poverty.

III. FOLLOWING THE WINNER: THE COMMODITY WORLD

As said before, this global economic recession pushed investment funds and other players in the investment world closer to the real values of society, closer to tangible assets, luring them back to commodities and especially to metals and agricultural markets. Indeed, today investment in commodities is back in fashion after many years when it played an obscure role, and was almost the black sheep of this community. Moreover, the present macro environment supports commodities investing – especially investments in agriculture thanks to very low interest rates, weaker currencies, a commodity

boom, and as a hedge against global inflation. Meanwhile the extraordinary growth in global ethanol and biodiesel markets has also focused attention on the feedstock these bio-fuels are obtained from: corn, wheat, sugar cane, soy, rapeseed and palm.

Estimates of an increasing global population that may reach 7.6 billion people by 2020 and 9.2 billion by 2050 together with a lower global agricultural production growth expected for the 2010-2020 period (+1.70% compared to 2.60% recorded in 2001-2010, according to the OECD) make agricultural commodities very attractive for investments. Moreover, rather extreme weather patterns observed in recent years together with the issues that humanity is expected to face in the next 40 years, such as decreasing crop yields and water conflicts (mainly in South & West Africa, India, South Brazil and East Argentina), a rise in sea-levels (mainly in the Mediterranean area and Persian Gulf) are contributing to global ideas of a possible very tight supply situation across the commodities' sector.

Best price performers

In the same time when stocks were plummeting everywhere around the world, commodities saw one of the best periods in their history with gold recording new daily all time highs skyrocketing up to \$1,900.3 an ounce in 2011, silver reaching an amazing \$48.7/ounce the same year and Brent crude oil jumping over the \$140/bbl mark in July 2008 (a new all time high on market speculations and supply concerns due to higher Asian demand). Agro commodities performed very well too, with wheat surging to new record levels on drought and fires in Russia that caused important losses and a very tight supply. In 2010, LIFFE wheat prices increased by almost 85%, rapeseed prices by +71%, CBOT corn added over 50% and soybean oil increased by 41%. The same year, biofuels performed well too: CBOT ethanol added 21% in the U.S., RME biodiesel increased by 42% while FAME 0 biodiesel surged by 36% on FOB Rotterdam. Therefore, the year 2010 can be considered (at least up to 2013) the commodity year of this century: from a statistical point of view, the level of funds invested in commodities increased by 229% in the 2006-2011 period (to almost 263 billion USD) when compared to 2000-2005 period.

The years that followed up to present time were also good years for the investment in different commodities, as bonds and stocks returned low levels of profit for the period. After a 2011 correction seen in wheat prices due to a good crop year and a more relaxed situation in the world balance, the year 2012 brought again weather problems both in East Europe and the United States where excessive drought affected especially corn, wheat and soy crops driving prices once again up to the roof. At the end of 2012, LIFFE wheat prices were some 35% higher, soybeans gained over 18% while corn finished just below the \$7/bu mark, after months spent close to \$8/bu. (see Table 1).

Table 1. 2012 Best commodities performers

<i>Rank</i>	<i>Commodity</i>	<i>Price evolution in 2012</i>	<i>Price evolution in 2011</i>	<i>Price evolution in 2010</i>
1	LIFFE Wheat NYSE (£/ton)	+34.81% (205.25/152.25)	-23.49% (152.25/199)	+84.6%
2	Soyabeans CBT (¢/60 lb bushel)	+18.38% (1418.75/1198.5)	-12.53% (1198.5/1370.25)	+32.8%
3	T1 ethanol FOB Rotterdam (\$/m3)	+16.88% (823.102/704.25)	+3.19% (695.5/674)	+0.75%
4	T2 ethanol FOB Rotterdam (€/m3)	+13.33% (634.553/559.91)	-3.71% (559.913/581.464)	+7.08%
5	LIFFE Coffe NYSE (\$/ton)	+11.16% (1963/1766)	-15.18% (1766/2082)	+57.6%
6	Platinum NYMEX (\$/oz)	+10.02% (1545.7/1404.9)	-21.36% (1404.9/1786.4)	+16.69%
7	Silver COMEX (¢/oz)	+8.26% (3019.8/2789.3)	-10.34% (2789.3/3111.1)	+77.21%
8	CBT Corn (¢/56 lb bushel)	+8% (698.25/646.5)	+4.19% (646.5/620.5)	+50.3%
9	Gold COMEX (\$/oz)	+6.96% (1675.8/1566.8)	+10.11% (1566.8/1422.9)	+27.1%
10	NY RBOB gasoline NYMEX (\$/US gal)	+5.82% (2.812/2.6574)	+9.48% (2.6574/2.4273)	+16.57%
11	Heating Oil NYMEX (¢/US gal)	+4.49% (3.0451/2.9142)	+14.97% (2.935/2.5528)	+16.12%
12	LIFFE Cocoa NYSE (£/ton)	+3.99% (1435/1380)	-31.58% (1380/2017)	-9.23%
13	IPE Brent Crude Oil (\$/bbl)	+3.46% (111.11/107.38)	+13.22% (107.38/94.84)	+18.26%
14	LIFFE Rapeseed NYSE (€/kg)	+3.17% (456.25/442.25)	-13.05% (438.25/504)	+71.17%
15	IPE Gas Oil (\$/ton)	+0.32% (927/924)	+16.56% (924/792.75)	+16.63%

Sources: CME Group, Financial Times, Bloomberg

Table 2. 2012 Worst commodities performers

<i>Rank</i>	<i>Commodity</i>	<i>Price evolution in 2012</i>	<i>Price evolution in 2011</i>	<i>Price evolution in 2010</i>
1	Coconut Oil (Philip)	-48.25% (815/1575)	-18.42% (1550/1900)	+229.27%
2	Orange juice NYCE (¢/lbs)	-31.33% (116.05/169)	-6.27% (169/180.3)	+34.07%
3	Crude Palm Oil – Malaysia	-22.12% (810/1040)	-20.76% (1040/1312.5)	+56.23%
4	Cotton NYBOT (¢/lbs)	-18.15% (75.14/91.8)	-35.44% (91.8/142.2)	+90.54%
5	Sugar 11 NYBOT (¢/lbs)	-16.27% (19.51/23.30)	-27.46% (23.30/32.12)	+16.29%
6	FAME 0 FOB Rdam NYMEX (\$/ton)	-12.98% (1072.84/1232.9)	-3.61% (1232.9/1279.05)	+36.17%
7	RME FOB Rdam NYMEX (\$/ton)	-11.71% (1234.53/1398.33)	-7.78% (1379.55/1496)	+41.76%
8	Rubber (KL RSS No 1)	-10.99% (919/1032.5)	-31.85% (1032.5/1515)	+54.78%
9	WTI Crude Oil NYMEX (\$/bbl)	-7.09% (91.82/98.83)	+7.95% (98.83/91.55)	+12.1%
10	Soyabean oil CBT (¢/lb)	-5.62% (49.16/52.09)	-8.76% (52.09/57.09)	+41.17%

Sources: CME Group, Financial Times, F.O. Licht, Bloomberg

Among other commodities, different types and qualities of ethanol performed very well last year in terms of price evolution and possible business revenues for investors. Among them, ethanol is the happiest case this year with T1 ethanol increasing by +16.9% 9, and T2 European domestic ethanol gaining around 13.3% (both on a FOB/CIF Rotterdam basis) due to higher feedstock prices and to an increasing European demand for blending ethanol volumes used by oil refiners to fulfil their national blending obligations on biofuels. On the biodiesel side, prices were not performing as well mainly due to a large biodiesel idled capacity in Europe and good level of volumes in the market, lower vegetable oil prices and to large import volumes at lower prices coming from abroad (mainly Argentina and Indonesia) - see tables 9,12 (see the synthesis in Table 2).

The biofuels example

A particular case to be described is the one of biofuels (ethanol and biodiesel) as their markets have rapidly developed especially in the past 8 to 10 years. Subsidies (especially in the U.S.), national compulsory blending mandates (especially in Europe but also in the Americas) and environmental policies, pushed up biofuels demand in their first years of development. They now represent an important market, covering globally about 4% of the total volume of fuel used in transport and they are a profitable business for many players. Moreover, due to the fact biofuels represent a worldwide spread business being blended directly into fossil fuels (such as gasoline and diesel), the business is profitable without needing governmental support (which is not the case for the other renewable energies).

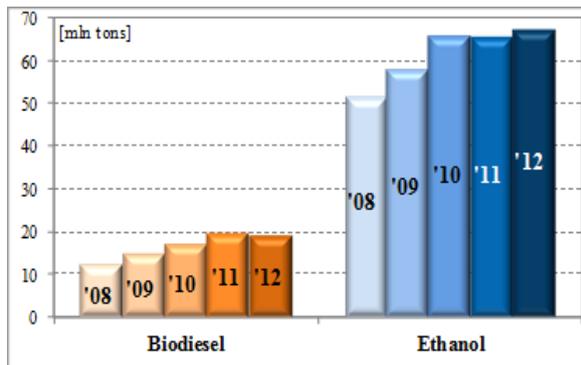


Fig. 1. World fuel ethanol and biodiesel demand
Source: (Covrig, 2011, 2012), F.O. Licht

In 2012, global fuel ethanol demand witnessed an 1.77-fold increase compared with 2007 figures and should reach record high levels by the end of 2013, expected to be around the mark of 70 million metric tons (mt). Biodiesel demand also exploded in the past five years, recording a 2.2-fold increase in the 2007-2012 period, and is supposed to reach around 19-20 million mt this year (almost 2.36 times more than in 2007) as up to 2011 biodiesel expanded at a higher pace than ethanol due to the fact that biodiesel market is younger than the ethanol one and demanded volumes might increase easier when the quantities are not at very high levels. (Covrig & Bosch-Gual, 2010)

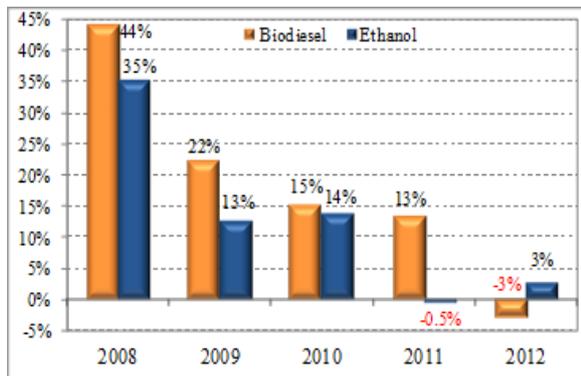


Fig. 2. Annual global increase in fuel ethanol & biodiesel demand
Source: (Covrig, 2010, 2011, 2012), F.O. Licht

Furthermore, according to the IEA, world biofuels production figures in 2016 are estimated to be 28% higher than in 2010, with fuel ethanol still maintaining the largest share in the biofuels market pie (about 3.8 times higher than for biodiesel) and is expected to displace about 5.3% of total gasoline demand. Biodiesel should follow with a 1.5% displacement of global diesel demand.

If in the paper market ethanol and biodiesel performed well during the economic crisis that started in the second half of 2008, producers margins were hurt in past two years and suffered as many other margins of durable produced goods. In the case of biofuels, the main reason for this drop in producers' profits was the increasing price of feedstock which brought the margins into negative.

Moreover, the biofuels producer margin is feedstock related (as price of corn, wheat, barley,

sugar cane, etc might vary independently and locally) and also differs by region, while different governmental subsidies for ethanol and biodiesel producers create a competitive advantage too.

In Europe, crushing margins (before profits from Distillers Dried Grains - DDGs and without considering other indirect costs involved) calculated for wheat-based ethanol producers were mainly in positive territory from 2008 to 2011, due to a downward trend in European feed wheat prices especially in 2011 (that had lost up to the end of 2011 about 23% since the beginning of the year) and good market values of ethanol – see figure 3.

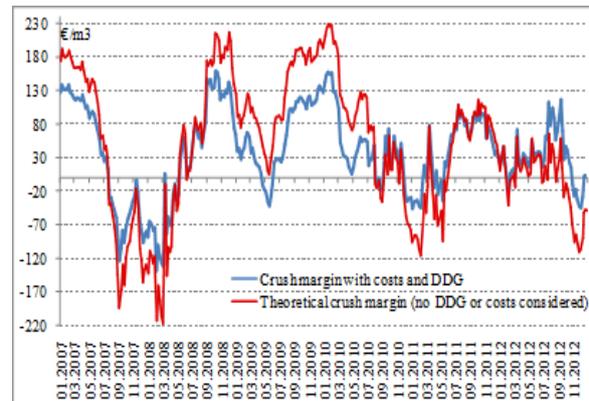


Fig. 3. Crush margin in Europe based on milling wheat (No.2) prices in France

Source: Prices from CME Group, margins calculated with own model

In 2012, as wheat prices started to increase due to weather concerns, the margin began to suffer and entered at the end of the year into negative territory. The positive margin varied therefore between a minimum of €0.28/mt recorded on February 21st to a maximum of €65.6/mt on July 24th encouraging ethanol production, while the negative margin in 2012 varied from a maximum of -€4.8/mt on July the 3rd to a minimum of -€110/mt on November 27th. Anyhow, the real situation of an ethanol producer might not be so pessimistic as described before due to revenues coming from by-products such as DDGs which are added to the profit margin (even if DDGs is still a niche market in Europe and not as liquid as the one in the U.S.). Thus, for the worst considered period of 2012, with the lowest point recorded on November 27th, the real margin of an European wheat-based ethanol producer was as bad as -€43.1/mt whereas the best positive margin recorded on July 24th was as much as €112.1/mt of wheat.

In the U.S., after relative positive values of the crush margins for corn-based ethanol producers recorded in 2011, the recent rally in corn prices kept the theoretical crush margin (without DDGs and indirect costs considered) somewhere around the negative edge of profitability in 2012. If one adds the contribution of DDGs and other capital and production costs, the margin was at the edge of profitability in the first half of 2012, while starting with September it entered negative territory up to the

end of the year. This situation made many ethanol plants to idle their production hoping for better margins in 2013.

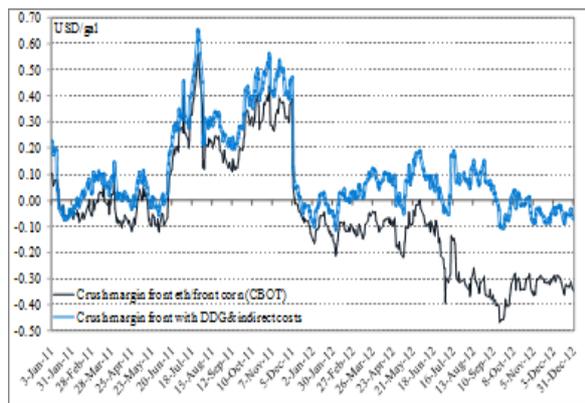


Fig. 4. Crush margins for US corn based ethanol producers (front corn future contract)

Source: Prices from CME Group, margins calculated with own model

V. CONCLUSION

Due to a dramatic rise in agricultural and energy price volatility based on different factors, such as rising demand (especially in emerging markets), expansive monetary policy, markets liberalisation, deregulation of financial service sector in some countries, easier access to electronic market place, multi-fold expansion of position limits for food and fuel, the profitable market player in the commodity business will be the one able to better manage this volatility.

As proven in the past years, agricultural commodities together with metals and energy performed well both on the future markets and on the physical ones but also as businesses in themselves, offering especially in the first years of financial and economic crisis good margins for both producers and investors. However, even if commodity futures performed relatively well, in past two years, many producers that transformed these commodities into different goods recorded weak margins due to higher feedstock and raw material prices, high price volatility, and to the global economic slowdown that came with a lower demand and limited access to credits.

Therefore, if present global quantitative easing measures won't succeed in their first stage of implementation to create jobs and to reach the awaited economic growth, at least they will keep interest rates low stimulating borrowing and eventually some business development, while the investors will firstly react in taking out the money from bonds and place them into equities which are expected to generate some good incomes. At least, something is going to move the markets... but the question is: For how long? And how much of this movement will help producers to regain their profits? As said before in the article, all measures implemented take time to be seen into the real economy. Anyhow, one thing is certain: if market participants recently ignored the role the commodities

play in the investment world, for sure they have changed their thoughts, strategy and approach from now on.

REFERENCES

- [1] Covrig, C. (2012). Assessment of ethanol and feedstock markets, Presentation to F.O. Lichts World Ethanol and Biofuels Conference, Munich, Germany, 5-8 November 2012, F.O. Licht
- [2] Covrig, C. (2011). Eastern Europe on the way up in biodiesel and ethanol?, *Biofuels, Bioproducts and Biorefining*, Vol. 5, Issue 3, pp. 233-237, May/June 2011, Society of Chemical Industry and John Wiley & Sons, Ltd
- [3] Covrig, C. & Bosch-Gual, L. (2010). Assessing European biodiesel markets and capacities, *Biofuels, Bioproducts and Biorefining*, Vol. 4, Issue 6, pp. 590-593, Nov/Dec 2010, Society of Chemical Industry and John Wiley & Sons, Ltd
- [4] Covrig C. (2010). The Americas' role in world biodiesel markets, *Biofuels International*, Vol. 4, Issue 4, pp. 36-37, May 2010, Horseshoe Media Ltd, UK
- [5] *** (1) <http://www.bls.gov/news.release/empst.nr0.htm> - U.S. Department of Labor, Bureau of Labor Statistics, Accessed on: 2013-01-18
- [6] *** (2) <http://www.nber.org/cycles.html> - The National Bureau of Economic Research (NBER), Working papers & Publications, Accessed on: 2013-01-25
- [7] *** (3) <http://www.bea.gov/> - Bureau of Economic Analysis (BEA), Accessed on: 2013-01-25
- [8] *** (4) <http://www.census.gov/#> - U.S. Department of Commerce, United States Census Bureau, Accessed on: 2013-01-25
- [9] *** (5) <http://www.ilo.org> - International Labour Organization (ILO), Accessed on: 2013-01-18
- [10] Accessed on: 2013-01-18
- [11] *** (6) <https://www.cia.gov/library/publications/the-world-factbook/> - Central Intelligence Agency (CIA), The World Factbook, Accessed on: 2013-01-18
- [12] *** (7) <http://www.imf.org/external/data.htm> - International Monetary Fund, Data and Statistics, Accessed on: 2013-01-25
- [13] *** (8) <http://www.oecd.org/statistics/> - OECD, Accessed on: 2012-12-20
- [14] *** (9) <http://www.cmegroup.com> - CME Group, Accessed on: 2013-01-15
- [15] *** (10) <http://markets.ft.com/research/Markets/Data-Archive?cat=CO> - FTSE International Ltd - FT Commodities and Agriculture, Accessed on: 2013-01-25
- [16] *** (11) <http://www.bloomberg.com> - Bloomberg & Bloomberg anywhere, Accessed on: 2013-01-26
- [17] Accessed on: 2013-01-26
- [18] *** (12) <http://www.fo-licht.com> - F.O.Licht's World Ethanol & Biofuels report, Accessed on: 2013-01-18
- [19] Accessed on: 2013-01-18
- [20] *** (13) The Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC
- [21] *** (14) <http://www.epa.gov/otaq/fuels/renewablefuels/index.htm> - U.S. Environmental Protection Agency, Renewable Fuel Standard Obligations, Accessed on: 2013-01-25
- [22] *** (15) <http://www.iea.org/publications/> - International Energy Agency (IEA), Accessed on: 2013-01-26.

Considerations on Securitization of Bank Assets

Moise DOMIL⁹, Adriana PUȘCAȘ¹⁰

Abstract - In this paper we aim to highlight the importance of understanding securitization of banking assets. The economic and financial crisis demonstrated the importance of regulation in the banking sector, regulations which can lead to a better management of risks, balance between loans and deposits and many more. The securitization of banking assets represents a financial innovation which has a long history in the capital markets.

Keywords: assets, securitization, regulation, liquidity, cash flow

I. INTRODUCTION

Securing assets involves changing the traditional balance sheet assets traded in the market, such as a loan, in marketable securities and move them off balance. When the assets of a bank are secured, the different functions of traditional bank lending are separated [1, 2, 5].

We could define securitization as the conversion of receivables and cash flow generated from a portfolio of financial assets such as mortgage loans, auto loans, credit card receivables and others into the marketable securities [3].

“The crisis or so call Panic of 2007-2008 was a run on the sale and repurchase market (the “repo” market), which is a very large, short-term market that provides financing for a wide range of securitization activities and financial institutions” [4].

II. SECURITIZATION OF BANKING ASSETS

Disconnecting the involved functions in securitization significantly alter the traditional role of intermediary banks, there are some reasons of attractiveness for the banks of securing assets. In the case of a bank, assets consist of all its placements in loans in securities, bonds, interbank market, capital market, stock market etc., plus buildings, land,

equipment and other assets (participations / shares owned in other companies) [6, 7].

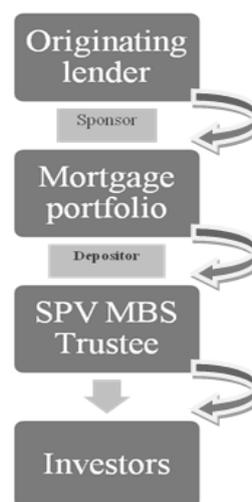


Fig. 1. Assets securitization model (adapted from www.fdic.gov/regulations/examinations/supervisory/insights/sisum08/article01)

Security can improve credit risk management, because if a bank finds that its loans are pre concentrated in an area, it can secure some of them to reduce exposure [6].

Securing can influence the bank cost of funds, this depending on whether any benefits of securing an asset class is adjusted by increasing funding costs higher due to lower quality loans that remain in balance [8].

The securitization of banking assets represents a financial innovation which has a long history in the capital markets. This process implicates the insurance of securities which derive cash flow from the underlying assets [8, 9].

⁹ BRD Goupe Societe Generale

¹⁰ West University Vasile Goldis of Arad, Revolutiei Bdl. 94, Arad, Romania, e-mail: adriana.puscas@yahoo.com

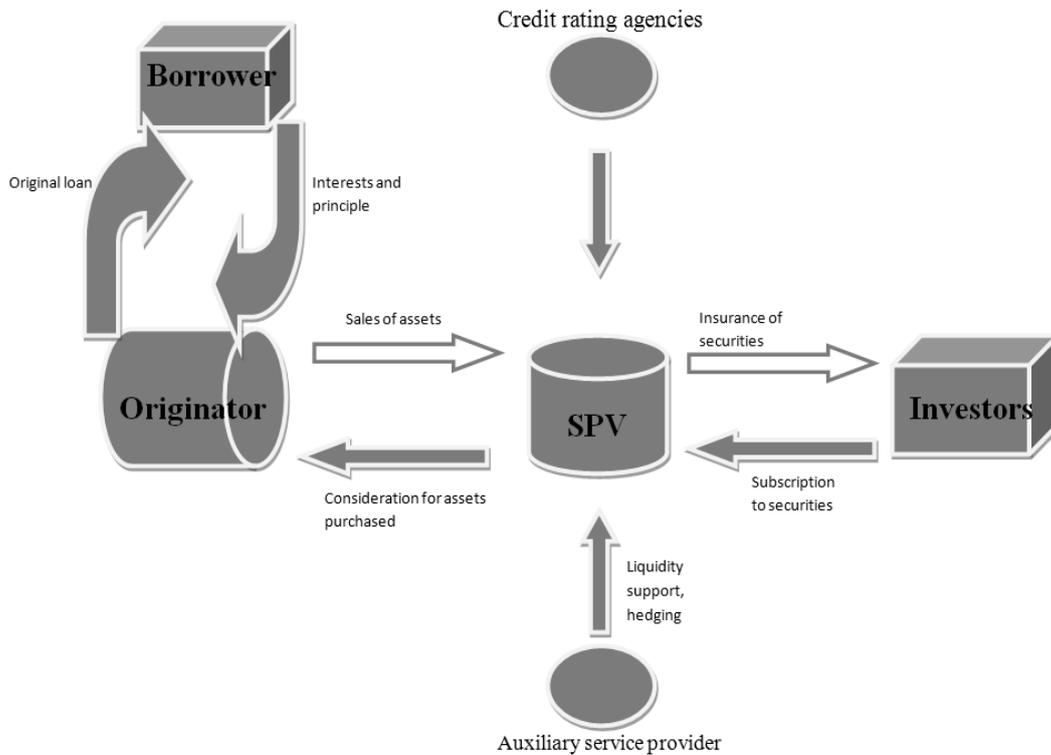


Fig. 2. Banking Asset securitization structure
(adapted from <http://www.imf.org/external/pubs/ft/fandd/2001/03/ketkar.htm>)

III. BASEL 3 IMPACTS ON ASSET SECURITIZATION

The global voluntary regulatory standard, Basel 3 continues on from Basel 2 which was mainly focused on the level of capital. When lending money, banks engage in activities wearing some level of risks. For this Basel 2 supposes that some risks come with lending and part of the capital must be set aside to cover this risks. The risk is not equal to all of the bank loans and for this reason risks are weighted in order to arrive at the total amount of risk weighted assets [6, 7, 8, 9].

Basel 2 recommends banks to set aside 2.5 per cent of the risk weighted assets. Basel 3 builds up from Basel 2 and imposes not 2.5 per cent but instead 7 per cent or even more, depending on the nature of the activity and the type of bank which lead to a considerable increase of the required capital for banks.

The second element Basel 3 adds relates to the size of the balance sheet because in the past years we have seen balance sheets of banks increasing significantly [9].

Basel 3 insists and recommends banks to take initiative to limit this process and even to take initiative to reduce the balance sheet size. This process can be done according to Basel by putting a limit on the size of the activity a bank can develop in comparison to its own capital and for this to occur a leverage ratio has been developed.

The third element added by Basel 3 and probably the most important one is liquidity.

In the context in which banking assets in Eastern Europe are still overrated liquidity is a most important aspect for a financial institution or in our case a bank. A bank receives deposits and grants loans and every day a bank disposes of a certain level of cash through its activity of collecting deposits and by providing cash to clients while granting loans. Due to the recession process we are still facing, its likely that the bank will not be in equilibrium at the end of the day. If it has more deposits than loans it will deposit some of them in another bank and if it granted more loans that it received deposits it will go or a loan with another bank by the inter banking market [8, 9].

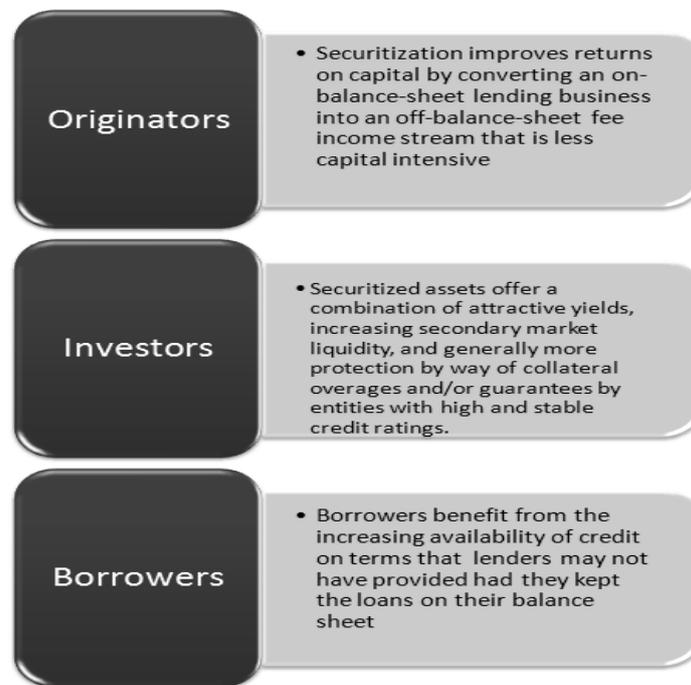


Fig. 3. Benefits of asset securitization

Asset securitization can improve risk management by controlling the in and outgoing cash flow of the bank. This cash flow is typical to each bank (for example savings banks are specialized in the collecting of deposits meanwhile a merchant bank is specialized in lending activities).

The success in the banking industry is the equilibrium between its loans and deposits and the securitization of assets is an important insurance of this equilibrium. To ensure such an equilibrium exists, Basel 3 has developed a specific regulation which consists of standardized stress test on all banks. The banks must have sufficient liquidity for a period of 30 days of stress conditions.

The improvement of risk management through securitizing assets improves also the management of the level of liquidity of the bank but this will put pressure on the net results of a bank and must be done keeping in mind the required increase in the capital for banks.

IV. CONCLUSIONS

Asset securitization represents an important aspect to a commercial bank because of the profitability challenge through balancing loans and deposits. To manage this equilibrium cross selling is an important aspect to a bank which will lead eventually to operational intimacy which will help banks to retain the required liquidity for the stress test. The importance of securitization of assets in the banking sector is outlined also by the further deterioration in asset quality in Eastern Europe without a consolidation of capital required by Basel 3 standard. In the last years the quality of assets is on a negative trend in Central and Eastern Europe. Slowing down economic growth, worsening asset

quality and potential funding problems may affect the stability of the financial sector.

REFERENCES

- [15] Coman F. “*Activitatea bancară, profit și performanță*”, Editura Lumina Lex, București, 2000.
- [16] Dedu V.; Enciu A. “*Contabilitate Bancară*”, editia a – II-a, Editura Economică, București, 2009.
- [17] Diaconescu M. “*Institutiile de credit, sisteme de plăți, riscuri*”, Editura Economică, București, 1999; 1147.
- [18] Gorton, G.; Metrick A. “Securitized banking and the run on repo”. *Journal of Financial Economics* 104.3 (2012): 425-451.
- [19] Hategan C.; Pavel C. “*Contabilitatea instituțiilor de credit*”, conform Directivelor Europene Editura Brumar, Timisoara, 2011
- [20] Pavel C.; Moraru M. “*Contabilitatea instituțiilor de credit*”, Manual pentru învățământ la distanță, Editura Universității de Vest, Timisoara, 2007
- [21] Temes I.; Muresan N. “*Contabilitatea societăților bancare*”, Editura Napoca Star, Cluj-Napoca, 1998
- [22] Zaharciuc E. “*Contabilitatea societăților bancare*”, Editura Teora, București, 2000
- [23] IFAC - *Standardele Internaționale de Raportare Financiară*, Editura CECCAR, București, 2011
- [24] ***, O.U.G. nr. 99 din 6.12.2006 privind institutiile de credit și adecvarea capitalului publicată în M.O. nr. 1027 din 27/12/2006 cu modificările și completările ulterioare
- [25] ***, Legea contabilității nr. 82/1991 republicată în anul 2005 cu modificările și completările ulterioare
- [26] ***, Ordinul Băncii Naționale a României nr. 27/2010 pentru aprobarea Reglementărilor contabile conforme cu Standardele Internaționale de Raportare Financiară, aplicabile instituțiilor de credit., Monitorul Oficial, Partea I 890 30.dec.2010
- [27] www.imf.org/external/pubs/ft/fandd/2001/03/ketkar.htm
- [28] www.fdic.gov/regulations/examinations/supervisory/insights/si-sum08/article01_transparency.html

A debate on Some Methods for Measuring the Intellectual Capital

Maria-Luminița GOGAN¹¹

Abstract – The interest on measuring the intellectual capital has caused the development of different methods of measuring it. This paper reviews the literature pertaining to the measuring of intellectual capital. Since intellectual capital is at the crux of sustainable competitive advantage, the researches field of intangibles assets is an exciting area for both: researchers and practitioners. Unfortunately the measurement of such intangible assets is difficult. A variety of methods has surfaced in an attempt to measure intellectual capital and this paper aims to analyze them and underline their strengths and weaknesses.

Keywords: intellectual capital, intangible assets, measurement, analysis.

I. INTRODUCTION

Measuring intellectual capital is fundamental and very important in order to compare different organizations, to estimate their real value or even to control their improvement year by year. In addition, to improve the way in which organizations manage its intellectual resources that produce value and make some benefits in consequences maximizing advantages for the organization. Nevertheless, to measure intellectual capital is necessary to specify exactly what the measurement methods are, which the best are and which are appropriate for the organization to choose for measure its assets in proper way. Properly using intellectual capital measurement methods can cause the creation of competitive advantage and in consequence create development of the whole organization at the present day.

II. THE CONCEPT OF INTELLECTUAL CAPITAL

Today the intellectual capital is a key factor in company's profitability. Intellectual capital (IC) consists of the stock and flow knowledge available to an organization. These can be regarded as intangible resources, which together with tangible resources comprise the market value of a business. There is no

generally accepted definition of intellectual capital. However, many have offered views that provide a general concept. One of the most succinct definitions of intellectual capital is given by Stewart as packaged useful knowledge [5]. He explains that this includes an organization's processes, technologies, patents, employees' skills, and information about customers, suppliers, and stakeholders. Various other definitions use concepts such as ability, skill, expertise, and other forms of knowledge that are useful in organizations.

A comprehensive definition of intellectual capital is offered by Brooking "*Intellectual capital is the term given to the combined intangible assets which enable the company to function*" [2]. Important underlying concepts in these definitions include the notion that intellectual capital is something that is knowledge based, captured in an identifiable form, and useful in organizations. These definitions and underlying concepts provide a useful foundation for understanding intellectual capital.

III. ANALYSIS METHODS OF MEASURING INTELLECTUAL CAPITAL

There are a number of reasons why organizations measure their intellectual capital such as: to help organizations formulate their strategy, assess strategy execution, assist in diversification and expansion decisions, and use these as a basis for compensation; and finally to communicate measures to external stakeholders.

The methods of measuring of intellectual capital are in fact a simplification of reality and an approximation of the exact value. However, these methods enable to identify a trend, which demonstrate whether the organization is results are better or worse than in the previous analysis. In this sense the system of measuring intellectual capital may be compared to the scales: it may never capture the exact value, but it is important to know whether the value identified is higher or lower than before [3].

¹¹ Politehnica University of Timisoara, Faculty of Management in Production and Transportation, 14 Remus str., 300191 Timisoara, Romania, e-mail: gogan_maria@yahoo.com

There are several groups of methods of measuring the intellectual capital, which can be used in order to evaluate these assets. Some of these methods were attempts made by different companies for their internal use rather than the development of a universal measuring method.

But they still exist and are basis to create new methods. According to the references overview, all methods can be divided into four main groups [1, 2, 4, 5]:

1. Direct Intellectual Capital Methods, DIC;
2. Market Capitalization Methods, MCM;
3. Return on Assets Methods, ROA;
4. Scorecard, SC;

To assist managers in deciding when they want to use one of the methods of measuring intellectual

capital above was made a comparative study of them, presented in Table 1.

As a result of comparisons can record that the choice of methods for measuring intellectual capital has a number of similarities and use the following steps:

1. Use one of the intellectual capital structures;
2. Establish assets that come into the measurement process to obtain the desired results;
3. Measuring intellectual capital is a period of time;
4. Reviewing and adjusting aim to avoid possible errors occurring during the performance measurement process.

Table 1. A synthesis of the measuring method of intellectual capital

Method	Characteristics	Strengths	Weaknesses
DIC	- estimate the economic value of intangible assets by identifying their components - have to be used in conjunction with the SC methods when standard indicators are defined	- allows separate evaluation of the different components of intellectual capital - provides a comprehensive picture of an organization's intellectual wealth - measurements are based on events - better representation of cause-effect relationship than in the case of financial methods	- this method is specific to a particular category of organizations, and the comparison is difficult - not appropriate for benchmarking or comparisons - the more components are analyzed and the more values are obtained, the harder it is to conduct the evaluation
MCM	- based on the market capitalization	- allow comparison of organizations in a particular field - provides a monetary value of intellectual capital - appropriate for benchmarking and comparisons.	- is not suitable for an overview of the development - a purely economic focus limits the perspective
ROA	- based on return on assets	- appropriate for benchmarking and comparisons - the method is suitable to compare different organizations in the same sector - is based on traditional accounting rules, and is therefore easily understood by accountants and finance professionals	- it is characterized by lack of information constituting intellectual capital - a purely economic focus limits the perspective
SC	- identify the components of the Intellectual Capital and generate indices and indicators that are reflected in graphs for scorecards	- provides a comprehensive examination of intangible assets and performance than methods based on monetary measurement - it is optimal for detecting and correcting errors - a wide scope of results that may help to rectify the company's current policies	- sensitive to the changes of the context - the amount of resulting information may be hard to analyze; it is difficult to obtain a single numeric result.

IV. INSTRUMENTS FOR MEASURING INTELLECTUAL CAPITAL

In these methods of measuring intellectual capital several models have been developed to help achieve further measurements are presented considering

several criteria: the type method which includes the model of intellectual capital, the formula intellectual capital calculation, the formula market value-calculation, characteristics, advantages and disadvantages.

There are currently various measurement models intellectual capital that seeks to consolidate financial

aspects of issues relating to intangible value. Most of these models consider intellectual capital as something that is not visible, but includes value the skills, organizational processes and relationships with customers [4].

The most popular measurement models as well as the most widely used or just the easiness of their applications of all non-financial measurement

methods are: Technology Broker, The Value Explorer, Tobin's Q Ration, Market to Book value, EVA, MVA, Balanced Scorecard, Skandia Navigator. The measurement models for the intellectual capital are presented in Table 2, considering the criteria listed previous.

Table 2. Analysis the instruments of measuring intellectual capital

<i>Model</i>	<i>Method</i>	<i>Intellectual capital</i>	<i>Market value</i>	<i>Advantages</i>	<i>Disadvantages</i>
Technology Broker (Annie Brooking)	DIC	IC=Human capital + Infrastructure assets + Intellectual property assets + Market assets	IC + Tangible assets	<ul style="list-style-type: none"> - the method evaluates intellectual capital of the company - importance of the intellectual property - related to the objectives of the company - integrated method 	<ul style="list-style-type: none"> - subjectivity in transforming quantitative results into qualitative - does not take into account synergies - does not have a time horizon - subjective classification of IC
The Value Explorer (Andriessen & Tiessen)	DIC	IC=Human capital + Structural capital+ Client capital	-	<ul style="list-style-type: none"> - monetary valuation of IC - projection of results into the future - works well for companies whose activity is based on patents 	<ul style="list-style-type: none"> - takes into account only essential competences - does not take into account synergies of the assets - quantitative value is not reliable and has redundant elements - it is not an integrated method
Tobin's Q Ration (James Tobin)	MCM	$q = \frac{\text{market value}}{\text{assets replacement value}}$	-	<ul style="list-style-type: none"> - offers a global view - not necessary to calculate the rate of return - useful for comparing enterprises 	<ul style="list-style-type: none"> - hard to obtain the necessary information (replacement costs) - depends on the market
Market to Book value (Stern Stewart and Luthy)	MCM	$q = \frac{\text{market value}}{\text{assets replacement value}}$	-	<ul style="list-style-type: none"> - relatively stable - useful for comparing enterprises - may be used even if the results are negative 	<ul style="list-style-type: none"> - does not provide the exact value of the intellectual capital: the represented items are not intangible assets - sensitive to accounting standards
EVA (Stern Stewart & Co.)	ROA	$\text{EVA} = (\text{ROI} - \text{WACC}) \times \text{Invested Capital}$	-	<ul style="list-style-type: none"> - enables one to analyze individual business units - enables one to see the real growth of the company - a good starting point - easy to use and appropriate for making comparisons 	<ul style="list-style-type: none"> - does not consider future performance - may lead to inconsistencies - business profitability has to be higher than the financing costs - higher accuracy demands a more complicated evaluation procedure - short-term focus

MVA (Stern Stewart & Co.)	ROA	MVA = Market value – invested capital	-	- allows to determine expectations of the results delivered by the strategies that may be adopted - incorporates expectations of the sector	- does not take into account the opportunity cost of the invested capital - does not take into account the dividend - cannot be applied at the level of business units - is not valid for companies not listed on the stock exchange
Balanced Scorecard (BSC) (Robert Kaplan y David Norton)	SC	IC = Perspective of the client + Internal perspective + Perspective of the employee + Financial perspective	IC	- analysis of horizontal strategic measures - evaluates the contribution of every link in the value chain and its overall performance - easy to understand, no prior experience needed - attention to the needs of the stakeholders - can be applied to companies and organizational areas - takes into account interrelations	- weak financial analysis - indicators have to be chosen carefully - subjective indicators - rigid model
Skandia Navigator (Lief Edvinsson)	SC	IC = Human Capital + Structural capital (= Client capital + Organizational capital)	Financial capital (past) + Intellectual Capital (present and future)	- incorporates financial elements - improved predictive ability - a broader view of the company - can be adapted to any company	- experienced personnel are needed for the application - it is difficult to apply the same methodology to different types of capital and their relations - does not analyze synergies between the areas

Number of models for measuring intellectual capital is increasing, showing their importance, and the difficulty of finding a metric for something so intangible. The new rule of the knowledge economy requires new solutions. Traditional approaches in accounting, finance, management cannot provide the most efficient and effective organization solutions, prompting them to turn them out intellectual capital measurement models to know the actual organization [1, 6].

V. CONCLUSION

Despite the importance given to these methods of measuring intellectual capital, even if it offers a high degree of transparency of the organization and operations of intellectual wealth, they may not provide a complete picture of the following reasons:

- What changes are to be measured assets are intangible in nature which also makes it hard to measure;

- Not reside in a single individual, but relations between individuals;
- There is separable temporal location;
- Little surprise measurable aspects of the production process,
- The connection between these forms of capital and economic growth is weak, almost nonexistent.

Important is that intellectual capital is no longer seen as a stock, a durable good but a sustainable process. The indication is that every organization should begin to measure the components of intellectual capital because they are a source of competitive advantage. Having control over these intangible assets allows control internal security on the one hand and effective external communication.

REFERENCES

- [29] Andriessen, D. Making Sense of Intellectual Capital – Designing a Method for the Valuation of Intangibles, Ed. Elsevier, Amsterdam (2004).
- [30] Brooking, A. Intellectual Capital: Core Asset for the Third Millennium Enterprise, International Thomson Business Press, New York (1996).
- [31] Heisenberg, W. Uncertainty Principles Associated to Non-degenerate Quadratic Forms. Société Mathématique de France (1959).
- [32] Roos, G.; Roos, J. Measuring your Company's Intellectual Performance. Long Range Planning, Special Issue on Intellectual Capital, Vol. 30, No.3, pp. 413-426 (1997).
- [33] Stewart Th. A. Intellectual Capital: The New Wealth of Organizations, Doubleday, New York (1997).
- [34] <http://www.sveiby.com/articles/IntangibleMethods.html>, and G. Roos, S. Pike, L. Fernstrom, Accessed on:2013-02-20

The Legislative Framework of Energy Networks in the European Union – Realizing the European Commission Energy Policies

Caius Tudor LUMINOSU¹²

Abstract – The paper aims to provide an oversight on the new European Union's energy policy: the establishment and functioning of Europe-wide energy transportation networks. A common European energy strategy and corresponding policy of the European Union has been established after the revision of the fundamental Treaties and the establishment of the Lisbon Treaty in 2009. The aim is to provide the delivery of sustainable, secure and competitive energy necessary for the functioning of the European Union. The paper argues that such steps are in accordance with the European Union's new competence, without exceeding it.

Keywords: TEN, energy policy, energy transportation, European Union legislation

I. INTRODUCTION

What will the future of providing energy for the European Union (EU) look like? This question dates in fact from the founding of the predecessor of the European Union, the European Community of Coal and Steel in 1957. Back then the founding states saw the need to address the issue, as it was the very cornerstone of the European construction, namely the common European economy. This economy needed energy to function and would prove ultimately a success, as it evolved into a fully integrated common market.

Now, with the legal consecration in 2009 with the Treaty of Lisbon of a European energy policy, the Union can finally stand up to the challenges of the present. The Commission of the EU has also observed that without coherent EU action in this field, the EU's objectives in other areas, including the Lisbon Strategy for growth and jobs and the Millennium Development Goals, will be difficult to achieve.

II. THE EUROPEAN ENERGY POLICY – AN OVERVIEW

The aim of the newly created European energy policy is threefold:

- Combating climate change,
- Limiting the EU's external vulnerability to imported hydrocarbons,
- Promoting growth and jobs, thereby providing secure and affordable energy to consumers.

In the Strategic Energy Review the European Commission proposes that the European energy policy should be linked with an EU objective in international negotiations of 30% reduction in greenhouse gas emissions by developed countries by 2020 compared to the year 1990. In addition, in 2050 global GHG emissions must be reduced by up to 50% compared to 1990 (implying reductions in industrialized countries of 60-80% by 2050) as well as an EU commitment to achieve, in any event, at least a 20% reduction of GHG by 2020 compared to the year 1990.

The Commission indicates three motives for which it sees the necessity of setting such aims:

- As CO₂ emissions from energy make up 80 % of EU greenhouse gas (GHG) emissions in the Union, reducing emissions means using less energy and using more clean, locally produced energy,
- Limiting the EU's growing exposure to increased volatility and prices for oil and gas, and
- Potentially bringing about a more competitive EU energy market, stimulating innovation technology and jobs.

When looking closer at the reasons behind this strategic objective, it can be observed that two of the main reasons are of economic nature, refer to securing the supply of fossil fuels as well as stimulating the European internal market. Only one of the reasons,

¹² Politehnica University of Timisoara, Faculty of Management in Production and Transportation, 14 Remus str., 300191 Timisoara, Romania, e-mail: caius.luminosu@upt.ro

albeit the first enumerated, concerns the protection of the environment.

To achieve such a strategic energy objective would mean, according to the projection of the Commission, to transform the EU into a highly energy efficient and low CO₂ energy economy, to accelerate the change to low carbon growth and, over a period of years, to gradually increase the amount of local, low emission energy that is produced and used. The main challenge is to achieve this in a way that will maximize the potential competitiveness gains for Europe, and will limit the potential costs.

There are already some measures implemented in areas such as renewable electricity, biofuels, energy efficiency – different Directives and Regulations too many to be named here – that have achieved important results but lack the coherence necessary to bring sustainability (environmental protection goal), security of supply and competitiveness (economic goals). All elements are part of the European energy of the policy and they must be taken together as a whole and must be addressed by many other different policy areas.

The first step for a coherent and integrated energy policy was for the member states to endorse a strategy and an Action Plan with the explicit aim of reducing global Greenhouse gas emissions by 2020 by 30% and making a significant contribution to reducing the EU's greenhouse gas emissions by 2020 by 20%. This step materialized essentially in 2009 with the creation of the Directive 2009/28/EC of the European Parliament and of the Council on the promotion of the use of energy from renewable sources.

III. THE TRANS-EUROPEAN ENERGY NETWORKS (TEN)

The plan, as laid out by the European Commission, calls for the creation of an “Internal Energy Market”, which is essential to meet all three of Europe's energy challenges:

- Competitiveness: a competitive market that will cut costs for consumers (both commercial and end-user) and stimulate energy efficiency and investment.

- Sustainability: a competitive market will allow for the effective application of the emissions trading mechanism. Also, it is intended that transmission system operators must have an interest in promoting connection by renewable, combined heat and power and micro generation, stimulating innovation and encouraging smaller companies and individuals to consider non-conventional supply.

- Security of supply: an effectively functioning and competitive Internal Energy Market can provide major advantages in terms of security of supply. The effective separation of networks from the competitive parts of the electricity and gas business results in real incentives for companies to invest in new infrastructure, inter-connection capacity and new

generation capacity, thereby avoiding black-outs and unnecessary price surges.

The internal energy market can be regarded as an extension of the existing internal market, created by the European Community for Coal and Steel and its successor, the European Community. The same legal rules would apply to the energy market, but also with room for necessary special legislation.

In terms of infrastructure, the Commission has set out five priorities through the so-called Priority Interconnection Plan:

- Identifying the most significant missing infrastructure up to 2013 and ensuring Europe-wide political support to fill the gaps.

- Appointing four European coordinators to pursue the four of the most important priority projects: the Power-Link between Germany, Poland and Lithuania; connections to offshore wind power in Northern Europe; electricity interconnections between France and Spain; and the Nabucco pipeline, bringing gas from the Caspian to central Europe.

- Agreeing a maximum of five years within which planning and approval procedures must be completed for projects that are defined as being "of European interest" under Trans-European Energy Guidelines.

- Examining the need to increase funding for the Energy Trans-European networks, particularly to facilitate the integration of renewable electricity into the grid.

- Establishing a new Community mechanism and structure for Transmission System Operators (TSOs) which should be responsible for coordinated network planning.

In addition, the need to increase the reliability of the EU's electricity system and prevent black-outs, common minimum and binding network security standards are necessary in the EU. The new Community mechanism and structure for Transmission System Operators should also be tasked with proposing common minimum security standards. These would become binding following approval by energy regulators.

It can be observed that the Commission is encouraging the integration of existing energy networks across the Union as well as the development of improvements and extensions of those networks mainly in order to provide for higher security of energy supply. The security of the energy supply of all types of energy is one of the cornerstones of the realization of the other main objectives of the European energy policy, namely competitiveness and sustainability – the economic and environmental protection components of the policy. A Decision fixing guidelines for the development of the TENs has been adopted by the European Parliament and of the Council in September 2006.

Of course the Commission calls for other, complementary, measures and actions to be taken for an effective implementation of an European energy policy – mainly effective regulation of the energy

market, including monitoring and reporting measures, transparency, improving energy efficiency in generation, transport and other areas of energy supply and consumption, solidarity between the member states regarding any measures affecting the energy sector and last, but not least steps towards an international energy policy of the Union, in the common interest of all member states.

IV. CONCLUSION

The Strategic Review of the Commission has set out a set of policies required to achieve the goals of sustainable, secure and competitive energy by the creation of an internal energy market. Such a market is essential for the EU, which has again realized the need of securing and managing a proper energy supply. A key element of the success of this market is the existence and proper functioning of Trans-European Energy Networks, as they are the main means by which the Union's energy policy will be materialized. By laying down guidelines for the development of TENs, the EU has shown its first commitment to secure the energy supply of all member states above the individual interests of the member states. It is expected that further and intensified activity of the EU in this sector will strengthen the resolve for a common, Union-led energy policy.

REFERENCES

- [1] Official Journal of the European Union, 2009, C83, p. 1;
- [2] European Commission, "An Energy Policy For Europe", COM(2007), 1;
- [3] European Commission "Limiting Climate Change to 2°C - Policy Options for the EU and the world for 2020 and beyond", COM(2007) 2;
- [4] European Commission, Communication from the Commission to the European Parliament and the Council: Priority interconnection plan - COM(2006), 846;
- [5] * * * Decision No. 1364/2006/EC of the European Parliament and of the Council laying down guidelines for trans-European energy networks, Official Journal of the European Union, 2006, L262, p. 1..

The Financial Crisis' Influence on the Insurance Industry Revenues

Cristina Mihaela NAGY¹³

Abstract – According to Sigma reports – „World insurance” the level of revenues for global gross written premiums registered in 2007-2011 a growth of over 13%, which is a good thing given the context of the global economy and the weight of the first three insurance markets, namely Western Europe, Japan and the newly industrialized economies of Asia and North America in 2007 had a weight of over 88%, and in 2011 this percentage was of over 83%.

Keywords: insurance, revenues for global gross written premiums

I. INTRODUCTION

The revenues derived by an insurance company are primarily in the form of insurance premiums, but also financial placements and rational use of the insurance fund to pay compensation benefits, in the purposes of paying only the amounts due. The revenue category includes the amounts or values received or receivable in own name from ordinary activities, as well as gains from any other sources.

The economic activity of insurance companies is achieved to obtain a profit as higher as possible, this being carried out through:

- Obtaining income from the sale of insurance products;
- Obtaining income from the financial investments;
- The rational use of the insurance fund in paying compensations for damages, meaning only the amounts that need to be paid.

Revenues are increases in economic flows as inflows of assets, increases in the value of assets or decreases of liabilities that result in an increase in equity (other than those resulting from contributions of shareholders) [4, 5].

The largest revenues of insurance companies are obtained from selling insurance policies. In most cases the premiums are collected at the beginning of the insurance period, meaning anticipated, in the amount and terms established in the insurance policy, and based on them the insurance company promises to

pay damages if the insured risks occur. Since the insurance premiums are collected in advance with the promise of payment of the compensation, the company constitutes a premium reserve in the event that it must repay a part of the premium.

The global insurance industry has made over the years premium income and the worldwide insurance development has evolved unequal.

II. SOME STATISTICAL DATA AND DEBATES ON REVENUES IN THE INSURANCE INDUSTRY

It is well known that the largest insurance market in the world was North America in terms of income from gross written premium, but since 2005 Western Europe has become the largest insurance market in the world, North America was second, and the third insurance market in the world was Japan and the newly industrialized economies of Asia.

Before the advent of the current economic crisis, which started in USA in 2008, we can see an increase in both total premium volume, as well as in each market, especially an increase of insurance premiums in countries with developed economies from Europe and the American continent (Figure 1).

From Figure 1 we can see that the revenues from global gross written premiums increased annually, except in 2009, which registered a decrease almost reaching the level achieved in 2007, so the growth registered in the whole period was over 13%, which is a good thing given the context of the global economy, where all domains registered declines in revenues.

In Figure 2 there it can be observed that in terms of revenues from gross written premiums, in 2007, Western Europe became the largest insurance market in the world with a share of 39.56%, followed by North America with a share of 32.75% and Japan and the newly industrialized economies of Asia with a share of 15.78%, the three regions have achieved together over 88% of the turnover of the global insurance industry.

¹³ Tibiscus University of Timisoara, Romania, Faculty of Economics, 4-6 Lascar Catargiu str., Timisoara, Romania, e-mail: cristinanagy2009@yahoo.com

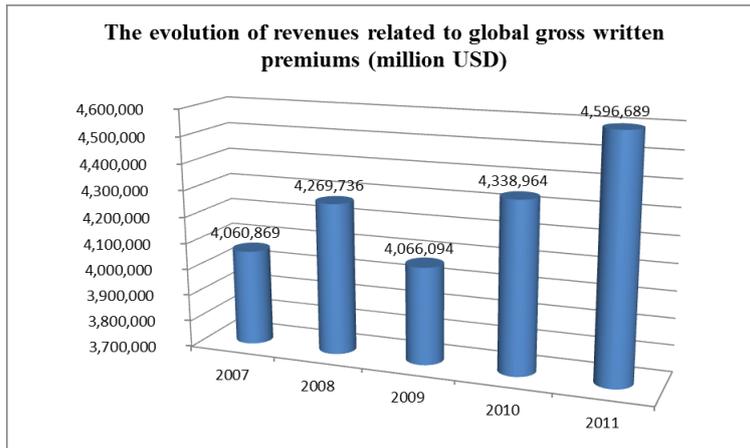


Fig.1. The evolution of revenues related to global gross written premiums (million USD) (the data source is [6])

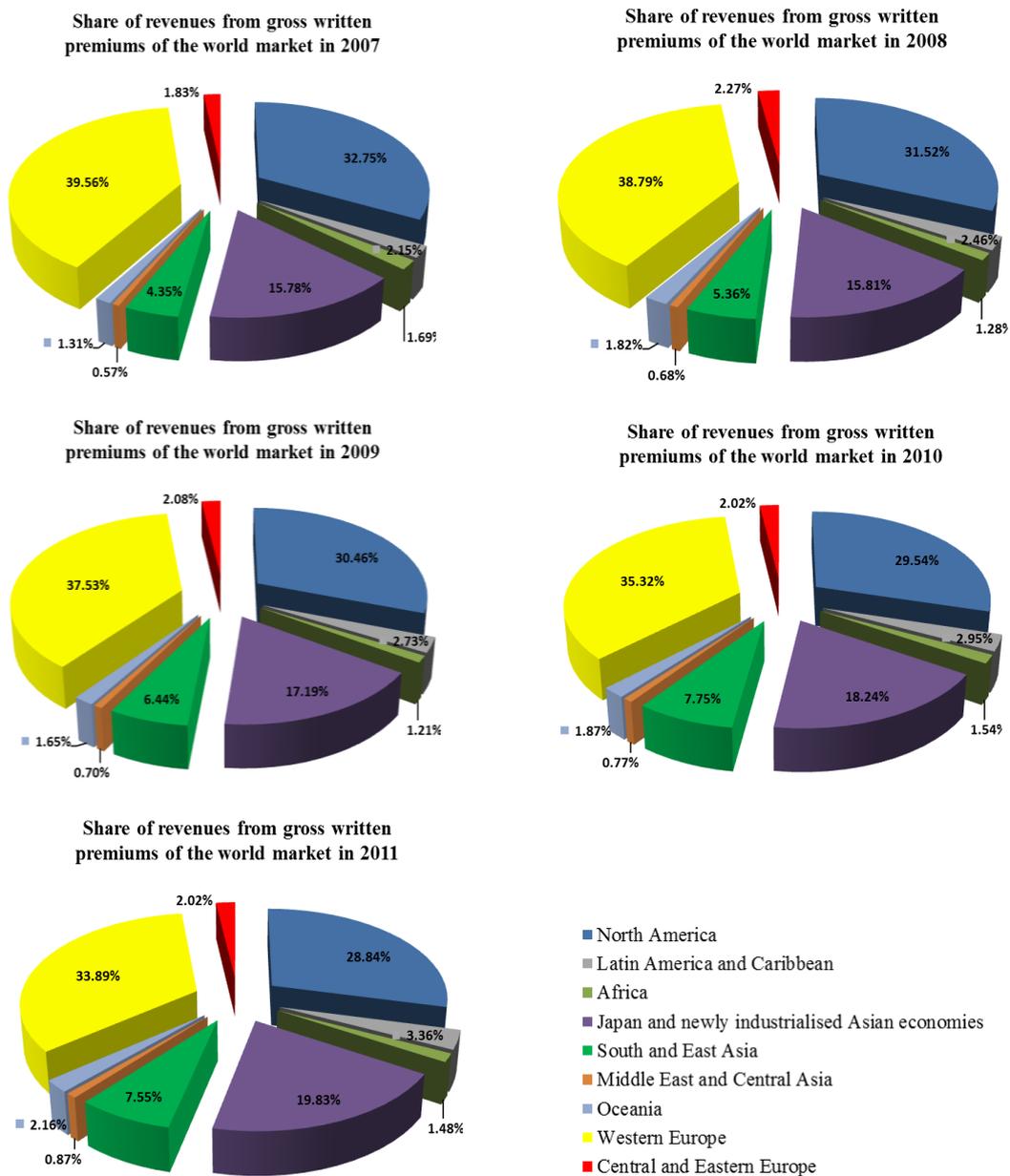


Fig. 2. Distribution of revenues from gross written premiums in 2007-2011 by geographic areas (the data source is [6])

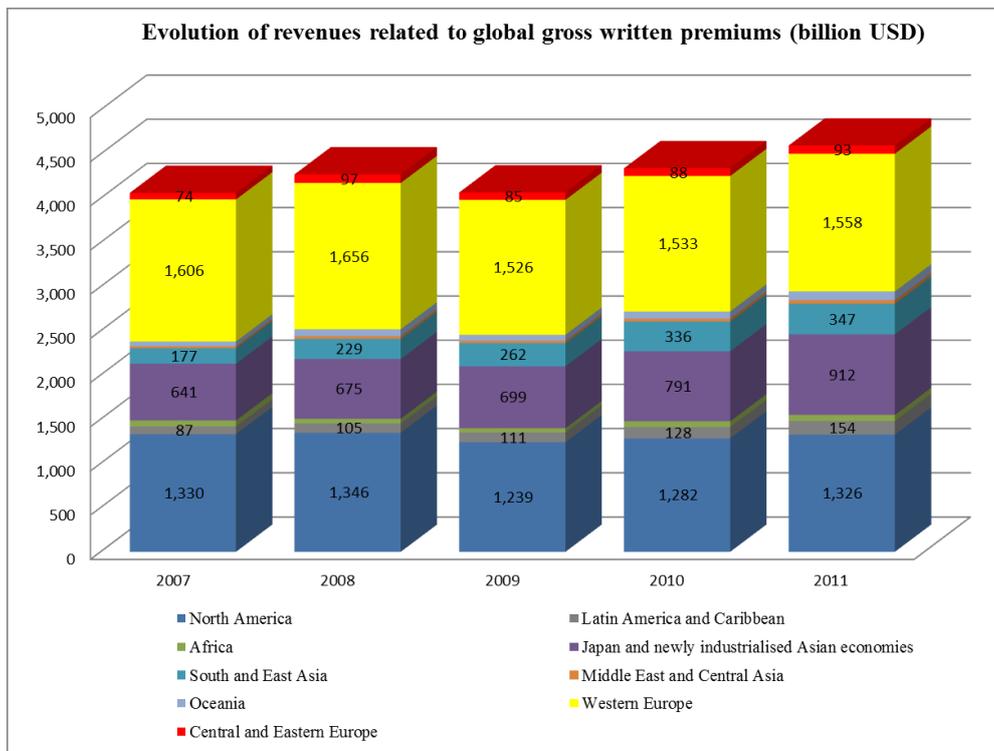


Fig. 3. Evolution of revenues related to global gross written premiums (billion USD) (the data source is [6])

In the period 2008-2011 we have the same top 3 global insurance market as in 2007, the three regions managing to achieve together during this period over 83% of the turnover of the global insurance industry.

It is also observed from Figure 2 that Japan and the newly industrialized economies of Asia have registered an increase from 15.78% (in 2007) share in total to 18.24% (in 2010) and 19.83% (in 2011), while Western Europe has decreased from 39.56% (in 2007) share in total to 33.89% (in 2011), this being due to the crisis that has affected even Western Europe.

In Figure 3 there can be seen that throughout the analyzed period the global insurance industry was able to grow, the strongest market today being the Western Europe which registered an increase only in 2008 of just 3% from \$ 1,606 billion in 2007 to \$ 1,656 billion in 2008, since 2009 this market registering a decrease of 8% compared to the previous year. From 2010 the insurance market recorded an annual increase of revenues for gross written premiums, but the increase was small, yet it did not reach the level achieved before the financial crisis.

The same situation occurred in North America where the volume of revenues from gross written premiums decreased by 0.3% across the entire analyzed period, from \$ 1,330 billion in 2007 to \$ 1,326 billion in 2011, this decrease was much greater in 2008 and 2009, but was recovered in 2010-2011.

Compared to Western Europe, in North America the volume of revenues from gross written premiums registered a smaller decrease mainly due to the fact that the insurance sector was highly developed even before the analyzed period.

From Figure 3 we can also observe that revenues related to gross written premiums have increased in

all regions during the period 2007-2011, the highest growth was recorded by South and East Asia, respectively 96%, from 176 billion dollars in 2007 to 347 billion dollars by 2011. An increase of over 86% was also recorded by Oceania, and the Middle East and Central Asia an increase by over 71%.

Central and Eastern Europe recorded an increase in the volume of revenues related to gross written premiums from 74 billion dollars in 2007 to 93 billion dollars by 2010, respectively of 25%.

III. CONCLUSIONS

From the performed analysis we noticed that the main markets which determine the development of global insurance are those with a highly developed economy, the main actors are: America, Japan and Western Europe, which focus most of their revenues from subscribed gross premiums. Throughout the analyzed period the global insurance industry has managed to grow, despite the unfavorable economic climate in the period 2007-2010.

In Romania, one of the factors that have had a significant influence on the sector was the psychological one, because fear and uncertainty regarding the financial safety of consumers have led to an increase of contract cancellations and repurchase agreements, as well as to the postponement of the intention to purchase life insurance policies [1, 3, 4].

In insurance, the Romanian market is one of the least developed compared to other countries in the European Union. The citizens' reluctance in insuring was observed even after housing insurance became mandatory. Although the fines are provided as a means of coercion, some mayors have announced that

they will not fine the owners who will not prepare the documents within the time limits prescribed by law [3, 4].

The economic crisis resulted in a decrease of the revenues of insurance companies, being influenced by a number of factors, but the crisis' impact was much lower than in other areas, this being also due to the strict supervision of this field.

Insurance income decreased primarily because of the negative evolution of the auto sales sector (for example in 2010 according to figures published by the Department for Driving Licenses and Vehicle Registration the number of new vehicles passenger cars registered in Romania decreased by 18.5% compared with the previous year.), restriction of some companies' activities, and the more difficult access to financing sources through loans/ leases, rising unemployment and decreased revenues of consumers of insurance products.

REFERENCES

- [1] Buscu, Ș. “*Primarii despre asigurarea obligatorie a locuinței: Nu vom aplica amenzi*”, articol disponibil la adresa <http://www.capital.ro/detalii-articole/stiri/primarii-despre-asigurarea-obligatorie-a-locuintei-nu-vom-aplica-amenzi-151051.html>
- [2] Dobrin M. “*Contabilitatea societăților de asigurări*”, Editura Fundației România de Mâine, București (2007)
- [3] Nagy C. M., Cotleț B., Cotleț D., Uher M. “The impact of the crisis on the financial performance (results) of Romanian insurance companies”, *Anale. Seria Științe Economice, Timișoara*, Volumul XVIII, Editura Mirton, p. 385-392 (2012).
- [4] Nagy C. M.; Vasilescu R. “The internet’s impact on the Romanian insurance industry”, *Anale. Seria Științe Economice, Timișoara*, Volumul XVIII, Editura Mirton, p. 412-416 (2012).
- [5] Van Greuning H.; Koen M. “*Standardele internaționale de contabilitate*”, Editura Irecson, București, 2003
- [6] *** Reports “World Insurance” in 2007-2011, published by Swiss Re (Swiss Reinsurance Company, Swiss Reinsurance Company Ltd).

Debate on the Cultural Style Indicators. The Case of Cross-Cultural Teams

Anca-Diana POPESCU¹⁴

Abstract – This article aims to analyze the Cultural Style Indicator using Peterson Cultural Style Indicator™. Starting from the conceptual framework definition of the organizational culture, the paper will present then a possible research approach for investigating organizational culture dimensions using Peterson Cultural Style Indicator™ (the cultural intelligence and the cross-cultural differences are defined by considering dimensions as: management, strategy, planning, personnel communication and reasoning). In addition, this article presents the research results done in the university. The pilot research results achieved, can offer the possibility of a comparison between the data obtained and the data already collected by Dr. Peterson. Keywords: Cross-cultural members, Peterson Cultural Style Indicator™, cultural intelligence.

I. INTRODUCTION

Over the past decades, engineering processes have evolved dramatically. These changes have led companies to review their working methods and realize an organizational culture definition, to be able to move from one culture to common conservative culture knowledge (and to define them as a learning organization). In the current economic world, time differences existing and the languages seem to no longer a prohibition on the team creation teams.

Taking into account the specific needs of communication and information, sharing knowledge between employees from different services, it is necessary to incite participants to behave collaboration, regardless their level in the company hierarchy. Cultural differences, language or location having no essential.

In the current economic world, time differences existing, the languages multitude, seem no longer a prohibition on the teams creation. In multinational companies tend to form teams to work together. Cultural differences, language or location having no essential. Culture is a learned meanings system in a given society, transmitted and shared that facilitates the survival community ability and the adaptation of one community to the external environment.

From the point of view of cross-cultural psychology, we are particularly interested in subjective culture, the individual inside. Subjective culture components are referring to cultural traditions, subject cultural beliefs, cultural values, norms and cultural rules. In the work context space, we deal with the organization cultural identity, company culture. Heintz said about organizational culture that supports its proper functioning and that, this concept emerged in the twentieth century [7]. Since then, labor sociology focuses on the enterprise culture and identity at work.

Enterprise cultural characteristics may be [21]:

- Activity (mission design and organization reason for);
- Person (design rights and duties organization towards the person and the person rights and liabilities towards the organization) [15];
- Environment (design boundary relations and interaction between organization and environment).

We cannot however limit to observing the organization internal framework to explain its function and dysfunctions. It is also important to understand what place the organization works in life of its employees compared to other works submitted by them.

Brooks defines the cultural intelligence and explains the cross-cultural differences having the purpose to make you define your own cultural style in six important areas: management, strategy, planning, personnel communication and reasoning (cite by [1]).

This article presents the results obtained from a research made in our university, using The Peterson Cultural Style Indicator™ [15]. Pilot research results achieved, can offer us the possibility of a comparison between the data obtained in our Institution and the data already collected by Peterson.

II. CONCEPTS DEFINITION

The concept of “organizational culture” nowadays is very present in management, acquiring

¹⁴ Politehnica University of Timisoara, Faculty of Management in Production and Transportation, 14 Remus str., Timisoara, Romania, e-mail: dianapopescu_tm@yahoo.com

over time an important place in scientific papers analyzing organizational behavior. Although organizational culture characterizes organizations along, it became the subject of debate 25 years ago, because contemporary managers showed a great interest in identifying the elements that make the difference between success and failure in an organization [2, 3, 4].

The concept of corporate culture emerged in late 70's, in the United States of America. That finding was made by Jean-Luc Vachette in French magazine management (*Revue Française de Gestion*), in a

number dedicated to the concept of corporate culture [17, 18, 19].

“Organizational culture” definition is difficult to be made because there is now a widely accepted vision by researchers or theorists. Considering these aspects, it is interesting to see different specialists’ opinions and theories on organizational culture content [11, 12].

Finally, it is able to see identity or differentiation elements. Table 1 summarizes the definitions for organizational culture made by some of the experts in the field.

Table 1. Organizational culture: main definitions synthesis (a synthesis made after [17, 18, 19, 20, 21, 22, 23])

#	Author / Authors	Organizational culture is defined as:
1	M. R. Louis (1980)	A set of beliefs/interpretations shared by a group of people. These beliefs are generally silent, are relevant to that group and are distinctive for the group. Also, they are sent to new members.
2	Thomas J. Peters and R.H. Waterman (1982)	A dominant and coherent set of values shared by members, induced by symbolic means.
3	Frost et al. (1985)	Talking about organizational culture is to talk about the symbolism importance for people - rituals, myths, stories and legends - about the events interpretation, ideas and experiences are influenced and structured by groups in which they live.
4	L. Smircich (1985)	By developing a common understanding of the events, objects, words and people in the organization develop a shared sense of their experiences facilitating coordinated action.
5	Van Maanen and Barley (1985)	Culture can be understood as a set of solutions defined by a group of people to face specific problems ... which they experience together.
6	Schein (1985)	Fundamental model assumptions made in the group and measure to resolve the external adaptation problems and internal integration that has worked well enough to be considered valid and therefore sent to new members as the correct way of thinking and perception in relation to these problems.
7	T. J. Sergiovanni and J. E. Corbally (1986)	The values system, symbols and shared group meanings transferring these values, symbols, meanings in material objects and ritual practices. Culture shows what is important to a particular group and how they should think, feel and behave group members. Elements of culture include customs and traditions, historical memories, whether mythical or real, collusions, customs, norms and expectations, shared meanings, common assumptions.
8	A. Strati (1992)	A symbol set, beliefs and behavior patterns learned, produced and recreated by people who devote their life energy and labor to one organization.
9	G. Kunda (1992)	Symbols group and shared meanings that provide shared rules governing cognitive and affective aspects of membership to organization.
10	G. Hofstede (1996)	Collective mental programming that distinguishes members of one organization from members of other organizations.
11	E. Burdus and G. Caprarescu (1999)	An artificial products set, core values and concepts, thinking and behavior modes in an organization generally accepted as common basis for action.
12	T. Gavrilă and V. Lefter (2002)	Managers thinking, ethical standards, behavior type’s management policies adopted traditions, attitudes and specific events that have marked the company evolution.
13	S. Certo (2002)	A common values set and beliefs which organization members have it regarding the operation and existence of their organization.
14	D. Iacob and D.M. Cismaru (2002)	Regular behavioral actions that occur between individuals (rituals, ceremonies, languages), the rules accepted by all employees, philosophy pursued by the organization's policy, rules for integrating employees new feeling or climate.

15	I. Cochina (2004)	Represented by the components beliefs of one organization expressed through an attitudes system, behaviors, attachments, expectations, aspirations and performers and managers values, outlined during its development, outlined them in some measure the functionality and performance, with a impact on its members satisfaction.
16	Dygert C.B. and Jacobs R.A. (2006)	Involves rituals, symbols and stories associated with people categories, offering an insight into people's beliefs and values, the things that are important to them and the reasons behind those choices.
17	Alexandru Puiu (2007)	A structured material and spiritual results set of the organization by integrating a values and belief system that is cultivated and transmitted among members and outside the unit.
18	O. Nicolescu and I. Verboncu (2008)	A values, beliefs, aspirations set, expectations and behaviors shaped over time in each organization prevailing there and his condition directly and indirectly functionality and performance.
19	E. Schein (2010)	A shared pattern basic assumptions of group problem solving external adaptation and internal integration that has worked well enough to be considered valid and, therefore, to be shared with other new members as the correct way to perceive, understand and feel in relation to those problems.
20	M. Thévenet (2010)	How to respond to the current situation in life.

In addition to national culture, organizational culture has a strong effect on management. Organizational culture is embedded in national cultures in which an organization operates. Although both cultures play different roles, each affect how things work in multinational corporations. Thus, both factors must be considered, especially in the context of global virtual teams using information and communication technologies.

It must recognize the complexity, range and distinctiveness corporate cultures. By definition, organizational or corporate culture includes values and beliefs expressed in artifacts, symbols and practices, and organizational language, traditions, myths, rituals, and stories [4, 7, 8, 9, 13].

Schein (1999) sees it as “the way we do things around here. In essence, corporate culture is learned hypotheses jointly in common, such as values, beliefs, and assumptions” (1999, p 48) [18]. Therefore, organizational impact varies largely by communication technology used in global teams - can act as a barrier or information retention and communications technology or to provide the necessary support in terms of culture technology infrastructure and organizational culture to actively promote.

Current interest, given to measurement intercultural competence has inspired the development of many new assessment tools. These tools are related to a needs variety for measuring outcomes, program evaluation and personnel selection, and providing tools for vocational guidance and training [10, 17, 18, 19].

III. DEBATES ON THE RESEARCH METHODOLOGY

Peterson Cultural Style Indicator (PCSI) is a tool that allows international comparisons with their own culture typical of people in over 70 countries. The questionnaire consists of 25 questions. A different colors graph has your own cultural style that you can compare with over 70 countries targets. Brooks Peterson is using five global cultural dimensions (cite by [6, 13]:

- Equality versus Hierarchy,
- Direct versus Indirect,
- Individual versus Group,
- Task versus Relationship,
- Risk versus Caution.

A pilot research was also made in Timisoara, Romania. The research was realized during the month of October 2012. Figure 1 represents the personalized suggestions based on our score investigation.

Based on the answers received from the questionnaire, the research results and conclusions were summed in Table 2.

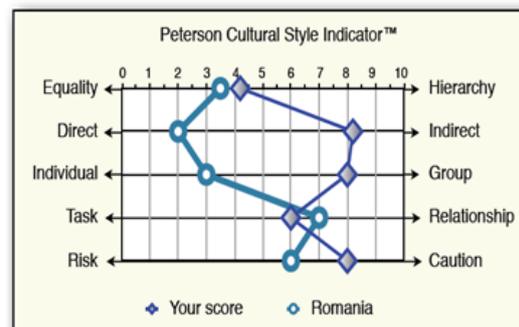


Fig. 1. Peterson Cultural Style Indicator™ chart – Romania
Source: Peterson Cultural Style Indicator

Table 2. Peterson Cultural Style Indicator™ chart – Romania versus United States of America

<i>Romania</i>	<i>United States of America</i>
<p>1) <i>Equality versus Hierarchy</i></p> <ul style="list-style-type: none"> • In Romania, people are more focused on Hierarchy, they are more self-in directed; • There is no flexibility as a member in a company or a team; • Men and women are treated differently and expect them to behave differently; 	<p>1) <i>Equality versus Hierarchy</i></p> <ul style="list-style-type: none"> • In USA, people are more focused on equality, they are more self-directed; • They want more flexibility as a member in a company or a team; • No differences are made between men and women.
<p>2) <i>Direct versus Indirect</i></p> <ul style="list-style-type: none"> • Here, people are more diplomatic, the opinions are expressed diplomatically living room for interpretations; • When it is the case, they are not open to confront difficulties or conflicts. 	<p>2) <i>Direct versus Indirect</i></p> <ul style="list-style-type: none"> • Here, people are more direct, they are trying discretely to avoid differences; • When it is the case, they are open to confront difficulties or conflicts.
<p>3) <i>Individual versus Group</i></p> <ul style="list-style-type: none"> • Romanian are more focused on collaborations and group ideas and goals; • Most of the time follow and enforce guidelines; • The group affiliation is used as a way of determining their identity; • Conform so much to social norms. 	<p>3) <i>Individual versus Group</i></p> <ul style="list-style-type: none"> • Americans are more focused on the individual level; • They are more flexible, but focused more on the individuals and less on the team; • A group affiliation is not used as a way of determining their identity; • Not conform so much to social norms.
<p>4) <i>Task versus Relationship</i></p> <ul style="list-style-type: none"> • Romanians are focused on Relationship; • People are defined based on who they know; • Before starting a new business, there are established some comfortable relationships; • For hiring a person for a job, sometimes are used more personal selection criteria (such as family connections). 	<p>4) <i>Task versus Relationship</i></p> <ul style="list-style-type: none"> • Americans are focused on Task; • People are defined based on who they do; • They start first the business and then establish the relationships; • For hiring a person for a job, there are used impersonal selection criteria (such as résumés, test scores).
<p>5) <i>Risk versus Caution</i></p> <ul style="list-style-type: none"> • Before taking a decision, more information are collected; • They want more rules, guidelines, and directives; • Don't change plans at the last minute. 	<p>5) <i>Risk versus Caution</i></p> <ul style="list-style-type: none"> • More comfortable with Risk, they take quickly a decision with less information; • Prefer less rules, guidelines, and directives; • Prefer to change plans at the last minute.

IV. CONCLUSION

Unfortunately, until now, in the literature there has been no highly described Romanian Cultural model. At the base there are some Romanian research studies, studies which can be highlighted by a factors number that characterize much a good part from the organizations in Romania. Typically, an organizational culture analysis is based on elements of national culture. The studies made in Romania have concluded that our country still maintains a conservative design based on life experience. Middle-aged people are close to family, traditions, nature, always seeking to make sense of life. In addition, the opposite are young people who are oriented to new,

being extremely capable for efforts to succeed. An individual's behavior is influenced by personality traits held. Studies have revealed that some understanding organizational behavior is possible by considering the emotional element, represented by interests and motivations. They may be innate or acquired, conscious or unconscious, physiological needs are simple or abstract ideals. Sex and age variables also explain certain work performance.

Many activities, by their nature, are specific to women, and that they tend to reach high performance in a relatively short time. In some professions, age could be a problem or, conversely, a notable advantage. Some professions are considered boring by young people (for example working on automobile assembly lines), but the elderly are well professional

integrity, obtain professional satisfactions and, are less prone to fluctuation [12].

Organizational culture is born with the organization.

A strong organizational culture is one in which there is a strong alignment to the values and principles. An organization with such a culture does not require control systems and bureaucratic systems. People that make a strong culture do not require additional impulses, already accepted unconditionally "game rules" and the organization manages to form a desirable employee type.

Resources within an organizational system are characterized by certain interdependence, what means that it should prevail in its teamwork.

V. ACKNOWLEDGEMENTS

This work was realized with the support of Mr. Brooks Peterson, the Across Cultures founder and the creator of The Peterson Cultural Style Indicator™, was partially supported by the Ministry of Education, Research, Youth and Sports, and by Politehnica University of Timisoara financial support.

REFERENCES

- [35] Burduș, E.; Căprărescu, Gh. "Fundamentele managementului organizației", Ed. Economică, București, p.183. (1999).
- [36] Certo, S., (2002), "Managementul general al firmei", Ed. Teora, București, p. 520.
- [37] Cochină, I. "Managementul general al firmei", Ed. Tribuna Economică, București, p. 39. (2004).
- [38] Dygert, C.B.; Jacobs, R. A. "Managementul culturii organizaționale. Pașii spre succes", Ed. Polirom, Iași, p.21. (2008).
- [39] Frost, P. J.; L. F. Moore, et al. "Organizational Culture". Beverly Hills, Sage. (1985).
- [40] Gavrilă, T.; Lefter, V. "Managementul general al firmei", Ed. Economică, București, p. 265. (2002).
- [41] Heintz, M. "Etica muncii la romanii de azi", Editura Curtea Veche, Bucuresti (2005).
- [42] Hofstede, G. "Managementul structurilor multiculturale. Software-ul gândirii". (Cultures and Organizations. Software of the mind), Traducere de Gabriela Ochiană, Coordonare științifică a colecției Prof. Univ. Dr. Ovidiu Nicolescu, Editura Economică, București (1996).
- [43] Iacob, D.; Cismaru, D. M. "Organizația inteligentă", Ed. Comunicare.ro, București, p.101 (2002).
- [44] Kunda, G. "Engineering Culture: Control and Commitment in a High-Tech Corporation". Philadelphia: Temple UP (1992).
- [45] Louis, M.R. "Organizations as culture-bearing milieu". In Organizational Symbolism. Edited by L.R. Pondy, et al. Greenwich, CT: JAI (1980).
- [46] Megargee, E. I. "The California Psychological Inventory Handbook", Jossey-Bass Publishers (1972).
- [47] Nicolescu, O.; Verboncu, I. "Fundamentele managementului organizației", Ed. Universitară, București, p. 322 (2008).
- [48] Sergiovanni, T.J.; Corballz, J.E. (Eds.), "Leadership and organizational culture" (pp. 36 – 63), Urbana: University of Illinois Press (1986).
- [49] Peters, Th. J.; Waterman, R. H. "In Search of Excellence. Lessons from America's Best-Run Companies". New York: Harper & Row (1982).
- [50] Puiu, Al. "Management – analize și studii comparative", Ed. Independența Economică, Pitești, Romania, p.66 (2007).
- [51] Schein, E. H. "Organizational Culture and Leadership: A Dynamic View". San Francisco: Jossey-Bass Publishers (1985).
- [52] Schein, E. H. "The Corporate Culture Survival Guide: Sense and Nonsense about Cultural Change". Jossey-Bass, San Francisco (1999).
- [53] Schein, E. "Organizational Culture and Leadership", 4th Edition, John Wiley and Sons, Inc., USA, p.18 (2010).
- [54] Smircich, L., "Organizational culture", Beverly Hills: Sage Publications (1985).
- [55] Thévenet, M. "La culture d'entreprise", Ed. Puf, Collection Que Sais-Je, numéro 2756 (2010).
- [56] Van Maanen, J.; Barley, S. R. "Occupational communities: Culture and control in organizations". In B. M. Staw & L. L. Cummings (Eds.), Research in organizational behavior (Vol. 6). Greenwich, CT: JAI Press (1985).
- [57] Strati, A. "Organizational Culture", Berlin-New York, p.578 (1992).