



ISSN 1582-5949

<http://www.upet.ro/anale/economie/>

*Universitas Publishing House
Petroșani - Romania*

**ANNALS
OF THE UNIVERSITY OF PETROȘANI
~ ECONOMICS ~**

VOL. X - PART III

2010

*From 2009 the journal is classified in the B+ Category (code 23) by the
National Council for Scientific Research in Higher Education from
Romania (CNCSIS).*



EDITOR OF PUBLICATION

Prof. Eng. Ioan-Lucian BOLUNDUȚ Ph.D., e-mail: ibol@upet.ro

ADVISORY BOARD

- **Prof. Eng. Ec. Ioan ABRUDAN** Ph.D. Technical University of Cluj-Napoca, *Romania*
- **Prof. Ec. Crișan ALBU** Ph.D. Academy of Economic Studies, Bucharest, *Romania*
- **Prof. Eng. Ec. Ionel BARBU** Ph.D. „Aurel Vlaicu” University of Arad, *Romania*
- **Prof. Mircea BARON** Ph.D. University of Petroșani, *Romania*
- **Prof. Ec. Constantin BĂGU** Ph.D. Academy of Economic Studies, Bucharest, *Romania*
- **Prof. Ec. Maria BOLDEA** Ph.D. West University of Timișoara, *Romania*
- **Prof. Ec. Petre BREZEANU** Ph.D. Academy of Economic Studies, Bucharest, *Romania*
- **Prof. Ec. Sorin BRICIU** Ph.D. „1 Decembrie 1918” University of Alba-Iulia, *Romania*
- **Prof. Ec. Anișoara CAPOTĂ** Ph.D. „Transilvania” University of Brașov, *Romania*
- **Prof. Ec. Laura Mariana CISMAȘ** Ph.D. West University of Timișoara, *Romania*
- **Prof. Ec. Ioan COSMESCU** Ph.D. „Lucian Blaga” University of Sibiu, *Romania*
- **Prof. Ec. Horia CRISTEA** Ph.D. West University of Timișoara, *Romania*
- **Prof. Ec. Tatiana DĂNESCU** Ph.D. “Petru Maior” University of Tg. Mureș, *Romania*
- **Prof. Ec. Ioan Constantin DIMA** Ph.D. “Valahia” University of Târgoviște, *Romania*
- **Prof. Ec. Luigi DUMITRESCU** Ph.D. „Lucian Blaga” University of Sibiu, *Romania*
- **Assoc. Prof. Ec. Codruța DURA** Ph.D. University of Petroșani, *Romania*
- **Assoc. Prof. Valentina FETINIUC** Ph.D. International Center for Research into Economic Transformations, *Republic of Moldova*
- **Prof. Jaime GIL ALUJA** Ph.D. Royal Academy of Economics and Finance, Barcelona, *Spain*
- **Prof. Ec. Janusz GRABARA** Ph.D. Czeszochowa University of Technology, *Poland*
- **Prof. Ec. Constanța IACOB** Ph.D. University of Craiova, *Romania*
- **Prof. Ec. Mihaela KELEMEN** Ph.D. Keele University, *United Kingdom*
- **Prof. Ec. Mariana MAN** Ph.D. University of Petroșani, *Romania*
- **Assoc. Prof. Mat. Ec. Ilie MITRAN** Ph.D. University of Petroșani, *Romania*
- **Prof. Eng. Vladimír MODRÁK** Ph.D. Technical University of Košice, *Slovakia*
- **Prof. Aladár NAGY** Ph.D. University of Miskolc, *Hungary*
- **Prof. Eng. Jozef NOVÁK-MARCINČIN** Ph.D. Technical University of Košice, *Slovakia*
- **Prof. Ec. Dumitru OPREAN** Ph.D. „Babeș-Bolyai” University of Cluj-Napoca, *Romania*
- **Prof. Natalia PASHKEVICH** Ph.D. St. Petersburg State Mining Institute, *Russia*
- **Assoc. Prof. Francesco PASTORE** Ph.D. Second University of Napoli, *Italy*
- **Prof. Marina PESHKOVA** Ph.D. Mine University of Moscow, *Russia*
- **Prof. George POEDE** Ph.D. „Al.I.Cuza” University of Iași, *Romania*
- **Prof. Ec. Mirjana RADOVIĆ MARKOVIĆ** Ph.D. Institute of Economic Sciences, Belgrade, *Serbia*
- **Assoc. Prof. Ec. Ilie RĂSCOLEAN** Ph.D. University of Petroșani, *Romania*
- **Prof. Oleksandr ROMANOVSKIY** Ph.D. National Technical University of Kharkov, *Ukraine*
- **Prof. Bruno SCHÖNFELDER** Ph.D. Technical University of Freiberg, *Germany*
- **Prof. Ec. Elena Claudia ȘERBAN** Ph.D. Academy of Economic Studies, Bucharest, *Romania*
- **Prof. Ec. Aurelia-Felicia STĂNCIOIU** Ph.D. Academy of Economic Studies, Bucharest, *Romania*
- **Prof. Ion STEGĂROIU** Ph.D. “Valahia” University of Târgoviște, *Romania*
- **Prof. Ec. Ovidiu STOICA** Ph.D. “Alexandru Ioan Cuza” University of Iași, *Romania*
- **Assoc. Prof. Alexandru STRATAN** Ph.D. Institute of Economy, Finance and Statistics, *Republic of Moldova*
- **Prof. Ec. Emilia VASILE** Ph.D. “Athenaeum” University of Bucharest, *Romania*
- **Prof. Yuriy VILKUL** Ph.D. - Technical University of Krivoirot, *Ukraine*

EDITORIAL BOARD

Editor-in-chief: Prof. Ec. Mariana MAN Ph.D. University of Petroșani, *Romania*

Deputy Editor-in-chief: Lecturer Ec. Imola DRIGĂ Ph.D. University of Petroșani, *Romania*

Associate Editors

- **Assoc. Prof. Eng. Ioan CUCU** Ph.D. University of Petroșani, *Romania*
- **Assoc. Prof. Ec. Claudia ISAC** Ph.D. University of Petroșani, *Romania*
- **Lecturer Ec. Oana DOBRE-BARON** Ph.D. University of Petroșani, *Romania*
- **Lecturer Ec. Dorina NIȚĂ** Ph.D. University of Petroșani, *Romania*

Editorial Secretary

- **Assist. Prof. Oana-Carmen RĂVAȘ** University of Petroșani, *Romania*
- **Assist. Prof. Ec. Ana-Petrina STANCIU** University of Petroșani, *Romania*

Technical Editor

Assist. Prof. Marian FOAMETE University of Petroșani, *Romania*

Editorial office address: University of Petroșani, 20 University Street, Petroșani, 332006, Romania, Phone: (40)254/542.580, 542.581, E-mail: imola.driga@gmail.com

Contents

Antonelli, M.A. - Income Distribution and Rent Seeking Costs: A Note	5
Brezeanu, P.; Triandafil, C.M.; Huidumac, C. - Company Financial Diagnosis in CEE Countries	13
Bucurean, M.; Costin, M.A. - Appreciative Intelligence and Its Influence on Romanian Managers' Behaviour	25
Butuza, A.C.; Hedre, L.V. - Contract Construction Activity	33
Catana, P. - Phenomena and Basic Macroeconomic Indicators for Measurements	41
Cenar, I. - The Financial - Accounting Image for the Public Benefits of Retirement	51
Cenușe, M.; Drigă, I. - Advantages and Disadvantages of the Euro	61
Chaiboonsri, C.; Sriboonjit, J.; Sriwichailamphan, T.; Chaitip, P.; Sriboonchitta, S. - A Panel Cointegration Analysis: An Application to International Tourism Demand of Thailand	69
Chaitip, P.; Sriboonchitta, S.; Balogh, P.; Chaiboonsri, C. - On Tests for Long-Term Dependence: India's International Tourism Market	87
Ciuhureanu, A.T.; Gorski, H.; Balteș, N. - Study on Identifying the Consultancy Needs of the Members of the Territorial Pact and the County Partnerships in the Centre Region	95
Costin, M.A.; Bucurean, M. - The Importance of "Speed-Dating" for Romanian Entrepreneurs	105
Cucu, I.; Cucu, C.I.; Boatcă, M.E. - Modern Approaches in the Industrial Maintenance Management - The Conditional Type Maintenance	113
Dinculescu, E.S. - Distance Banking Services - A Solution for the Romanian Management Banking System	121
Dobre-Baron, O.; Fleșer, A. - Unemployment - The Unbalance of the Labour Market in Jiu Valley	129
Florescu, D.; Brezeanu, P. - Co-Financing One of the Many Problems in the Process of Accessing European Funds	143
Fulger, V.; Hirghiduș, I. - Methods for Determining the Community to Accept the EU Rules Regarding the Quality of Life in the Urban Areas	151
Grigore, G. - Ethical and Philanthropic Responsibilities in Practice	167
Grigore, G.; Grigore, C.; Grigore, Gh. - The Economic Justification of the Responsible Behaviour of Companies	175

Hedre, L.V. - Quality of Construction Activity	183
Hirghiduș, I.; Fulger, V. - Emerging Rationality and the Subject of Liberalism	189
Hulea, L. - Communication - Organizations' Work Device	197
Lábodi, Cs.; Michelberger, P. - Necessity or Challenge - Information Security for Small and Medium Enterprises	207
Markova, S.; Petkovska-Mirčevska, T. - Entrepreneurial Finance: Angel Investing as a Source of Funding High-Growth Start-Up Firms	217
Mateș, D.; Feies, G.C. - The Necessity of Accounting Information in the Management of the Communitarian Services of Public Utilities	225
Mungiu-Pupăzan, M.C.; Vasilescu, M. - The Splitting of Labour Market and Employment Entrepreneurial Strategies	235
Munteanu, R. - The Connection between Management and Technology and the Technological Management	243
Njanike, K. - Central Bank Independency on the Development of the Financial Sector. A Case of Reserve Bank of Zimbabwe (1998-2008)	251
Răbonțu, C.I.; Todoruț, A.V. - Study on Organic Food Products in Romania	265
Rus, L. - Basic and Alternative Rules in Evaluation of Tangible and Intangible Assets	273
Sabău-Popa, C.D. - European Fisheries Fund - New Development Opportunities for Romania	283
Sava, A.Ș. - The Need for State in the Economy- Epistemological Approach	291
Schmidt, M.C. - Labour Market and Social Policy in the Jiu Valley	301
Stăncescu, I.; Popeangă, V.; Vătuțiu, V.; Vătuțiu, V.E. - Improving Public Services through a Organizational Performance Management	309
Stuparu, D.; Vasile, T.; Dăniasă, C.I. - Bayesian Approach of Decision Problems	321
Todoruț, A.V.; Răbonțu, C.I.; Cîrnu, D. - Lean Management - The Way to a Performant Enterprise	333
Triandafil, C.M.; Brezeanu, P. - Corporate Financial Analysis and Localization Criteria - Emerging versus Developed Countries: Case Study on it Commercial Companies	341
Ușurelu, V.I.; Marin (Nedelcu), M.; Danailă (Andrei), A.E.; Loghin, D. - Accounting Ethics - Responsibility versus Creativity	349
Vasilescu, M.; Mungiu-Pupăzan, M.C. - Inflation Targeting - Between Theory and Reality	357
Zapodeanu, D.; Cociuba, M.I. - Financial Soundness Indicators	365
Ziolkowska, J.; Ziolkowski, B. - Sustainable Development in the European Union: Tools for Policy Evaluation	373

INCOME DISTRIBUTION AND RENT SEEKING COSTS: A NOTE

MARIA ALESSANDRA ANTONELLI *

ABSTRACT: *This paper analyzes a rent seeking competition where risk neutral agents have a different income. The individual income is private information but the income distribution is common information. Like the Hillman and Samet (1987) model the individual outlays in rent seeking is equal to the expected rent, but the winning probability for each agent is a function of its income. As a consequence, the social costs of the rent seeking depend on the income distribution and they can be lesser than the traditional measure pointed out by Hillman and Samet (1987).*

KEY WORDS: *rent-seeking; dissipation of rent, income distribution*

JEL CLASSIFICATION: D72; D31; D78

1. INTRODUCTION

The literature on the rent seeking (Posner 1975; Tullock 1980; Hillman and Katz, 1984) is very extensive. Particular attention is posed on the social costs of the rent seeking activities that is on the amount of resources spent for unproductive lobbying activities and thus subtracted from productive activities. In technical language, when the total amount of invested resources is equal to the value of the rent, a total dissipation occurs with no added value for the economic system.

As the literature points out, the phenomenon verifies in different circumstances: regulation process (Stigler, 1971), patent competition in the R&D, job promotion within organizations (Milgrom and Roberts, 1993), application of quotas and of favourable legislation in agricultural sector (Bachev, 2009), auctions (Baye et al., 1996; Amann and Leininger, 1996; Che and Gale, 1998).

* *Assist.Prof. "La Sapienza" University of Rome, Faculty of Law, Italy,*
alessandra.antonelli@jus.uniroma1.it

Following Hillman and Samet (1987), we analyze a rent seeking competition between two risk neutral agents. The rent seekers agents are asymmetric because they have different income and the rent seeking competition is structured as a first price auction. In this framework the paper shows that the social costs of the rent seeking crucially depend on the income distribution.

The paper is structured as follows. Section 2 is a review of the literature, sections 3 and 3.1 describe the rent seeking competition and the expenditure functions of the agents. The maximization problem of the agents is analyzed in section 4 while the social costs of the rent seeking are calculated in section 5. Finally, Section 6 concludes the paper.

2. LITERATURE OVERVIEW

Public choice literature on rent seeking is very extensive. Different models are based on different hypotheses. Some models consider risk neutral rent seekers agents competing for an exogenous rent X (Posner 1975; Tullock 1980 a); 1980 b); 1980 c); 1989), while others models analyze the rent seeking competition with risk averse rent seekers agents (Hillman and Katz 1984).

Unlike the Posner's model where there is a total dissipation of the rent, Tullock highlights a different result. In his model the probability of each agent to obtain the rent is not a linear function of investments in rent seeking activities, but it depends on a parameter (r) representing the "effectiveness" of the rent seeking expenditures.

Therefore, in this setting the value of r (equal for all agents) and the number of the agents are crucial to determine the amount of resources invested in lobbying activities and representing the "social costs of the rent seeking". When the total amount of individual expenditures in rent seeking is equal to the value of the rent for which the agents compete, a total dissipation of the rent occurs. Extending the Tullock's model, Dari-Mattiacci and Parisi (2005) show that, introducing an exit option for risk neutral rent seeker agents, valuable rents may remain unexploited¹. These lost rents represent an additional social cost of the rent seeking.

The case of risk adverse agents is considered by Hillman and Katz (1984). In their paper the social cost of the rent seeking is lower than the risk neutrality case if the coefficient of absolute risk aversion is decreasing.

Another class of models (Krueger 1974; Appelbaum and Katz 1987; Fabella 1996) considers the rent endogenously determined by the rent seeking competition and analyzes the behavior of the rent seekers to obtain this rent. On the contrary, Appelbaum and Katz (1987) present an analysis of the interaction of a regulator and the rent seeker firms and they show that the outcome (the value of the rent and the rent seeking expenditures) depends on the relative bargaining powers of the regulator and the firms.

In any case, all these models are based on the crucial assumption that the agents are identical: they have the same utility function, the same income and solve the same maximization problem. Therefore, the equilibria of the rent seeking competition

¹ See also J. Munster (2007).

are necessarily symmetrical and the social cost of the rent seeking is the product between the individual expenditure in lobbying activities and the number of the agents. A different perspective appears if asymmetrical agents are considered (Rogerson 1982; Leininger 1993; Kohli and Singh 1999).

In particular, Kohli and Singh (1999) generalize the models of Tullock (1980) and of Appelbaum and Katz (1987). Unlike Appelbaum and Katz (1987), they introduce an asymmetry among the agents rent seekers captured by a parameter representing the different effectiveness of the lobbying outlays influencing the winning probability (i.e. the probability to obtain the rent). Therefore, even if the agents invest the same amount of resources, they can produce a different level of “influence” towards the decision maker and so, a different probability to obtain the rent. In this sense, they generalize the Tullock’s model (1980) considering agents characterized by a different parameter of effectiveness “ r ”.

Other extensions (Leininger (1992) consider an interaction à la Stackelberg between rent seeker firms. In this case, the outcome of the rent seeking game depends on the asymmetries in effectiveness and on timing of the moves.

Finally, recently the auction theory focuses on game theory methodology to model rent seeking competition. In particular, the “all pay” first price models are linked to the rent seeking framework because, unlike a standard auction where active participation constitutes only a conditional commitment, in a “all pay” first price auction active participation constitutes an unconditional commitment (even the losers pay).

In this class of models (Baye et al., 1996; Amann and Leininger, 1996) the asymmetry among competitive agents is related to the subjective valuation of the bid’s object.

3. THE RENT SEEKING COMPETITION

We consider two agents risk neutral. At the same time they compete for a rent X^2 investing some resources in rent seeking outlays. The assignment mechanism is like a first price auction: the agent with a greater bid obtains the rent, but all competing agents bear sunk costs.

The agents are not identical because they have a different income, respectively W_1 and W_2 . The individual level of income identifies the *type* of the agent and it is a continuous random variable on $[0; \overline{W}]$. Therefore, $[0; \overline{W}]$ is the set of the possible *types*. Each agent only knows his /her type (his/her income). So, the agent’s type is a private information, but the density function, $p(w)$, of the variable W and its cumulative distribution, $P(W)$, are common information. The standard assumptions on cumulative distribution are satisfied so that: $P(0)=0$ and $P(\overline{W})=1$. W_1 and W_2 are independent events.

² The analysis is restricted to the short run, since other agents can not enter to compete for this rent.

In this framework, we consider the rent seeking outlays as a function of the income³. The following section clarifies this point.

3.1. The expenditure functions

Each agent's expenditure in rent seeking is a continuous increasing function of the income: $s_i = f(W_i)$ with $f' > 0$ and $i = 1, 2$

The asymmetry between the agents is represented only by the different individual income. They solve the same maximization problem, have the same risk attitude, the same functional form of the function $f(\cdot)$ ⁴.

Since W_i is a random variable, a distribution of probability is induced on $s_i \in [0; \bar{s} = f(\bar{W})]$. In order to obtain the density function of s_i , a transformation of random variable is needed.

Let $G(s)$ be the probability that the expenditure $s_i = f(W_i)$ is lower than a given s :

$$\begin{aligned} G(s) &= \text{prob}\{f(W_i) < s\} = \text{prob}\{W_i < f^{-1}(s)\} = \\ &= \int_0^{f^{-1}(s)} p(W_i) dW_i = P[f^{-1}(s)] - P(0) = P[f^{-1}(s)] \end{aligned} \quad (1)$$

The density function $g(s)$ is⁵: $g(s) = p(f^{-1}(s)) \cdot \frac{df^{-1}(s)}{ds} = p(f^{-1}(s)) \cdot (f^{-1}(s))'$

Given the assignment mechanism of the rent, the agent 1 obtains the rent if his/her outlay in rent seeking ($s_1 = f(W_1)$) is greater than the opponent's outlay ($s_2 = f(W_2)$). In other words, the winning probability of the agent 1 is the probability that his/her income is greater than the opponent's income⁶:

$$\begin{aligned} \text{prob}\{s_2 < s_1\} &= \text{prob}\{f(W_2) < s_1\} = \text{prob}\{W_2 < f^{-1}(s_1)\} = \\ &= \int_0^{f^{-1}(s_1)} p(W_2) dW_2 = P[f^{-1}(s_1)] \end{aligned} \quad (2)$$

The losing probability for the agent 1 is $\{1 - P[f^{-1}(s_1)]\}$.

4. THE MAXIMIZATION PROBLEM OF THE AGENTS

³In most of the models of rent seeking, the rent seeking expenditures depend on the value of the rent (Tullock '67; Krueger '74; Posner '75; Tullock '80).

⁴In the contrary case, it is obvious that a more risk adverse agent invests less than the other agent.

⁵It is the first derivative with respect to s of the cumulative distribution $G(s)$. Since $G(s)$ is a composite function of s , the first derivative is obtained applying the chain rule.

⁶Because the expenditure functions are increasing in income.

⁷Since $f^{-1}(s_1) = W_1$, $P[f^{-1}(s_1)] = P(W_1)$. Nevertheless the transformation of random variable is needed because even if the new random variable $s(\cdot)$ has the same probability order of w (because it is a monotone increasing transformation of W), the level of probability associated to $s(\cdot)$ and W can be different.

Each agent maximizes his/her payoff, i.e. his/her net income given by the personal income (W_i with $i=1,2$) minus the expenditures in rent seeking (s_i with $i=1,2$) plus the rent (X), if obtained.

Given the risk neutrality hypothesis, the individual participation constraint to the rent seeking competition is such that the expected payoff is greater or equal to the initial income:

$$(W_i + X - s_i) P[f^{-1}(s_i)] + (W_i - s_i) \{1 - P[f^{-1}(s_i)]\} \geq W_i \quad \text{for } i=1, 2 \quad (3)$$

With simple calculations, the (3) can be rewritten as:

$$s_i \leq XP[f^{-1}(s_i)] \quad \text{for } i= 1, 2 \quad (3')$$

The condition (3') represents the set of the possible strategies for each agent. The individual outlays in rent seeking are smaller or equal to the expected rent⁸. The agent 1 solves the following maximization problem (the identical problem is solved by the agent 2 changing the subscripts):

$$\max_{s_1} E(U_1) = (W_1 + X - s_1) P[f^{-1}(s_1)] + (W_1 - s_1) \{1 - P[f^{-1}(s_1)]\} \quad (4)$$

With simple manipulations, we can write: $\max_{s_1} E(U_1) = X P[f^{-1}(s_1)] + W_1 - s_1$

The first order condition is: $\frac{dE(U_1)}{ds_1} = X p(f^{-1}(s_1)) \cdot (f^{-1}(s_1))' - 1 = 0$. Since $s_1 = f(W_1)$

and $W_1 = f^{-1}(s_1)$, we have that $f' = \frac{ds_1}{dW_1}$ and $(f^{-1})' = \frac{dW_1}{ds_1} = \frac{1}{f'}$, the first order condition becomes:

$$\frac{dE(U_1)}{ds_1} = -1 + X p(W_1) \cdot \frac{1}{f'} = 0 \quad (5)$$

or

$$Xp(W_1) = f' \quad (5')$$

Integrating previous expression, we have the expenditure function of the agent 1:

$$f(W_1) = XP(W_1) \quad (6)$$

where

$P(W_1)$ is the winning probability of the agent 1 and represents the probability that the opponent competitor has a smaller income.

The expenditure function for the agent 2 is:

$$f(W_2) = XP(W_2) \quad (6')$$

⁸ Following the traditional framework of the public choice models, we assume that the agent is not budget constrained or, in other words, that the agent can borrow.

where

$P(W_2)$ is the winning probability of the agent 2.

Like all the rent seeking models with risk neutral agents, each agent invests in rent seeking activities an amount of resources equal to the expected value of the rent.

This is not surprising and crucially derives from the risk neutrality of the agents. Nevertheless, in most of the models considering symmetrical agents, the

winning probability is $\frac{1}{n}$ with $n= 1,2,\dots,n$ and each agent competes for an expected

rent equal to $\frac{1}{n} X$. In the considered case, the expected value of the rent is not the

same for the two agents, because they have a different winning probability depending from their income. So for the agent 1, given his/her income of W_1 , the winning probability is the probability that the unknown variable W_2 is less than W_1 . The symmetrical reasoning applies to the agent 2. Obviously, the agent with a greater income invests a greater amount of resources in rent seeking activities.

5. THE SOCIAL COSTS OF THE RENT SEEKING

Following the literature, we define the social costs (SC) of the rent seeking activities the total amount of resources invested in unproductive lobbying activities and so, subtracted from productive activities.

In this case:

$$SC = s_1 + s_2 = f(W_1) + f(W_2) = XP(W_1) + XP(W_2)$$

There is a total dissipation of the rent if the total amount of resources invested are equal to the value of the rent, that is:

$$XP(W_1) + XP(W_2) = X$$

The previous expression can be written as

$$P(W_1) + P(W_2) = 1 \quad (7)$$

or

$$P(W_1) + P(W_2) = P(\overline{W})$$

With identical agents ($W_1 = W_2 = W$), the “(6)” is $2P(W)=1$ or $P(W) = \frac{1}{2}$.

Therefore, a total dissipation of the rent results when both agents are *median* agents,

⁹ The “(6)” can be written as $P(W_1) = 1 - P(W_2)$. Note that $P(W_1)$ is the probability that $W_2 < W_1$ for the agent 1 and $P(W_2)$ is the probability that $W_1 < W_2$ for the agent 2. Then, $1 - P(W_2)$ is the probability that $W_2 < W_1$. Nevertheless, $P(W_1)$ is not necessarily equal to $1 - P(W_2)$ because W_1 and W_2 are private information and so, $P(W_1)$ and $P(W_2)$ are probability valued by the agents 1 and 2 given one's own income. Then, a total dissipation of the rent results only if the valued probability $P(W_1)$ and $1 - P(W_2)$ are equal. On the contrary, it is possible an underdissipation or an overdissipation as summarized by the expressions “(7)” and “(8)”.

i.e. they have the median income. With asymmetrical agents ($W_1 \neq W_2$) a total dissipation of the rent can result even if the variation between the two incomes is high. This point is summarized in the following claim:

Claim 1

If the agents rent seekers are characterized by a different income, the rent seeking activity implies a total dissipation of the rent if the sum of the cumulative probability associated to their incomes is equal to one.

At the same way we have an underdissipation and an overdissipation of the rent if:

$$P(W_1) + P(W_2) < 1 \quad (8)$$

$$P(W_1) + P(W_2) > 1 \quad (9)$$

Intuitively, claim 1 says that when both the agents have an income smaller or greater than the median income, conditions (8) and (9) are respectively satisfied confirming the underdissipation and the overdissipation of the rent. When the agents rent seekers are in opposite position with respect to the median income, the social costs of the rent seeking crucially depend on the income distribution of the rent seekers agents¹⁰.

6. CONCLUSIONS

This paper analyzes a rent seeking competition with risk neutral agents having a different income whose distribution is known. The expenditure functions are increasing with respect to the income. In this framework, the analysis shows that the social costs of the rent seeking depend on the income distribution. In particular, unlike the Hillman and Samet's result (1987), the rent seeking costs are smaller than the rent if the sum of the cumulative probabilities associated to the individual incomes is lesser than one.

REFERENCES:

- [1]. **Appelbaum, E.; Katz, E.** (1987) *Seeking Rents by Setting Rents: The Political Economy of Rent Seeking*, The Economic Journal, 97, 685-699
- [2]. **Bachev, H.** (2009) *Understanding efficiency of agrarian organization*, Annals of the University of Petrosani, Economics, 9(1), 27-42
- [3]. **Dari-Mattiacci, G.; Parisi, F.** (2005) *Rents, dissipation and lost treasures: rethinking Tullock's paradox*, Public Choice 124, 411-422
- [4]. **Fabella, R.V.** (1996) *The Olson Ratio and Indirectly Endogenous Rent*, Public Choice 8, 325-337
- [5]. **Hillman, A.L.; Katz, E.** (1984) *Risk Averse Rent Seekers and the Social Costs of Monopoly Power*, The Economic Journal 94, 104-110

¹⁰ Or, in other words, the social costs of the rent seeking depend on the sum of the cumulative distributions of the agents' incomes.

-
- [6]. **Hillman, A.L.; Samet, D.** (1987) *Dissipation of contestable rents by small numbers of contenders*, Public Choice 54, 63-82
- [7]. **Kholi, I.; Singh, N.** (1999) *Rent Seeking and Rent Setting with Asymmetric Effectiveness of Lobbying*, Public Choice 99, 275-298
- [8]. **Krueger, A.O.** (1974) *The Political Economy of the Rent Seeking Society*, American Economic Review 64, 291-303
- [9]. **Leininger, W.** (1993) *More Efficient Rent Seeking- A Munchausen Solution*, Public Choice 75, 43-62
- [10]. **Milgrom, P.; Roberts, J.** (1992) *Economics, Organization and Management*, Prentice Hall
- [11]. **Munster, J.** (2007) *Rents, dissipation and lost treasures: Comment*, Public Choice 130, 329-335
- [12]. **Posner, R.A.** (1975) *The Social Costs of Monopoly and Regulation*, Journal of Political Economy 83, 807-827
- [13]. **Rogerson, W.P.** (1982) *The Social Costs of Monopoly and Regulation: A Game-Theoretic Analysis*, Bell Journal of Economics 13, 391-401
- [14]. **Stigler, G.** (1971) *The theory of economic regulation*, The Bell Journal of Economics, 2, 3-21
- [15]. **Tullock, G.** (1989) *The Economics of Special Privilege and Rent Seeking*, Kluwer Academic Publishers: Dordrecht, The Netherland
- [16]. **Tullock, G.** (1980a) *Efficient Rent Seeking* in *Toward a Theory of the Rent Seeking Society* by J. M. Buchanan, R. D. Tollison and G. Tullock, Eds., Texas A&M University Press: College Station, 97-112
- [17]. **Tullock, G.** (1980b) *Rent Seeking as a Negative-Sum Game*, in *Toward a Theory of the Rent Seeking Society* by J. M. Buchanan, R. D. Tollison and G. Tullock, Eds., Texas A&M University Press: College Station, 16-36
- [18]. **Tullock, G.** (1980c) *The Welfare Costs of Tariffs, Monopolies and Theft*, in *Toward a Theory of the Rent Seeking Society* by J. M. Buchanan, R. D. Tollison and G. Tullock, Eds., Texas A&M University Press: College Station, 39-50

COMPANY FINANCIAL DIAGNOSIS IN CEE COUNTRIES

PETRE BREZEANU, CRISTINA MARIA TRIANDAFIL,
CĂTĂLIN HUIDUMAC *

ABSTRACT: *This paper focuses on developed versus emerging markets arbitrage in terms of investors' perception. We first perform a literature review on the topic, highlighting out both disconnection and transmission belt theories. Then we conduct a deep comparative analysis on the East-European corporate versus government spread bonds evolution during the last 10 years, 1997 being precisely the year when Basel II sovereign ceiling requirement was softened. Thus, we are interested especially in the way investors perceived East-European emerging countries afterwards. Conclusions are worthwhile in the context of the actual financial crisis from many perspectives: emerging markets attraction to foreign investors, corporate and sovereign rating interconnectivity for the countries in the sample (Romania, Bulgaria, Poland and Hungary) and corporate finance decision approach within East-European emerging countries.*

KEY WORDS: *sovereign ceiling; corporate rating; sovereign spreads; emerging*

JEL CLASSIFICATION: *E44, F30, G15*

1. INTRODUCTION

Macroeconomic volatility impacts corporate segment profitability. Literature revealed that company cash-flow is deeply correlated with the economic cycle. From the perspective of the sovereign default theory encapsulated by the „spillover effect”, a financial distress occurred at the macroeconomic level is likely to extend at the level of the corporations as well. Moreover, on the international capital market, a high country risk premium determines cost of equity increase.

Until 1997, based on the sovereign ceiling policy, rating agencies have never rated companies higher than the countries they were located into. This policy has been relaxed by Standard and Poor's once there has been agreed on the fact that deeply

* Prof., Ph.D., Academy of Economic Studies, Bucharest, Romania, brezeanupetre@yahoo.com

Ph.D. Student, Academy of Economic Studies, Bucharest, Romania,

cristina_triandafil@yahoo.com

Prof., Ph.D., Academy of Economic Studies, Bucharest, Romania

„dollarized” economies (Latin America countries) are less affected by potential exchange controls exerted in case of sovereign default. First, Moody’s has adopted a clear opposition to the „lite” sovereign ceiling policy; then it began applying it although during the Argentine crises all the companies which have been rated higher than the countries they were located into have defaulted.

In this context, sovereign ceiling phenomenon became a very important research area. There have been conducted many studies, especially in the case of Latin American countries in order to highlight a potential impact of the sovereign rating on corporate rating (Rocha and Garcia, 2004).

Theories generally rallied around two divergent approaches: disconnection and transmission belt principles. From the perspective of disconnection theory, sovereign spreads do not have any impact on the corporate spreads. This theory was validated especially at the level of the developed countries (Ferri, et. al., 2001).

Transmission belt theories assume a deep correlation between these two variables, especially from the perspective of the low significant information reflected into the corporate rating assigned to the companies located into emerging countries. The lack of transparency and reliability in terms of accurate financial information strengthens the idea of sovereign rating extension at the level of the individual corporations (Chan-Lau, 2006).

Even since 1970, analysts were preoccupied with a potential relationship between corporate rating and stock prices changes. Griffin and Sanvicente (1982) as well as Holthausen and Leftwich (1986), Cornell, Landsman and Shapiro (1989), Goh and Ederington (1999) highlighted out that rating downgrades were usually determined by stock prices decrease while a potential increase does not necessarily impact positively corporate rating dynamic.

Durbin and Ng (2005) pointed out that corporate spreads were lower than sovereign spreads while Peter and Grandes (2005) identified sovereign risk to be an important determinant of corporate spreads.

Liu et al. (1999) pointed out that sovereign ceiling phenomenon must be differentiated in accordance with the localization criteria. Developing countries imply a deep correlation between corporate and sovereign spreads while correlation is weaker within developed countries.

Since developed countries have a consolidated financial disclosure framework, corporate rating reflects to a high extent company’s creditworthiness and risk transfer from the sovereign entity towards the corporation is low.

Cantor and Pecker (1996) concluded that corporate and sovereign spreads relationship is based on asymmetry. A potential sovereign upgrade is not reflected at the level of the corporate spreads while a downgrade necessarily impacts corporate spreads increase. This assumption has been recently validated by Uribe and Yue (2006) who highlighted out that recent sovereign downgrades determined risk premium increase.

Kamin and Kleinst (1999) made a research on an extended database of Middle East, African and European countries and underlined that spreads on emerging markets debts are closely linked to debt maturity and currency the debt is denominated into. Goldberg and Verboven (2005) founded the theory on the macroeconomic credit risk

aggregate level reflected into the corporate bonds' spreads. Uribe and Yue (2006) identified the correlation between emerging economies and US stock market especially from the perspective of the fact that business cycle financing may be ensured by the international capital market.

Dionne and Gauthier (2005) unveiled that default risk can be quantified by the spread between corporate and government bond. Galytsky (2006) concluded that generalization is not the proper strategy that could be applied in the case of the sovereign ceiling analysis. It is necessary to perform it at the level of every country in accordance with the individual risk profile. This study follows up Galytsky rationale; since sovereign ceiling analysis implies a high degree of individualization, the focus has been oriented towards the East European emerging countries both at the global and individual level.

2. EMPIRICAL PERSPECTIVE ON CORPORATE-COUNTRY RATING

2.1. Database and methodology

The most recent theories on corporate and country rating correlation assume an impact exerted by the first variable towards the second one based on the interdependencies between company cash-flow and macroeconomic conditions; moreover, literature unveiled that correlation is stronger in case of emerging countries (Cavallo & Valenzuela, 2007).

This section focuses on revealing if this correlation can be validated at the level of a sample of 150 companies located in both emerging and developed countries (50% of the companies are located in developed countries and 50% are located in emerging countries). The innovative element consists of highlighting out the correlation at the general level which excludes a potential impact exerted by the industry. The sample includes companies activating in various fields (IT, retail, car manufacturing, mobile phone equipments, electronic).

Companies activating in the financial services field have been eliminated from the database because of the specific features implied by capital structure.

The motivation for excluding the potential influence of the industry characteristics on the country-corporate rating correlation derives from the global perspective. In fact, country rating has an impact on the corporate sector at the global level, no matter to which sector of activity the company belongs to. The topic of this case-study is related to the one of Cavallo and Valenzuela (2007) and also to the one of Huang and Kong (2003) who studied the relationship between corporate and sovereign spreads having as reference corporate default premium limited to the case of publicly traded firms.

This study is more closed to the work of Borensztein who analyzed this correlation at the level of the credit-rating, but we propose to be more analytical in terms of rationale grounding financial indicators which contribute to the assignment of the final corporate rating; afterwards corporate rating will be deeply correlated with country rating. The deep analysis will be performed in terms of principles governing

the selection of certain financial indicators which should be integrated in a final score function by which a credit-rating will be assigned to the companies.

The corresponding corporate rating will be delivered by a scoring function which will be elaborated using Principal Components Analysis. The countries where the companies are located into are both emerging (Poland, Hungary, Romania, Slovenia, Slovakia) and developed (France, USA, Germany, Italy, Austria) ones.

The sources where the information was obtained from were the following:

- Hewlett-Packard Division containing information extracted from Financial Statements of companies located both in emerging and developed countries;
- Bloomberg agency site which containing information on country rating.

The assembly of financial indicators that will be analyzed is the following: Current Liquidity ratio (I1), Quick Liquidity ratio (I2), Short Term Debt Cash-Flow Coverage (I3), Return on Tangible Net Worth (I4), Earnings before Taxes/Total Assets (I5), Operating Expenses/Net Sales (I6), Debt/Tangible Net Worth (I7), Interest Coverage (I8), Short Term Debt/Total Debt (I9), Leverage multiplier (I10), Accounts Receivables turnover (I11), Accounts Payables turnover (I12), Working Capital Turnover (I13), Total Assets Turnover (I14), Altman Z-score (I15).

The initial point of the analysis focuses on a comparative analysis of financial indicators in terms of descriptive statistics characterizing companies located into emerging and developed countries. First companies are analyzed at the global level, including the whole sample of companies, out of a potential influence of the country rating. Second, the sample of companies is divided into two sub-samples: one including companies located into emerging countries and the other one including companies located into developed countries.

Proceeding with the comparative analysis, it is obvious that descriptive statistics of companies grouped at the general level are less favourable than descriptive statistics of companies located into developed countries (see Annexes no.1 and 2). Median corresponding to the Current Liquidity Ratio is 1.3 at the global level while in case of developed countries is 1.45 and 1.23 in case of developing countries.

The minimum level corresponding to the interest coverage ratio is -5.44 at the global level which is similar to the level relative to the emerging countries; the minimum level for developed countries is -1.56 (see Annexes 2 and 3).

The maximum level for the weight of the short term debt into the total debt (I9) is 100 at the global and developed countries level and 41.61 in case of emerging countries. It is obvious that most of the companies located into emerging countries had adopted financing structures based on long term debt since a higher weight of short term debt into the total debt will make them being perceived as riskier. The financial effort implied by the long term debt is considered to be softer than the one implied by the short term debt.

The standard deviations corresponding to the financial indicators of companies located in emerging countries are to a high extent superior to the standard deviations of the financial indicators corresponding to companies located in developed countries. The instability conferred by the macroeconomic environment is dominant in the case of the emerging countries. The variance corresponding to the leverage multiplier is 57.23

in case of emerging countries, 4.19 in case of developed countries and 47.24 at the general level. The Altman Z-score has the highest variance (-3.341) at the global level and 4.761 at the level of the emerging countries; as for developed countries, the variable amounts to 0.52.

The minimum values corresponding to all financial indicators are recorded in case of emerging countries while maximum values are recorded in case of developed countries. From this perspective, we can assume that macroeconomic environment had a strong impact on corporate rating; macroeconomic volatility implied by emerging countries environment affects the evolution of the financial variables.

2.2. Scoring functions elaboration

The next step of the analysis focuses on elaborating a scoring function in accordance with which there will be delivered a rating to every company included in the sample. There will be elaborated two scoring functions using the Principal Components Method adapted to companies located in both developed and emerging countries.

In order to elaborate the two scoring functions, there will be analyzed the correlation matrices of the financial indicators characteristic to the companies located in both emerging and developed countries. It is obvious that variables correlation degree is higher in case of companies located in developed countries than in case of companies located in emerging countries. This phenomenon can be explained by a higher degree of interdependency between the financial indicators due to the lack of dominant influences from the part of external factors.

In order to get a deeper insight into the most important financial indicators which should be integrated into a final scoring function, the Eigenvalues are computed (see Annex no.4). As for companies located into both emerging and developed countries, the final scoring function should contain 5 main financial indicators. If we had limited to only 3 variables, we would be able to reflect only 58% of the initial information. Extending the analysis to 4 axes, we would reach 67.01% while 5 axes permit an information recovery of 74.19% of the initial space.

In order to identify which are the most important factors that are to be integrated into a final scoring function, we apply a factor loading procedure for both cases (see Annexes no.5 and 6).

Thus, the first axis is highly positively correlated with the same financial indicators for both cases of companies located in emerging as well as for companies located in developed countries. It represents a synthesis of I5, I11, I12, I14, I15, meaning the asset management and profitability indicators. The second axis represents a synthesis of I7, I10, I13 (solvency ratios) in case of emerging countries and of I6 (Operating Expenses reported to Net Sales indicator) in case of developed countries.

The third axis represents a synthesis of I2 and I9 (liquidity and solvency ratios) in case of emerging countries and of I1, I2 and I4 in case of developed countries (liquidity and profitability ratios).

The fourth axis represents a synthesis of I8 (interest coverage ratio) in case of emerging countries and of I7, I10 I13 in case of developed countries (solvency and asset management dynamics indicators).

The fifth second axis represents a synthesis of I4 (profitability indicator) in case of emerging countries and of I3, I8 (solvency indicators) in case of developed countries. It is obvious that the most important financial indicators characteristic to the emerging countries focus on the solvency and liquidity ratios while the most important financial indicators specific to the developed countries are based on profitability.

The analysis of factor score coefficients procedure (see Annexes no.7 and 8) applied in both cases conducts to the elaboration of the final scoring function. As for companies located into emerging countries, the scoring function in accordance with which the rating is assigned consists of:

$$\text{Rtg CEC} = 0.2 * I5 + 0.4 * I7 - 0.44 * I2 + 0.27 * I9 - 0.75 * I8 + 0.42 * I4 \quad (1)$$

where:

Rtg CEC = corporate rating assigned to companies located into emerging countries

I5 = Earnings before Taxes/Total Assets

I7 = Debt/Tangible Net Worth

I2 = Quick Liquidity ratio

I9 = Short Term Debt/Total Debt

I8 = Interest Coverage

I4 = Return on Tangible Net Worth

As for the companies located into developed countries, the scoring function in accordance with which the rating is assigned consists of:

$$\text{Rtg CDC} = 0.2 * I5 + 0.48 * I6 + 0.16 * I1 + 0.38 * I7 - 0.73 * I3 \quad (2)$$

where:

Rtg CDC = corporate rating assigned to companies located into developed countries

I5 = Earnings before Taxes/Total Assets

I6 = Operating Expenses/Net Sales

I1 = Current Liquidity ratio

I7 = Debt/Tangible Net Worth

I3 = Short Term Debt Cash-Flow Coverage

The two scoring functions contain two common indicators - I2 and I7 (liquidity and solvency ratios) while the other ones are different. The scoring function relative to companies located into emerging countries focuses on solvency and liquidity ratios while the second one, relative to companies located into developed countries, is more concentrated on profitability and asset management dynamics indicators. In order to get a deeper insight regarding the potential impact of the country rating on the final corporate rating, there has been performed Granger test.

The Probability associated with the Null Hypothesis slightly exceeds the value of 0.5 which does not permit drawing a clear conclusion - rejecting or accepting the

null hypothesis-, but based on the previous analysis, the relationship at the level of the variables is validated.

3. CONCLUSIONS ON CORPORATE-COUNTRY RATING

This section focused on the corporate rating perceived not only as an idiosyncratic variable, but also as an indicator anchored in macroeconomic fundamentals, from the perspective of the deep correlation with the country rating.

Deep comparative analysis of the descriptive statistics as well as the Granger Causality test has been performed. The overall conclusion subscribes to the influence resulting from country rating towards corporate rating. The most important financial indicators specific to the companies based in emerging countries were characterized by higher volatility and low values in comparison with companies located in developed countries. Moreover, financial indicators characteristic to companies based in emerging countries focused on liquidity and solvency while profitability and asset management indicators were specific to companies located in developed countries.

The impact of country rating on corporate rating is to be considered as an important element for financial leverage management performed at the level of companies located into emerging countries which have to implement more active strategies, adapted not only to the challenges implied by the internal corporate environment reflected into the idiosyncratic risk, but also to the macroeconomic dimension. Thus, financial management strategies have to be multidimensional, oriented towards the systemic risk as well.

4. ACKNOWLEDGEMENTS

This paper is part of the research grant PN2 - IDEI/2008 - *The analysis of the economic and financial risk characteristic to companies located in CEE countries: impact on the finance making-up decision process*, code 1795, provided by CNCSIS-UEFISCU. The remaining errors are ours.

REFERENCES:

- [1]. Dwyer, D. (2007) *Expected Default Frequency Enhancements*, New York: Moody's KMV, www.moody's.com/whitepapers
- [2]. Elizalde, A. (2005a) *Credit Risk Models I: Default Correlation in Intensity Models*, www.abelizalde.com
- [3]. Elizalde, A. (2005b) *Credit Risk Models II: Structural Models*, www.abelizalde.com
- [4]. Elizalde, A. (2006) *Credit Risk Models III: Reconciliation Reduced-Structural Models*, www.abelizalde.com
- [5]. Ericsson, J.; Reneby, J. (2005) *Can Structural Models Price Default Risk: Evidence from Bond and Credit Derivative Market*, McGill University Press
- [6]. Ferri, G. (2002) *Do Global Credit Rating Agencies Think Globally?* *Journal of Banking and Finance*, 25(1), pp.115-148
- [7]. Galytskyy, D. (2006) *Does the rule of sovereign ceiling hold for the CIS countries?* <http://papers.ssrn.com>

- [8]. **Goh, J.; Ederington, L.** (1993) *Is a bond rating downgrade good news, bad news or no news for stockholders?* Journal of Finance, 48, pp.2001-2008
- [9]. **Griffin, P.; Savicente, A.** (1982) *Common stock returns and rating changes: A methodological comparison*, Journal of Finance, 37, pp.103-119
- [10]. **Hackbarth, D.; Miao, J.; Morellec, E.** (2004) *Capital Structure, Credit-Risk and Macroeconomic Conditions*, HEC University Press, <http://papers.ssrn.com>
- [11]. **Hochrainer, S.** (2006) *Financial natural disaster risk management for developing countries*, International Institute for Applied Systems Analysis Press, <http://papers.ssrn.com>
- [12]. **Holthausen, R.** (1986) *The effect of bond rating changes on common stock prices*, Journal of Financial Economics, 17, pp.57-90
- [13]. **Peter, M.; Grandes, M.** (2006) *How important is sovereign risk in determining corporate default premia?*, International Monetary Fund Press, www.imf.org.com/research
- [14]. **Rocha, K.; Garcia, A.** (2004) *Term Structure of Sovereign Spreads in Emerging Markets - A Calibration Approach for Structural Model* - IPEA Press, Brazil, <http://papers.ssrn.com>
- [15]. **Saretto, A.** (2004) *Predicting and Pricing the Probability of Default*, UCLA Press, <http://papers.ssrn.com>

Annex 1. Descriptive statistics of the corporate rating at the global level, for companies located both in emerging and developed countries

Descriptive Statistics	Confid.		95 Sum	Minimum	Maximum	Variance	Std.Dev.	Standard Error	Skewness	Std.Err.	Kurtosis	Std.Err.	
	Mean	-95.00%											
VAR1	1.30	1.21	1.39	94.84	0.34	2.40	0.15	0.38	0.04	0.67	0.28	0.87	0.56
VAR2	0.79	0.69	0.89	57.64	0.00	2.35	0.18	0.43	0.05	0.93	0.28	2.50	0.56
VAR3	1.36	-1.37	4.08	98.98	-1.01	99.62	136.03	11.66	1.37	8.54	0.28	72.94	0.56
VAR4	33.72	24.80	42.63	2461.34	-95.77	151.24	1460.95	38.22	4.47	-0.39	0.28	3.49	0.56
VAR5	29.34	-0.24	58.92	2141.83	-4.91	822.00	16069.29	126.76	14.84	5.90	0.28	34.11	0.56
VAR6	16.44	12.02	20.87	1200.33	-1.05	112.47	359.72	18.97	2.22	2.20	0.28	7.73	0.56
VAR7	10.18	6.03	14.33	743.07	-7.24	122.69	316.96	17.80	2.08	4.20	0.28	22.59	0.56
VAR8	4.10	1.12	7.09	299.64	-5.44	100.00	163.33	12.78	1.50	6.41	0.28	45.90	0.56
VAR9	79.52	73.32	85.73	5805.16	20.46	100.00	707.17	26.59	3.11	-0.99	0.28	-0.66	0.56
VAR10	6.59	4.99	8.19	481.11	-6.24	43.21	47.25	6.87	0.80	3.37	0.28	15.48	0.56
NEWVAR11	19.76	-4.66	44.18	1442.38	0.00	900.66	10957.63	104.68	12.25	8.51	0.28	72.58	0.56
NEWVAR12	11.42	3.28	19.56	833.68	0.00	293.30	1215.89	34.87	4.08	7.61	0.28	61.44	0.56
NEWVAR13	21.29	-0.78	43.35	1554.04	-634.80	361.50	8943.23	94.57	11.07	-3.94	0.28	34.60	0.56
NEWVAR14	8.93	-3.74	21.60	660.67	0.00	472.82	2990.84	54.69	6.36	8.59	0.28	73.87	0.55
NEWVAR15	10.11	-3.37	23.60	738.24	0.03	497.00	3341.50	57.81	6.77	8.53	0.28	72.85	0.56

Source: own computations

Annex 2. Descriptive statistics of the corporate rating for companies located in developed countries

Descriptive Statistics													
	Mean	Confid. -95.00%	Confid. 95 Sum	Minimum	Maximum	Variance	Std.Dev.	Standard Error	Skewness	Std.Err. Skewness	Kurtosis	Std.Err. Kurtosis	
VAR1	1.45	1.23	1.68	31.99	0.34	2.40	0.27	0.52	0.11	-0.21	0.49	-0.17	0.95
VAR2	0.69	0.41	0.97	15.19	0.00	2.35	0.40	0.64	0.14	1.13	0.49	0.91	0.95
VAR3	0.06	-0.09	0.21	1.33	-0.04	1.60	0.12	0.34	0.07	4.67	0.49	21.87	0.95
VAR4	30.07	6.51	53.62	661.45	-95.77	151.24	2821.85	53.12	11.33	-0.79	0.49	2.42	0.95
VAR5	4.22	1.18	7.27	92.93	-4.91	23.88	47.17	6.87	1.46	1.92	0.49	4.39	0.95
VAR6	34.20	24.65	43.75	752.40	-0.78	112.47	463.78	21.54	4.59	2.17	0.49	8.19	0.95
VAR7	22.60	10.98	34.22	497.20	0.49	122.69	686.95	26.21	5.59	2.99	0.49	10.42	0.95
VAR8	5.85	-3.52	15.22	128.74	-1.56	100.00	446.71	21.14	4.51	4.61	0.49	21.49	0.95
VAR9	45.61	36.50	54.72	1003.46	20.46	98.81	422.28	20.55	4.38	1.25	0.49	1.11	0.95
VAR10	8.92	7.06	10.78	196.22	1.38	17.18	17.58	4.19	0.89	0.09	0.49	0.42	0.95
NEWVAR11	6.39	4.22	8.57	140.66	0.00	13.67	24.09	4.91	1.05	0.27	0.49	-1.63	0.95
NEWVAR12	4.32	3.16	5.47	94.94	0.00	8.86	6.75	2.60	0.55	0.39	0.49	-0.78	0.95
NEWVAR13	11.04	0.75	21.33	242.87	0.00	96.71	538.97	23.22	4.95	3.14	0.49	9.77	0.95
NEWVAR14	0.54	0.40	0.68	11.91	0.00	1.26	0.10	0.32	0.07	0.37	0.49	-0.50	0.95
NEWVAR15	1.17	0.85	1.50	25.84	0.03	3.46	0.52	0.72	0.15	2.03	0.49	4.98	0.95

Source: own computations

Annex 3. Descriptive statistics of the corporate rating for companies located in emerging countries

Descriptive Statistics													
	Mean	Confid. -95.00%	Confid. 95 Sum	Minimum	Maximum	Variance	Std.Dev.	Standard Error	Skewness	Std.Err. Skewness	Kurtosis	Std.Err. Kurtosis	
VAR1	1.23	1.15	1.31	62.85	0.71	2.25	0.08	0.29	0.04	1.16	0.33	2.41	0.66
VAR2	0.83	0.75	0.92	42.45	0.11	1.95	0.09	0.30	0.04	1.25	0.33	4.32	0.66
VAR3	1.91	-2.01	5.84	97.65	-1.01	99.62	194.77	13.96	1.95	7.14	0.33	50.98	0.66
VAR4	35.29	26.81	43.78	1799.89	-13.22	131.92	910.20	30.17	4.22	0.89	0.33	0.88	0.66
VAR5	40.17	-2.22	82.57	2048.90	-4.65	822.00	22722.67	150.74	21.11	4.90	0.33	23.07	0.66
VAR6	8.78	5.64	11.92	447.93	-1.05	49.60	124.62	11.16	1.56	2.44	0.33	5.65	0.66
VAR7	4.82	2.46	7.19	245.87	-7.24	45.58	70.74	8.41	1.18	4.10	0.33	18.18	0.66
VAR8	3.35	1.45	5.25	170.90	-5.44	41.61	45.65	6.76	0.95	4.14	0.33	21.08	0.66
VAR9	94.15	91.11	97.19	4801.70	49.20	100.00	116.72	10.80	1.51	-2.68	0.33	7.32	0.66
VAR10	5.59	3.46	7.71	284.89	-6.24	43.21	57.24	7.57	1.06	3.96	0.33	17.69	0.66
NEWVAR11	25.52	-9.67	60.72	1301.72	2.02	900.66	15656.38	125.13	17.52	7.12	0.33	50.77	0.66
NEWVAR12	14.49	2.83	26.14	738.74	1.43	293.30	1716.25	41.43	5.80	6.39	0.33	43.14	0.66
NEWVAR13	25.71	-5.84	57.26	1311.17	-634.80	361.50	12585.72	112.19	15.71	-3.57	0.33	25.87	0.66
NEWVAR14	12.64	-5.84	31.13	644.83	1.20	472.82	4321.05	65.73	9.20	7.14	0.33	50.97	0.66
NEWVAR15	13.97	-5.44	33.38	712.40	1.94	497.00	4761.22	69.00	9.66	7.14	0.33	50.97	0.66

Source: own computations

Annex 4. Eigenvalues of the financial indicators characteristic to companies located into emerging countries

Eigenvalues				
Extraction: Principal components				
	Eigenval	% total Variance	Cumul. Eigenval	Cumul. %
1	4.86	32.40	4.86	32.40
2	2.43	16.18	7.29	48.59
3	2.13	14.22	9.42	62.81
4	1.33	8.85	10.75	71.66
5	1.06	7.07	11.81	78.73

Eigenvalues of the financial indicators characteristic to companies located into developed countries

Eigenvalues				
Extraction: Principal components				
	Eigenval	% total Variance	Cumul. Eigenval	Cumul. %
1	4.59	30.57	4.59	30.57
2	2.30	15.34	6.89	45.90
3	1.78	11.89	8.67	57.79
4	1.40	9.32	10.07	67.10
5	1.06	7.09	11.13	74.19

Source: own computations

Annex 5. Factor loading procedure applied to the case of companies located into emerging countries

Factor Loadings (Varimax normalized) (emerging.sta)					
Extraction: Principal components					
(Marked loadings are > .700000)					
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
VAR1	-0.06	-0.14	-0.88	0.19	0.15
VAR2	-0.02	0.06	-0.93	0.03	0.07
VAR3	0.01	-0.08	-0.02	0.37	0.05
VAR4	-0.08	0.37	-0.09	-0.28	0.73
VAR5	0.78	-0.03	0.04	-0.01	0.08
VAR6	0.47	0.07	0.01	-0.42	-0.61
VAR7	0.00	0.93	0.02	0.02	0.20
VAR8	-0.05	-0.17	0.01	-0.85	0.15
VAR9	0.06	-0.07	0.70	0.28	0.43
VAR10	0.01	0.95	0.02	0.02	0.19
NEWVAR11	0.97	0.05	0.04	0.00	-0.13
NEWVAR12	0.98	0.02	0.02	0.07	-0.06
NEWVAR13	0.11	0.60	-0.01	-0.07	-0.35
NEWVAR14	0.98	0.05	0.03	0.00	-0.12
NEWVAR15	0.98	0.05	0.03	0.00	-0.12
Expl.Var	4.67	2.35	2.15	1.25	1.40
Prp.Totl	0.31	0.16	0.14	0.08	0.09

Source: own computations

Annex 6. Factor loading procedure applied at the level of companies located into developed countries

Factor Loadings (Varimax normalized) (developped 2007.sta)					
Extraction: Principal components					
(Marked loadings are > .700000)					
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
VAR1	-0.056	0.241	-0.839	-0.122	-0.108
VAR2	0.022	-0.185	-0.764	0.044	0.290
VAR3	0.003	-0.145	-0.080	-0.126	0.532
VAR4	-0.068	-0.098	-0.544	0.370	-0.250
VAR5	0.771	-0.073	0.006	-0.005	-0.049
VAR6	0.158	0.845	0.332	0.004	-0.040
VAR7	-0.078	0.340	-0.148	0.740	0.048
VAR8	-0.014	-0.163	-0.107	-0.188	-0.788
VAR9	0.112	-0.886	0.284	-0.152	0.002
VAR10	-0.023	0.101	-0.092	0.892	0.027
NEWVAR11	0.982	0.056	0.053	0.029	0.004
NEWVAR12	0.981	-0.027	0.008	0.018	0.066
NEWVAR13	0.176	-0.165	0.148	0.525	-0.031
NEWVAR14	0.983	0.038	0.046	0.032	0.019
NEWVAR15	0.984	0.037	0.042	0.029	0.015
Expl.Var	4.538	1.812	1.853	1.851	1.075
Prp.Totl	0.303	0.121	0.124	0.123	0.072

Source: own computations

Annex 7. Factor score coefficients procedure applied to the case of companies located into developed countries

Factor Score Coefficients (developped 2007.sta)					
Rotation: Varimax normalized					
Extraction: Principal components					
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
VAR1	0,028100	0,158033387	-0,47699067	-0,16175	-0,0829
VAR2	0,032351	-0,10209908	-0,42665502	-0,02462	0,275963
VAR3	-0,00309	-0,06076668	-0,06015703	-0,08041	0,500489
VAR4	0,006705	-0,09914599	-0,26761162	0,190575	-0,23907
VAR5	0,173555	-0,04149843	-0,02954401	-0,004300	-0,05983
VAR6	0,022271	0,482981542	0,172967483	-0,07144	-0,03338
VAR7	-0,02338	0,110736952	-0,02274822	0,374806	0,027273
VAR8	0,017749	-0,08166680	-0,06337233	-0,07107	-0,72974
VAR9	0,014269	-0,49418067	0,148668605	0,037135	-0,00982
VAR10	-0,01579	-0,04570330	0,020245606	0,494813	-0,00202
NEWVAR11	0,217375	0,029526125	-0,01119303	-0,00105	-0,014100
NEWVAR12	0,218166	-0,01622239	-0,03749276	-0,00332	0,043597
NEWVAR13	0,025044	-0,15795037	0,119043008	0,332146	-0,05389
NEWVAR14	0,217758	0,01865176	-0,01520904	0,001375	-0,00012
NEWVAR15	0,218141	0,018585372	-0,01747767	-0,0004	-0,00373

Source: own computations

Annex 8. Factor score coefficients procedure applied to the case of companies located into emerging countries

Factor Score Coefficients (emerging.sta)					
Rotation: Varimax raw					
Extraction: Principal components					
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
VAR1	0.033	-0.045	-0.436	0.068	0.143
VAR2	0.028	0.031	-0.445	-0.013	0.032
VAR3	0.015	-0.031	-0.035	0.272	0.117
VAR4	0.048	0.191	-0.091	-0.434	0.419
VAR5	0.191	-0.019	-0.026	-0.078	0.168
VAR6	0.037	-0.007	0.062	-0.139	-0.482
VAR7	-0.007	0.395	0.006	0.046	-0.011
VAR8	-0.001	-0.060	0.027	-0.745	-0.017
VAR9	0.048	-0.012	0.271	0.080	0.408
VAR10	-0.007	0.401	0.008	0.051	-0.019
NEWVAR11	0.212	-0.001	-0.012	-0.006	0.025
NEWVAR12	0.222	-0.007	-0.030	0.028	0.091
NEWVAR13	-0.032	0.231	0.038	0.123	-0.365
NEWVAR14	0.213	0.000	-0.016	-0.002	0.029
NEWVAR15	0.213	0.000	-0.018	-0.005	0.030

Source: own computations

APPRECIATIVE INTELLIGENCE AND ITS INFLUENCE ON ROMANIAN MANAGERS' BEHAVIOUR

**MIRELA BUCUREAN,
MĂDĂLINA-ADRIANA COSTIN ***

ABSTRACT: *Appreciative intelligence is a process that allows successful managers to realize their innovative and creative ideas, achieving realistic goals by using the ability to identify the positive potential of actions and take advantage of them. The main characteristic of a manager, in order to obtain organizational welfare is to have the ability to discover the hidden aspects of any situation and to share them with his employees, investors, partners and colleagues. In this paper we will present the result of a questionnaire that we applied on a number of ten Romanian managers, five from Bihor County and five from Cluj County, in order to find out if they heard about appreciative intelligence and if they consider it important for the organizational development.*

KEY WORDS: *appreciative intelligence, managers, organization, positive, qualities*

JEL CLASIFICATION: *M 14*

1. INTRODUCTION

Appreciative intelligence is an inspiring and practical account of how to develop the capacity to see potential within the present and to develop this capacity within oneself and in others. Appreciative intelligence is a concept that opens new possibilities for seeing how people and organizations create value and achieve success.

Putting it in a simple way, appreciative intelligence is the ability to see the mighty oak in the acorn. Is the ability to see a revolutionary product, a top talent or a solution that will be valuable in future, although they are now all hidden by their current situation. Appreciative intelligence offers another perspective of what it means to be smart and intelligent.

* *Senior Lecturer Ph.D., University of Oradea, Romania, mbucurean@uoradea.ro
Assist. Prof., University of Oradea, Romania, mcostin@uoradea.ro*

Managers with a high level of appreciative intelligence are able to recognize the role of external factors and the environments in their daily activities, and also they can immediately see how present actions connect directly to the future. They have the unique ability to see how positive aspects of the current state could be directly applied in order to achieve goals in the best way.

2. THE COMPONENTS OF APPRECIATIVE INTELLIGENCE

There are three important components of appreciative intelligence that Romanian managers can use in order to promote creativity and innovation within their companies:

- Reframing the organizational assessment
- Taking into consideration the positive elements of any situation
- Seeing the way in which future will be affected starting from the present

Reframing the organizational assessment

The first component of appreciative intelligence refers to the way in which managers can perceive, see, interpret and evaluate the current organizational situation. Reframing represents the process by which a manager intentionally sees a certain part of a situation, object, person, context or scenario. By doing this, a manager is faced with several options. They may tend to pay more attention to a stimulus and at least for some moments, ignore the others.

Using appreciative intelligence, the manager, consciously or unconsciously redefines the problem currently facing, thereby passing a new vision of reality, which will lead to a new product.

Taking into consideration the positive elements of any situation

Successful managers have a conscious or unconscious ability to see the reality of everyday events, situations, obstacles, products and people in a favorable way. Because they redefine everything to see only the positive, they often find talents or potential that others might overlook.

Seeing the way in which future will be affected starting from the present

Managers with a high level of appreciative intelligence make connections between generative aspects of the present and desired final goal, seeing how this evolves in the future. Many managers have the ability to redefine problems and to appreciate the positive. However, if they can't see the concrete ways in which present possibilities could be used, they have no chance to develop their appreciative intelligence.

3. THE POSITIVE INFLUENCE OF APPRECIATIVE INTELLIGENCE ON ORGANIZATIONS

3.1 The influence of appreciative intelligence on managers and their actions

When a manager is able to see how present situations can influence the future, they will definitely know how to change the future in their benefit. The process of seeing problems differently, by appreciating only the positive aspects consistently led to the following four qualities:

- Persistence
- Conviction that one's action matter
- Tolerance for uncertainty
- The ability to recover in difficult situations

Graphically, the four qualities generated by a high level of appreciative intelligence can be presented in the following way:

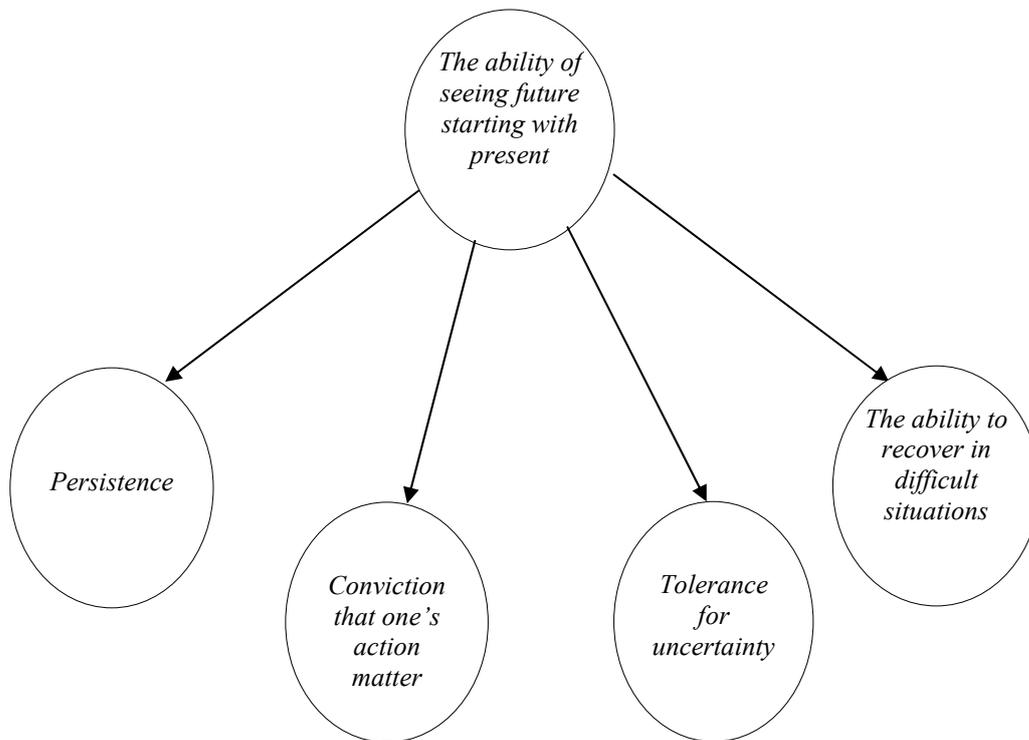


Figure 1. The four qualities generated by appreciative intelligence

Persistence

Persistence is influenced by the self-esteem of managers. That's why, managers with high self-esteem have a greater tendency to persist in the face of failure and obstacles. They're also more likely to see the presence of alternatives, even when faced with failure and they know when to quit and look for alternatives.

Conviction that one's action matter

Managers believe that all their actions, proposals and decisions will take them to a successful result because of their ability of seeing the end goal. That's why they take on more challenging tasks and recover quickly after unexpected failure. When managers with strong conviction in their abilities fail due to their insufficient knowledge they try harder after acquiring the knowledge they believe is necessary for success.

Tolerance for uncertainty

The capacity of tolerating uncertainty can be an important aid for managers in order to cope with new and risky situations. But it is not enough that only managers tolerate uncertain situations. For the organization's benefit, they need to help their employees to do the same, by redefining the situation in a way that they can take into consideration only the positive aspects and see how the future unfolds from the present.

The ability to recover in difficult situations

Managers with high level of appreciative intelligence perceive that a positive consequence could be built even from the most drastic or devastating circumstances. Managers who have the ability to recover when facing with difficult situations are perceptive, intuitive and opened to new experiences. These are factors that allow those with appreciative intelligence to find and pursue solutions that have not been tried before them.

3.2 Appreciative intelligence's influence on Romanian organizations

We applied a questionnaire on ten Romanian managers in order to find out if they heard about appreciative intelligence, if they use appreciative intelligence in their daily work and if they consider it an important skill for any person. In the questionnaire, managers had to answer some questions by choosing "yes" or "no". After processing the data, we can present the following results:

No.	Question	Number of managers who responded "YES"	Number of managers who responded "NO"
1.	Do you consider that appreciative intelligence represents a real help in manager's daily activity?	9	1
2.	Do you use appreciative intelligence when confronting with difficult situations?	9	1
3.	Do you know consider that self perception and intuition are components of appreciative intelligence?	8	2
4.	Do you find yourself in at least one of the qualities generate by a high level of appreciative intelligence?	10	0

5.	Do you try to create a favourable appreciative intelligence climate for your employees?	10	0
6.	Do you allow your employees to express their own ideas regarding the organizational activities?	10	0
7.	Do you take into consideration their proposals?	10	0
8.	Have you ever thought that because of an employee's appreciative intelligence the organization can become more successful?	3	7
9.	Do you consider that only managers can have a high level of appreciative intelligence in an organization?	3	7
10.	Do you think that appreciative intelligence can change the future in a good way?	10	0
11.	In your opinion, appreciative intelligence can be learned?	5	5
12.	Do you promote practices or programs to discover hidden talents and skills of your employees?	9	1
13.	Did you ever face a difficult situation that seemed to be impossible to cope with, but after reframing the context transformed into a simple one?	10	0
14.	Do you share with your employees the difficult organizational problems?	9	1
15.	After finding out what appreciative intelligence means do you consider that organizational success depends on appreciative intelligence?	10	0
16.	Would you like to attend some special courses in order to develop your appreciative intelligence?	10	0
17.	Did you ever read/hear about the advantages of using appreciative intelligence within organizations?	3	7
18.	Do you consider that you have a high level of appreciative intelligence?	3	7
19.	Do you consider that a manager with a high level of appreciative intelligence can influence the employees to act or think in the same way that he/she does?	10	0
20.	Do you agree that all managers use, consciously or unconsciously appreciative intelligence?	10	0
21.	Is there a relation between emotional intelligence and appreciative intelligence in your opinion?	10	0
22.	Do you know exactly how and when to use appreciative intelligence?	9	1
23.	Is appreciative intelligence useful when you want to implement a change?	10	0
24.	Did you try to influence your employee's attitude concerning change by using appreciative intelligence?	9	1
25.	Do you agree that about fifty percent of a company's success is due to the manager's behaviour, attitudes and decisions?	10	0

As we can see, most of the Romanian managers heard about the concept of “appreciative intelligence and they mentioned that they use it almost every time, consciously or unconsciously.

Five of the Romanian managers considered that appreciative intelligence is something that you born with. It is true that some managers seem to be born with a lot of appreciative intelligence and started to enjoy the benefits of their power to invent, to innovate, create and succeed at an early age. All people have appreciative intelligence, but one can have it more highly developed, others develop it gradually, through various practices without even realizing. Identification, cultivation and growth of appreciative intelligence at a personal level, and its use in practice, can lead to a great advantage. Characteristics, values, concepts such as creativity, knowledge and credibility are intangible, but they influence our lives, organizations and environment in which we live.

Although appreciative intelligence is an individual skill, it substantially affects groups and organizations because they are composed of individuals. Within organizations, implementation of appreciative intelligence can lead to competitive advantage: creative solutions, new products, ability to achieve its objectives, a better working environment, which enables people in the organization, be more productive and better organized. All these issues affect the organization's financial results.

By their behaviour, managers create an organizational climate, which in turn, encourage others to consider similar initiatives and actions. These behaviours become norms over time, common people's beliefs about behaviour, values and attitudes. Once these rules have been developed and employees began to adopt a behaviour according to them, resulting styles of action are those of organizational culture. Through this process, managers build, intentionally or not, a culture that will transmit their appreciative intelligence to others.

Appreciative intelligence can be expressed by a positive inducement that can be helpful in moments of doubt or when the progress must highlighted, especially when employees begin to have difficulty or doubt concerning their own work capacities.

4. CONCLUSIONS AND RECOMMENDATIONS

Once managers understand the organizational profile, know how it has to evolve in the future, they may initiate a change in the organization, helping the employees to raise the level of appreciative intelligence and changing organizational culture. Appreciative intelligence does not develop overnight, and influencing the behaviour of other people requires time and effort. Managers can help others to create their own expectations by sharing their own positive vision of things and by focusing on their potential. By using appreciative intelligence in their work, organizations are able to build a culture which will enhance and perpetuate the cases of success and innovation.

In order to use and promote appreciative intelligence within the organization, Romanian managers should:

- Teach their employees to appreciate only the positive aspects of any situation;
- Think that in every difficult situation there is always something good;
- Think that only with persistence they will obtain success;
- Now in what way their decisions, acts, proposals will affect the future;
- Talk and share with other managers all the experiences they went through and where appreciative intelligence had an important role;
- Take challenges in order to demonstrate their ambition;
- Give feedback to employees when they have any kind of proposals regarding organizational activities;
- Discuss with their employees about all the difficult problems that the organization is forced to face with and consider their opinion;
- Create a favourable organizational climate;
- Attend some special courses for continuous development of their appreciative intelligence.

Increasing the level of appreciative intelligence doesn't bring permanent happiness or prevent managers to commit errors or failures. What appreciative intelligence can do is to help discovering new solutions starting from these mistakes, to redefine situations and allow a better view of the future.

Our advice for organizations is to create new sets of questions when selecting employees, when funding innovators and hire only managers who are able to configure and future that they want. The most efficient and successful managers show the ability to perceive reality in a way that reveals positive potential.

Managers with high appreciative intelligence are able to realize that unfolding the future from the present is an important step. They are able to recognize the role of environment or external factors in this process, and they have a unique ability to see how the generative potential of the present connects directly to the future.

REFERENCES:

- [1]. **Dutton, J.** (2006) *Appreciative intelligence, seeing the mighty oak in the acorn*, Harvard Business Review's, [Online], Available at: <http://www.bkconnection.com/static/appreciative-intell-pr.pdf>, [Accessed 23 May 2010]
- [2]. **Long, K.** (2008) *Appreciative intelligence improves youth soccer coaching*, [Online], Available at: <http://kansasreflections.wordpress.com/2010/05/17/appreciative-intelligence-improves-youth-soccer-coaching/>, [Accessed 23 May 2010]
- [3]. **Pellerin, C.** (2008) *Appreciative Intelligence*, [Online], Available at: http://www.leadershipnow.com/leadingblog/2007/04/appreciative_intelligence.html, [Accessed 23 May 2010]
- [4]. **Thatchenkery, T.; Metzker, C.** (2006a) *Appreciative Intelligence*, Barrett- Koehler Publishing House, San Francisco, California
- [5]. **Thatchenkery, T.; Metzker, C.** (2006b) *Appreciative intelligence, seeing the mighty oak in the acorn*, World Business Academy Transformation, Volume 20, Issue 12, [Online], Available at: http://www.mpost.com.br/repositorio/antakarana/parte_1.pdf [Accessed 23 May 2010]

- [6]. **Thatchenkery, T.; Metzker, C.** (2008) *Inteligenta Apiciativa*, Codecs Publishing House, Bucharest
- [7]. **Walsh, D.** (2007) Appreciative intelligence, [Online], Available at: <http://www.thefreelibrary.com/Appreciative+Intelligence.%28Appreciative+Intelligence%3A+Seeing+the...-a0161806842> [Accessed 23 May 2010]
- [8]. **Brudco Entreproses** (2006) *Personal success throught appreciative intelligence*, [Online], Available at: <http://www.writeandpublishyourbook.com/resources/self-publishing-resources/personal-success-through-appreciative-intelligence/>, [Accessed 23 May 2010]

CONTRACT CONSTRUCTION ACTIVITY

**ANTOANETA CLAUDIA BUTUZA,
LOREDANA VALENTINA HEDRE***

ABSTRACT: *This paper presents the main types of contractual arrangements used worldwide in construction: traditional contracts, cost reimbursable type contracts, management contracts and other contractual arrangements such as partnership, offering two-phase, contracts in series and turnkey contracts. Also, based on a comparison of the main types of contractual arrangements a number of recommendations are suggested for choosing the appropriate type of contract construction project to be realized.*

KEY WORD: *type of contract used in construction; cost reimbursable; contracts management*

JEL CLASSIFICATION: *M19*

1. INTRODUCTION

The contract is the legal act done by agreement of wills between the acquiring entity (investor) and contractor (offeror) to perform construction project. For public investment, form of contract is usually one of the conditions of contract submitted by the entity acquiring contractors through the tender documents. In some cases, by the end of the contract it can pass through the following phases:

- form of contract proposed by the acquiring entity and part of tender documents;
- form of contract acceptable to the contractor and the accompanying tender;
- the final form of the contract completed and signed by the parties after the award and negotiation.

The contract consists of the form of contract, general conditions, supplementary and special contract and other documents specified in the form of contract. General conditions of contract are the document available to the contractual

* Lecturer, Ph.D., West University of Timișoara, Romania, antoaneta.butuza@feaa.uvt.ro
Ph.D. Student, Sinergy East Timișoara, Romania, hedreloredana@yahoo.com

parties general principles applicable to contract construction. In all cases, they become part of a contract for construction works.

Additional conditions of contract are contained in the complementary document the general conditions of contract which fixed term contracts of a given specific procurement entity. Special conditions of contract are the complete document or, amended the general conditions and supplementary contract applicable to a particular contractor.

Traditionally, customers turn to architects and engineers design and supervise the execution of construction .In recent years, however, worldwide, for large projects such as power plants, airports, oil refineries and other complex targets like this method proved relatively ineffective. The causes that led to this situation are:

- insufficient skills in the management of the project many contractors with a highly specialized and technological complexity involved in such projects;
- customer inability to adequately define requirements from the outset of the project.

Therefore, we tried using various contractual arrangements to address this situation, including cost-reimbursable type contracts, turnkey contracts, two-stage tendering, contract number and, lately, management contracts or the design and management. If the client assumes the role of project manager, it will create, in most cases, a separate organizational entity will be responsible for designing and building the target. Project Manager will design and build contracts with specialized companies. If the customer does not have sufficient expertise to achieve these contractual arrangements appeal to companies and independent professionals who will handle project management on behalf of the client. This trend is evident in the construction industry has an impact on contractual arrangements used for certain types of projects.

2. TYPES OF CONTRACTS

The main types of contracts used in construction can be grouped into four categories. In chronological order of their appearance, they are:

- Traditional Contracts
- Cost reimbursable type contracts
- Other forms of contractual arrangements
- Contracts Management

1.2.1. Traditional Contracts

Customers or their managers undertake project architects to prepare the technical design, selecting contractors and overseeing works. The main traditional forms of contracts are:

- a) Total price type contract
- b) Contract price type of work quantities
- c) Unit price type contract
- a) Total price type contract

Contractor is invited to prepare drawings based on supply and specifications for construction projects. Contractor shall assess all costs arising from implementation of the ongoing work. Usually no changes are allowed after the conclusion of the contract total price offered unless the customer requests changes to the project. Price may be divided on the execution phase to facilitate payment by installment of work.

b) Contract price type of work quantities

In some countries, customers prefer to provide a document type contractors to submit prices - demand. It shall be based on drawings and includes chapters work to be done, a brief description and quantities involved. Contractor shall complete with unit prices each chapter of work including labor costs, materials, equipment, administrative expenses, pay subcontractors and profits. Weighting quantities and unit prices for works by summing the results to obtain price - bid. During the work, the actual quantities of work are measured and valued at the price set. Additional work required will be assessed at a new price and / or taking into account the fixed unit prices for similar works.

c) Unit price type contract

Many projects are so complex that they allow complete design before tendering for the award of construction works. In these circumstances, bidders are required to submit unit prices for a list of categories of works typical project work to be done. To substantiate the contractors prices are given preliminary drawings for execution and some geological studies, together with approximate quantities of work. Pay the contractor for work actually performed is based on their measurements and their evaluation at agreed unit prices. Categories of works which were not included in the list provided bidders, renegotiating prices.

1.2.2. Cost reimbursable type contracts

As with standard contracts, the customer calls to technical architects for the project execution and construction supervision. The main feature of these contracts is a fee, a fixed amount or a percentage of direct costs carrying out the work of the contractor. Direct costs of work will be reimbursed as the contractor's work performance.

This type of contract was created to allow for construction works as advance planning work. The main disadvantage of this type of contract is that the entrepreneur can increase the direct costs of work almost without restrictions thus transferring most of the risks to the client. The main forms of cost-reimbursable type contracts are:

- a) Fee contract with a fixed amount or percentage
- b) Cost-target type contract

a) Fee contract with a fixed amount or percentage

Contractor and client negotiate a fee to cover administrative costs and contractor profits. Direct costs related to payroll, subcontractors, purchasing materials, insurance and operation of equipment are paid the client as the execution of works . Therefore, the customer will ultimately pay the direct costs plus contractor's fee. If the fee is calculated as a percentage of direct costs, then the risks assumed by customers and grow more for that fee will increase the growth of direct costs.

b) Cost-target type contract

To remove disadvantages fee contract with classic customers have sought to find a way to increase contractor accountability on project costs. The solution is to establish a correlation between the fee paid to the contractor and cost - the target agreed based on a set of drawings of drawings and specifications. Fee paid shall be initially decreasing or increasing the amount determined by the percentage of excess or economy achieved calculated by the difference between actual cost and cost - of the work target. Take account of changes requested by the client during the execution of works.

1.2.3. Other forms of contractual arrangements

In this category we can include:

a) Partnership

Partnership is the customer selecting a particular contractor, negotiate a price for work to be done, and agreeing to program execution and contract terms and conditions. The main objective is to generate mutually beneficial cooperation between contractor and client. Contractor is encouraged to discuss openly all aspects of client problems in the project. Contractor - partner may be engaged by holding an auction, through negotiations or on a traditional relationship. Last solution is usually preferred. After selecting the contractor will negotiate the terms and conditions, establishing common objectives. Benefits of partnership are to reduce costs, implementation time, improving the quality of work and reduce sources of conflict. For successful use of client partnership must have experience and competence in design and construction to have a good dialogue with the contractor.

b) Contracts construction type, ownership, operation, transfer

Contractual arrangements for such construction, ownership, operation, transfer (CPOT), construction, operation, transfer (TOC), Construction, Property, Operation (CPO), etc. are increasingly used in major infrastructure projects, which were traditionally funded from governmental sources. In these contracts, the developer (usually a large contractor or a trust contract) is responsible for establishing contractual relationships between the many stakeholders and functional (Figure 1), raising the funds needed for construction, facility operation and eventually transfer the property to local government after a period sufficient to pay loans, interest and a profit. Projects such as power stations, water desalination, highways or even large industrial units are typical examples of targets for extending this type of contract used. Using such construction contracts, property, operation, transfer and derived forms is more common in countries experiencing problems in raising funds nationally for large-scale projects which use strong companies, multinationals to gain access to foreign funding sources. Also, this method is used in more and more industrialized countries, where governments are unwilling to finance infrastructure development through increased taxes.

c) Two-stage bidding

For large and complex projects, offering two phases can be improved cost control and increasing discipline. The first phase is a request for proposals addressed a

small group of companies with recognized experience in the field. Previously, the discussions between the customer and the companies on the type, scale works and their respective ability to attain them. Each contractor submit bids with an estimated retail price. After selection of the contractor, in the second phase, it is required to work with the designer advising on the methods of construction, necessary equipment, allocation of work packages to subcontractors, priorities, program implementation and materials supply, etc. It then calculates the price that the customer is to pay and the contract is concluded on this basis.

d) Contracts in series

If the client wishes to make several similar projects, eg schools, you can select a contractor at an auction and the winning bid price may be the conclusion of further contracts with the same contractor for future similar projects. Of course, the new contracts will take account of inflation and other objective factors (Eg, differences in achievement from the Foundation on land with different characteristics). This method encourages the establishment of a trust relationship between the parties.

e) Type design and construction contracts (turnkey contracts)

Key contracts are prepared at the design stage of future goal. After selecting the contractor's tender, it should make the technical design, the construction of objective and in some cases up to the planned parameters operation and maintenance.

f) Overall contract

Overall contract is concluded between the acquiring entity, on the one hand, and the contractor (general contractor) and general supplier on the other hand, the latter assuming the overall responsibility of project completion, having the right to conclude subcontracts with specialist contractors and suppliers. Same overall agreement may be concluded between the entity acquiring both general contractor and supplier, in which case the latter comes from an association agreement which defines the responsibilities of the parties.

g) Separate contracts

Separate contracts are concluded between the acquiring entity and several contractors and suppliers one contract with each of them, where the acquiring entity has the technical capability to perform the Functions and Organization of supplier and general contractor. In this case the overall responsibility for the project is acquiring entity, contractors and suppliers responding strictly for work, supplies and services contracted separately.

h) Project with its own

Some clients, such as public authorities, companies in industries of strategic interest, some large companies, have the ability to realize they need the buildings themselves. In this case a contract is not required. May be used but the execution of works with subcontractors.

1.2.4 Contracts Management

Management contracts have emerged in response to the recent requirements of the construction industry, increasing the competence and care in planning and

controlling projects, from feasibility study to final acceptance of work. Currently uses three systems:

a) The construction management contract

Contract is concluded between the client and contractor (s). Originally, the outset of the project, the client hires a construction manager who will advise, will plan and coordinate the achievement of the objective. Construction manager is usually a construction company selected from the most prestigious national company. This will not directly make any construction; its role is similar to that of the designer or consultant.

b) Contract Management

Many customers consider that the risk of using multiple contractors, involved the use of construction management contract is too March. As a result, the trend appeared to employ a single contractor to lead the achievement of the subcontracting construction works. In this case, although the general contractor's duties are similar to the construction manager, risks that it assumes it is larger, because - although not directly involved in carrying out the works - has responsibility in terms of its performance, quality and fixed costs.

c) Contract Design and Management

Customer carried by themselves or by an independent firm to design the overall objective of the initial designs and, based on their required bids. Contractor offering the lowest cost for design and execution is the preferred target, but take into account the reputation, quality of service and fee required for project management. Winning contractor to tender and will choose both the designer and subcontractors who will perform through construction. He will not do any construction work directly. This type of contract is a logical development of contract management, including the design.

3. SELECTION OF TYPE OF CONTRACT

Select the type of contract that will be used to conduct the construction should take into account the characteristics of the project and the particular client organization. This is an essential element for successful project and therefore should be given great attention and to be completed as soon as possible after project initiation. It is necessary to compare the characteristics of the project with the characteristics of each type of contract. The significance of the main characteristics of types of contracts are as follows:

1. Responsibility for diversity. High dispersion of responsibility is to increase the power of decision and control project manager but may also lead to a phenomenon of dilution of responsibility.
2. Market size that is tested prices - demand. If the achievement of bids by contractors require expensive project to completion documentation available on how, they might be discouraged to participate in competition, unless it holds a restricted tendering. This narrows the auction market that is price-offer testing and lead to obtain a non-competitive price if the auction is done before the preliminary evaluation of contractors.

3. Precise definition of customer requirements. In the case at key defining customer requirements must be very accurate since the initial stage of starting project and it is necessary to have a final. Other types of contracts allow the progressive framing of customer requirements, approach that may be useful for projects with high risk and complexity.
4. Commencement of construction speed. Is low for traditional contracts, because you can not start construction before design completion. All other types of contracts can provide progressively, in parallel, design and construction.
5. Flexibility in achieving change. This criterion refers to the ease with which the client can make changes during construction to achieve the original project. If flexibility is low-key contracts, while the other types of contracts that vary within reasonable limits.
6. Ability to acquire and build progressively. Where the project is an important element of risk or funding sources are limited to its realization may be useful and progressive construction contracting.
7. Monitoring capacity costs to the customer. All types of contracts offer varying degrees, opportunities monitoring costs to the customer.
8. Consultation with the manufacturer early design stage. Manufacturer involvement in the design phase can lead to more effective technical solutions because in this way take account of the interests of another manufacturer from defining the project. By using contract turnkey client clearly pursues the achievement of such a situation.
9. Customer influence on the selection of subcontractors .Customer influence in this regard is limited in traditional contract is not possible for turnkey contract.
10. The possibility of controlling the quality of customer. Turnkey contracts do not provide customer quality monitoring; if he so wishes to engage a firm or an independent expert.
11. Possible existence of contractor for the lucrative cash flow. As for construction works entail significant financial transactions, contractor may obtain benefits if he can collect as soon as funds due and to delay payments as much as possible.
12. Financial incentive to the contractor for effective project management. Key and traditional contracts provide a good financial incentive for the contractor's performance while for contract management or construction management contractor receives a fee that is not necessarily related to the obtained performances.
13. Potential conflict. Quality, construction time and completion costs can be improved through better collaboration within the team. The types of contracts that recognize the responsibilities of various parties involved in construction management and excluding the operation of any of the parties are those that avoid conflicts.

REFERENCES:

- [1]. **Badger, W.; Gay, S.** (1996) *The Top Ten Lessons Learned in the Construction Purchases*, Cost Engineering, 38(5)
- [2]. **Barbulescu, C.** (2001) *Production Management*, Tribune Publishing, Bucharest
- [3]. **Caraiani, C.** (2008) *Costs: concepts, structures. Cost in decision making*, ESA Course
- [4]. **Caraiani, C.** (2008) *Management Accounting & Management Control*, University Publishing House, Bucharest
- [5] **Chase, R.B.** (2000) *Production and Management*, 8th Edition, Boston
- [6]. **Courage, A.** (2004) *Project management practice*, Publishing House, Bucharest
- [7]. **Hansen, R.; Mowen, M.M.** (1992) *Management Accounting*, 2nd Edition, South-Western Publishing Division Colegge Co., Cincinnati, Ohio
- [8]. **Shank, J.K.; Govindarajan, V.** (1993) *Strategic Cost Management: The New Tool for competitive Advantage*, New York

PHENOMENA AND BASIC MACROECONOMIC INDICATORS FOR MEASUREMENTS

PAULINA CATANA *

ABSTRACT: *Macroeconomics is a separate discipline of the Economy that studies and analyzes the behaviour of economic aggregates and significant average, such as price level, national income, national income potential, the gap GDP, employment and unemployment of labour, investment and export of the whole economy. We can accuse to Macroeconomics that it deals also with the average price of all goods and services, not the prices of certain products. These aggregates result from economic behaviour of certain groups (governments, companies, consumers) in the course of their activities on different markets. But why does it need Macroeconomics? Experts say that we need this separate discipline because there are certain forces that affect the broader economy globally, which can not be understood only by analyzing individual economic phenomena, individual products or markets.*

KEY WORDS: *Macroeconomics; microeconomics; national income; gross domestic product; inflation; unemployment; trade cycle; trend; currency market; cash flow*

JEL CLASSIFICATION: *E00*

1. INTRODUCTION

Macroeconomics totals together heterogeneous elements of economic value (goods, works, services and other goods) which is the aggregate national product studying its movement, it is also the average price of all goods and consumed services and determine the general level of prices for the economy, usually called the level price. By contrast, Microeconomics deals with detailed behaviour of individual agents, such as businesses and consumers in the activities of individual markets (oil market, grain market, etc.).

When a problem affecting all businesses and employees in various fields have analyzed it throughout the economy and if the circumstances are common in many sectors of the economy, economy-wide analysis helps us better understand what happens, studying the representative units considered part of the economic context.

* *Ph.D. Student, "Valahia" University of Targoviste, Romania, catana.paulica@yahoo.com*

2. THE MAIN MACROECONOMIC PROBLEMS

Key macroeconomic issues are: economic cycles, general standards of living, inflation and recession, unemployment, government and budget deficits.

Business cycles - a series of ups and downs, not by a constant pattern of a moving economy. Technology business cycles can be identified with notions like:

- *Depression* - characterized by high unemployment and low demand, compared with the capacity of economy to produce. Thus, part of the productive capacity is unused, of business profits which are low or even negative for some firms, it lacks faith in positive economic prospects in a immediately future, what determines many companies not take a risk in November investments;
- *Recovery (expansion)* - is characterized by replacement of worn equipment, increasing labour occupation, increased production, sales and profits, noticeable growth of income and consumer spending, changing economic environment mentality from pessimism to optimism, and on the relative fund increase in demand, re-employment of unused production capacity in depression and unemployed labour absorption by default, launch new investments;
- *The peak* - represents the maximum of the cycle, characterized by high use of existing production capacities, labour shortages, and shortages of raw materials, which cause an increase in demand. Costs also grow and since prices also grow, yet, the business remains profitable.
- *Recession (contraction)* - represents an economic loss, more precisely, it can be defined as a decline in real gross domestic product from two successive quarters. Demand decreases and, as a consequence of production and employment decrease labour, as it happens with personal income. Profits decline, which seemed profitable investments in terms of increasing demand, now, they become unprofitable, profits decline and companies face financial difficulties. If recession is spread in time, it is possible that used production capacity not to take place because the unused capacity permanently increases. After dates in history, when a recession is strong and sustainable is called CRISIS;
- *Boom and crisis* - are two non-technical concepts, but often used. The crisis we have already defined previously and it is the opposite of depression boom increasing economic cycle that is half.

Economic cycle refers to the short-term fluctuations. Although phases of business fluctuations are described in these terms, there are no two identical cycles. Thus, starting from a lower turning point, the cycle goes through a phase of expansion (recovery), it reaches a turning point situated above and, then it enters to a recession. Cycles differ one from each other by amplitude peaks, their depressions and the speed with which a phase follows another one, although sometimes, the half ascending represents the "boom" (explosion), and the whole half descending represents "depression". A general living standard – is specific to any company and depends on how much it produces. The goods available for consumption depends on the goods

produced and the latter depends on the number of people working in production and productivity of their work. Living standards are directly proportional to the productive capacity and, therefore, it can be said that no company can get a real consumption increased only by the vote of higher real incomes for its citizens.

Inflation and recession are common words for governments, with competitiveness and economic growth, they are concerned about how to prevent recessions, reduce inflation, increase competitiveness and stimulate economic growth. Those who are in employment wish to avoid unemployment, which occurs along with the recession and continues to get revenues. Pensioners are concerned to protect against inflation hazard that can decrease the value of their savings. Companies are concerned about how inflation and recession, amid competition, may affect their profits and may even survive. Each of these concerns play a major role in Macroeconomics, and there are some of those forces that I mentioned at the beginning, which affect the economy as a whole and which requires the discipline of Macroeconomics.

Unemployment is an imbalance, an excess of supply over demand for workers with different levels and directions of evolution in the countries and periods that occur, it increases with worsening economic activity. Analysis of the causes and potential solutions are also on the current unemployment Macroeconomics' agenda. In all cases of recession or crisis, economists have proposed solutions for reducing unemployment as governments increase spending or reduce taxes. Why the governments are so reluctant in implementing such solutions today? Why some countries have a much lower unemployment rate than others? What is the relationship between such fiscal stimulus and inflation?

Government budget deficits are characteristic of governments that give free rein to their expenses without a match revenue collection capacity. Over the years, on the whole world, these deficits have been and are financed by government loans, which increased the national debt. At certain times, it was believed that budget deficits could be beneficial for the economy, because government spending creates jobs, but today there is concern about the potential burden of debt on which interest must be supported by leading contributors to maintain high tax rate. Is this a conflict between government policies and budget role governmental? Is a positive sign for the government budget deficit? It's a healthy economy if governments pursue a balanced budget? Recessions can be mitigated if governments deliberately pursue budget deficits? There are questions that Macroeconomics has the duty to respond and provide solutions.

3. FUNDAMENTAL MACROECONOMIC PHENOMENA

Without macroeconomic analysis of the fundamental problems in close accordance with the fundamental macroeconomic phenomena, it can not be given answers. Current macroeconomic condition of a nation, it can be a complete picture, described by the level and growth rate of total production and per capita employment of labour, unemployment rate, inflation, interest rate, foreign currency value and the balance of payments' answers. About these phenomena and indicators to measure, we

hear daily on the news and read on the newspapers. Politicians and economists theorize during campaign speeches on their side.

The question that arises is why policy decision has to be above economic decision (professional). Who established the hierarchy between politics and economics? By shaking hands and uniting minds (by ideas and will), are the professionals able to overturn the situation?

We will present you some of the fundamental macroeconomic phenomena, causes and the environment in which these variables affect the economic well being, and we extend our presentation on how these variables are measured.

3.1. Income and production

The phenomenon at the most comprehensive level of overall national economic activity is the production value. To measure the total production, quantities from a variety of goods are aggregated. We can not add an amount of coal to wheat, but we can gather monetary value of coal production with monetary value of wheat production. By adding the value of all goods made in an economy, we calculate the total national output, measured in local currency of that economy. This cash value of domestic production is just the nominal national income.

The variation of this size variation can be determinate both by the physical quantities and also the prices which it has to the base. Economists follow, exactly, to determine the extent to which any change is due to quantity or price changes. To achieve this, they do distinguish between changes in real national income, which occurs when the quantity of goods and services change, and changes in price levels. To determine the real national income, economists must determine what would happen if the national income would remain to constant prices. To do this, they evaluate all the quantities produced in a year at a constant set of prices that prevail in an arbitrarily chosen base year.

Thus, the real national income measures the total value of individual productions where each production is valued at current prices, but at a set of prices from a reference year. So, the nominal national income evaluation is based on current prices and national income is also called cash, and real national income is based on the evaluation of prices per a year and it is called national income at constant prices.

Considering that all we are interested in are the real production of goods and services, we use the terms "national income" and "national production" to refer to real national income and real national output. An essential concept correlated with national income is the national potential income that expresses what could produce a state economy using up all the resources and production capacity. It is usually referred to this concept as the "potential income" or sometimes "full employment income".

The difference between potential income and real income (which the economy actually produces in reality) is the output gap and GDP gap. True, there may be situations of equality of income and potential income as they are current and desired. But when the economy operates below potential output, output gap is called empty recessionist.

There may be situations where current income can not exceed the potential output gap and it becomes negative, situations in which we are dealing with a bowl. This explains the fact that income potential is defined for a normal rate of use of production factors and the normal rate may be exceeded temporarily. These variations consist of performed overtime labour, resorting to an extra hand, unclosing production capacity for routine repairs and maintenance etc.

We can appoint temporary circumstances because such opportunities are on short term, but with inflationary effects. Output gap created in this system is called inflationary gap. One of the most used sizes of national income is called gross domestic product or GDP, which can be estimated as real GDP or nominal GDP or GDP, and GDP expressed by expenses and GDP expressed by income.

Another related concept of income is gross national product (GNP). If GDP measures the produced output, i.e. income created in a country, GNP measures the income earned by a country. To convert GDP to GNP is necessary to sum all revenue collected from local businesses in assets held abroad and lower incomes, payments of foreign economic entities which hold assets in the country. This difference is called net property income from abroad and actually represents the transition from GDP to GNP.

3.2. Employment, unemployment and labour

National income and employment (and therefore unemployment) are closely related, such as short-term national income when the economy is fixed, the only way to produce more is to hire more workers. Labour productivity growth is a major source of economic growth, but the effects are felt on long term. Employees' represents the number of adults who hold a job and "unemployed" number of adults who do not work but actively seeking a job. Unemployment rate expresses a percentage of the workforce and it is calculated as the ratio between unemployment and labour.

Talking about unemployment and labour, it can suggest other concepts such as:

- full employment of labour - is often confused with the absence of unemployment and that is why in certain parts of the globe (North America), it is now called high occupancy labour;
- employment in terms of balance of jobs - the employment of labour when GDP is generated to its potential.

Full employment of labour is always accompanied by some unemployed for two reasons: any time when the number of vacancies exists at the same time and persons who seek employment (unemployment due to the normal flow of workers) and this form is called frictional unemployment or when because the economy is in a constantly changing and adaptation, there is always a discrepancy between the structure of labour demand and the structure of labour supply and this form of unemployment is called structural unemployment.

Employment in conditions of equilibrium of the labour force only occurs when there is frictional and structural unemployment. When there is not full employment of jobs, it appears and other forms of unemployment, the main cause being the economic cycle. Thus, during recessions, unemployment becomes excessive, over the structural

and functional unemployment and it is called cyclical unemployment (unemployment due to insufficient demand).

Unemployment when the economy operates with a potential GDP, it is called the natural rate of unemployment (unemployment rate which accelerates inflation). Estimates of the rates are quite difficult, but nevertheless, they are useful and they are made, representing useful delimitations, by which economists can analyze real performance of the economy measured by the real rate of unemployment.

Are accurate figures on unemployment? Unemployment rates calculated by agencies of state were always an insufficient number which reveals many aspects, even the concept of unemployment. The measurements, unemployment may be underestimated or overestimated. Thus, on the one hand unemployment overestimates actual measured unemployment by including labour which came from among the volunteer assets. Unemployment helps ensure protection against the real needs but also make people have a job pretending to seek work where recorded to the local office of the workforce.

This category of unemployed is included in the falsification of measurement data. On the other hand, the measured unemployment subsumes the real unemployment by not including a particular part of the workforce who would accept a job if it were available, but they are not enrolled for a job search because either they did not required for an unemployment, either they exceeded the legal period of unemployment and did not have documentation reactivated.

Talking to reality of unemployment which estimates unemployment, we can talk also about partially unemployment, to which fits the category which occupies part-time jobs, a category that is not reflected in official figures on unemployment. Unemployment is an indicator of social and political significance; governments being blamed when it is raised and invested with confidence when it is low. Except for inflation, unemployment is one of the indicators which all governments provide a great significance in macroeconomic policies. Normal economic changes and new economic policies can make progress in removing persistent unemployment but should not be accepted as inevitable.

3.3. Inflation and price level

Inflation is the growth in prices; a process that creates a state of economic imbalance in the existing money supply, in the economy exceeds, the actual needs of the currency, causing reduced purchasing power of the money. In studying the behaviour of inflation, economists use two concepts.

The first is the price, which refers to the average of all prices in the economy, and the second is inflation, which is defined as the percentage variation of price levels from one year to another. The need for measuring the level of prices has led experts to build a price index, which is the average price of various categories of goods, depending on their importance.

In another train of thoughts, price index can also be defined as an indicator that measures how much cost more goods in a year compared to how much cost in a year of (arbitrary) reference.

Inflation is one of the macroeconomic phenomena to priority attention to policymakers, because most citizens, economic agents complain effects when inflation is high and they are filled with worry that soon it will rise when inflation is low. Economic values are measured in money; we use them to run our businesses, wages, and loans, personal or corporate accounts which are also expressed in money. We cherish them not for themselves, but for what we can buy with them, meaning for the purchasing power and their real value. Purchasing power of money can be defined as the amount of goods and services that can be purchased with an amount of money. Purchasing power of money is inversely proportional to the price level. Studying the behaviour of inflation over time, we meet various manifestations of the inflation, such as:

- *Total anticipated inflation* - is the inflation that has no real effect because, firstly, all the employees know what financial arrangements will be, the inflation rate for the duration arrangement, and secondly, not all financial obligations must be expressed in real terms. In this case, the actual behaviour of the economy should be the same, with or without inflation.
- *All unanticipated inflation* - is inflation of the real value of all contracts expressed in denominated currency, it will change. This will encourage those who have a fixed payment in nominal terms and will penalize those who need to collect a certain sum of money. Inflation is that nobody feels it coming, nobody thinks about how to mitigate the effects until cancellation. Lenders will reimburse a less certain amount of money and so on, the borrowers will charge smaller amounts than those given loans. They will adapt to the situation, only when new contracts will be closed, but still remaining 'trapped' in the old ones.
- *Intermediate cases* - inflation falling somewhere between these two extremes (a total surprise or a total anticipation).

Inflation is a phenomenon difficult to predict with precision, adding to the uncertainties of economic life, highly variable rates of inflation causing a large uncertainty.

Price inflation rate measures variation of the level of prices into a period of time. Even if inflation is provided, all adjustments for inflation can not occur with the same speed, inflation redistributes income in a hazard way (those whose incomes are adjusted more slowly than prices will lose and those whose nominal income will increase before inflation win).

In another vein, even though inflation is provided, there are all the state institutions that would be necessary for all of them to avoid the consequences. Also, much of taxes are set in nominal terms, making the effects of inflation to vary with the price. Thus, the tax system in many countries, allows firms to deduct damping profits. If there is a rapid inflation, the allowed depreciation to be deducted, it may be much smaller than the real depreciation, making capital more expensive for companies and tends to reduce the effect of investments, and later the economical growth.

Some of the effects of inflation can be reduced or even completely avoided by indexing, which can be defined as linking payments to be made in terms of a contract with variations in price levels. In practice, indexing is less used than it should. Most of

the tax system is not fully indexed, and contracts are usually concluded in nominal terms, thus supporting the anticipated inflation risk. There are also long-term pay programs and savings that are related to indexing. Indexing application, more or less, is the prerogative of each government legislation and policy.

3.4. Interest rate

Can be defined as the price paid for money borrowed for a period of time and it is expressed as a percentage of money per unit. We face here with the concept of basic interest rate, a rate which banks use as a reference for all the interest that customers require. It is usually when they officially change as a result of government policy changes. Correlated with inflation, interest rates behave differentially, depending on inflation and we are dealing with nominal interest rate or real interest rate.

To obtain a real rate, it should be set the nominal rate at the desired real rate plus expected annual rate of inflation. Obligations of the borrowers depend on the real rate and not the nominal one. The interest rate is an important indicator in the banking market, with many economic connotations, such as for example, the influence on determining the total investment costs (when interest rate is high, investment loans are expensive and less effective than when interest rates are lower. The higher investment costs rise, potential GDP will be even more damaging on long-term future and living standards), it can influence the economic cycle with variations in interest rate and default rate of development.

3.5. Exchange rate and balance of payments

The analysis of macroeconomic phenomena and their effects, it is normal to take into account two very important indicators of each state's position in the international economy, namely exchange rate and balance of payments.

Exchange rate measures the amount of international currency and it is the price at which two currencies can be converted into one another. Interdependent notion of exchange is the exchange rate, the real effective exchange rate, foreign currency exchange market.

Real exchange rate is exactly the price that changes a currency with another, as long as the effective exchange rate is an indicator of the value of a currency against a basket of currencies consisting of all other European currencies.

Term assessment can be used to describe an increase in foreign currency (domestic currency that now worth more), while the depreciation period can be used to describe the reverse. Currency refers to foreign currency or in foreign currency effects such as bank deposits, checks or guarantees and payable in foreign currency exchange market; it is the market where foreign currencies are traded at prices denominated in exchange rates.

To know what happens with international trade and international movements of capital, governments keep records of transactions between countries, called the apparent balance of payments. Balance of payments records, all international payments

made for purchase of goods and services of both, and financial assets such as shares and bonds. We can discuss the trade balance, a term used to make specific reference to the difference between visible exports and visible imports and the balance on current account, which refers to visible trade, services and income flows from interest and dividends. Balance of payments deficits size is often a cause of political concerns, though; the balance of payments is a problem for politicians in terms of a fixed exchange rate than when the exchange rate fluctuates freely.

4. CONCLUSION

The questions to which macroeconomics tries to answer, come as an echo to the problems to which the individual economy really faces by individual state economy (national) but also, in interdependence with the international economy. For correct evaluation of the behaviour of various economic phenomena, experts have considered that before any other analysis must be carried, it must be made the difference between trend and cycle, the first being related to study economy for long periods of time (term), the second it can be found as a measure of time, within the first. The analysis of trends is appropriate to ignore deviations from trend, but this simplification does not significantly change the results because the long term, real GDP is similar to potential GDP change. Furthermore, over long periods of time, they are more interested in the evolution of production capacity in the economy (potential output).

While trends affecting long-term economic welfare at any given moment in time, the essential element is the economy which actually works as compared to its real potential. To examine the economy, we must study economic cycles, meaning short-term fluctuations outside growth trend. These fluctuations are important when the economy operates below potential and unemployment is high involving human suffering and economic waste. When the economy operates above its potential, inflationary pressures is strong, accompanied by economic disruption. Changing labour productivity and labour force structure dominates the long-term production trends and the occupancy rate of labour productivity and labour, but generally change slowly.

To analyze short-term phenomena movements, it is appropriate to ignore the long-term trends. It can be done considering holding both national income and labour productivity as constant. In these conditions, increased production means an increase in employment and unemployment reduction, production is directly proportional employment of labour and inversely related to unemployment. Considering productivity and labour as constant, not only simplify the analysis, but also more reasonably, it is an approximate reality when we deal with short-term behaviour of the economy.

Dominant historical trends of the economy are real production growth and the long-term price level. Increased production was never completely continuous. There have been, always, fluctuations around the trend rate of output growth. Growth study is simplified by ignoring these fluctuations and focus on pronounced trends. Study of fluctuations is simplified assuming trends are zero, so that all variations are fluctuations.

REFERENCES:

- [1]. **Lipsey, R.G.; Chrystal, A.K.** (1999) *Economia pozitiva*, Editura Economica, Bucuresti
- [2]. **Bacescu, M.** (2000) *Strategii si Politici Macroeconomice*, Editura Global Lex, Bucuresti
- [3]. **Isarescu, M.** (2000) *Cinci Lectii Pentru Reluarea Cresterii Economice - Relansarea Cresterii Economice in Romania*, Editura Economica, Bucuresti
- [4]. **Isarescu, M.; Tudorel, P.** (2000) *Strategia Nationala De Dezvoltare Economica A Romaniei Pe Termen Mediu - Centrul Roman De Economie Comparata Si Consensuala*, Bucuresti
- [5]. **Băbăiță, I.; Duță, A.; Imbrescu, I.** (2001) *Microeconomie*, Editura de Vest, Timișoara
- [6]. **Băbeanu, M.** (2006) *Macroeconomie*, Editura Universitaria, Craiova

THE FINANCIAL - ACCOUNTING IMAGE FOR THE PUBLIC BENEFITS OF RETIREMENT

IULIANA CENAR *

ABSTRACT: *Like any field of activity conducted in an organizational framework, the public pensions sector is subjected to multiple transformations. Among these are identified the transformations regarding the structure of the pension system, the characteristics of the pension's components/plans, the compatibility with the pension plans described by the international accounting standards, accounting treatments, etc. Therefore, this paper presents aspects regarding: the role of the public component of the pension system and its place within pension plans, potential risks and how they are assumed, the accounting of how pension funds are formed and used, using as guiding mark the two essential components of any pension plan: contributions and benefits, as well as the nature of the involved entities, aspects regarding the evolution of certain elements that influence the sustainability of the public pension system.*

KEY WORDS: *retirement benefits; accounting; state plans; contributions; benefits; risks; sustainability*

JEL CLASSIFICATION: *M41, H55, H83*

1. INTRODUCTION

In these times of crisis, of extensively publicized social bewilderers, it's certainly natural to raise the question regarding the opportunity of taking a step that will approach one of the tetchiest problems of present times - public pensions.

It is certain that any action directed towards shaping the endurance of the pensions system to the vicissitudes of times can't contest the usefulness of public insurances in the life of a society because of the multiple circumstances that can deny even the individuals rich of minimum existential resources. At the same time, we can't neglect the incentive policies for employment, ensuring a minimum wage, and on long term, the policies to improve training and education levels, all these on the background of economic development.

* *Assoc. Prof., Ph.D., „1 Decembrie 1918” University of Alba Iulia, Romania,*
cenar_iuliana@uab.ro

Starting from these premises and without excluding the „minefield” of the alternative solutions, we considered appropriate to clarify some aspects regarding the position of the public component of pensions within the post-employment benefits, according to the international accounting norms, the main actors involved in ensuring the system’s functionality, as well as presenting an image in figures of the current state of this social protection segment for the elderly and others.

The ground for this option is the fact the pension system is an important component of welfare and is the reflector of the economic, political, cultural and demographic evolutions of a country, as well as a result of the intention to reach goals, which will be propelled by finding the best possible solutions to ensure sustainability of the public pensions system on long term, being considered “the stumbling stone of each government in the next 50 years” (Presidency Commission for Social and Demographic Risks Analysis Rapport, http://www.presidency.ro/static/CPARSDR_raport_extins.pdf, p. 83).

2. RETIREMENT BENEFITS, RISKS AND BEARERS

Undoubtedly that when the human side is mooted, any approach, including the one regarding retirement benefits, gains special significance, especially if the subject includes a large part of the population, and it requires concrete measures to mitigate deficits and to ensure an equitability between generations.

On completion of the active period, in exchange for their work, employees are to receive certain benefits, particularly in the form of pensions, perceived as benefits for retiring from the active life.

Conceptually, benefits represent an earning, a benefit, a profit that somebody has as a result of a situation or an activity.

According to the Romanian Dictionary, pensions represent “the amount of money given monthly to people who retired from the professional activity for age limit, for disability or who lost their sponsor and are unable to work”.

The issue of retirement benefits is approached by the International Accounting Standards, namely IAS 19, “Employee Benefits”, and IAS 26, “Accounting and Reporting by Retirement benefits plan”. In the public sector, this problem is approached by IPSAS 25 “Employee Benefits”. The provisions of IPSAS 25 will come into force for the financial statements that cover periods starting from January 1st, 2011 or after this date.

The benefits granted to employees are defined as follows in the mentioned accounting norms: “employee benefits are all the forms of considerations given by an entity in exchange for the service rendered by employees”. In the structure of the benefits given to employees are also identified the *post-employment benefits*, namely those benefits that are payable after ending the employment contract, including pensions.

A separate place is held by **state plans**. These are established through regulations that refer to all entities, being implemented by the Government. Financing is done through the PAYG (pay-as-you-go) method, meaning current contribution

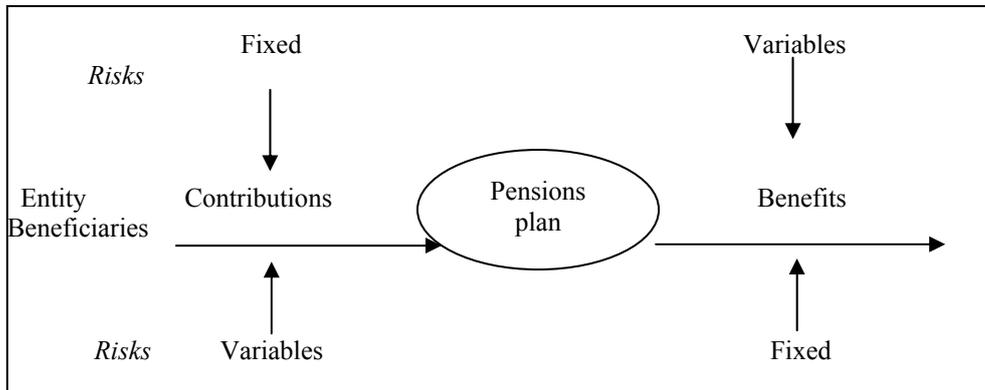
finance the current pensions and future retirement benefits will be paid by future contributions.

State plans may be determined contributions or determined benefits. In the first case, both public and private entities are bound exclusively to paying the contributions. The employee is subjected to the risk of lower benefits compared to the estimates (actuarial risk), but also to the risk of insufficient assets invested to generate the estimated benefits (investment risk).

The risk is a potential danger that may impact the existence or the activity of an organization / institution or of a system. It represents the uncertainty associated to any result. This uncertainty is generated either by the occurrence probability or by the effect of an event in case it happens. The risk occurs when: an event happens for sure, but its result is uncertain; the effect of an event is known, but the occurrence of the event is uncertain; both the event and its effect are uncertain.

„Rebut table presumption” is considered the characterization of the state plan defined as plan of defined benefits. According to it, the entity has the obligation to give employees the agreed benefits and to stand both the actuarial risk and the investment risk. This case requires actuarial assumptions in order to assess expenses and obligations.

The distinction between the two types of plans is presented schematically as follows:



Guidebook for understanding and implementing the International Accounting Standards, 2004, IAS 19 „Employee Benefits”, CECCAR Publishing, Bucharest, p. 37

Figure 1. The difference between defined contributions plans and defined benefits plan

As stated a few years ago, the principle of the accounting entity or the management principle of the accounting method may constitute the point of demarcation between the two plans that target retirement benefits.

The two mentioned international accounting standards (IAS 19 and IPSAS 25) approach pension plans only in terms of the entity, and not that of “substance”. Through the National Pensions House, the state undertakes the obligation to pay defined retirement benefits, at least in terms of scoring. It is also true that the amounts representing collected contributions (on the public component) are not invested to

“activate” actuarial assumptions, but are used to pay the pensions of the current retirees. In the opinion of the experts, this task was taken over by the Second Pillar, represented by universal pensions.

In terms of the public component of the retirement benefits, it is certain that we may talk about defined plans of contributions at the level of the entities and that the accounting norms put emphasis on the cost covered by the entity and not on the benefit about to be received by the employee. At the level of the public institutions, the issue is nuanced and it could possibly generate controversy.

3. ACCOUNTING INSTRUMENTATIONS

In terms of accounting, plans of state pensions require the participation of the following players: the employing entity (both public and private) and the state, through its institutional structure specific for this activity segment (the pension houses that manage the public system and the Treasury, as “state bank”). The insured represent the active generation, the taxpayers, the backers of the current pensions; and the pensioners are the users of the social insurance fund. In other words, they are the subjects of the intergenerational transfer within the public system of pensions. Interposed between them are the mentioned economic operators, which have the obligation to account all the operations concerning the management of the pensions’ fund.

In our opinion, and as it will be seen next, a large part of these operations are limited to recording directly or embellished (by using accounts receivable or obligations convertible to cash in the same accounting period) “the collected revenues and the paid expenses”. From a structural point of view, pension plans are related to benefits and contributions, which is why in the presentation of the accounting aspects we’ll use as benchmark these two elements.

Thus, public or private **entities** use paid workforce to achieve the targeted goals. The national legislation in force regarding the financial-accounting area stipulates the obligation of the employer to monthly contribute to the pension fund created at national level with a certain percentage from the salary of each employee. The social insurance contribution is the main source of the money funds needed to finance the expenses with public pensions and, according to the law, it is payable monthly by the insured (as future pension beneficiaries) and by the employer.

In the last 5 years, the annual budget laws established the following rates of contribution to the social security budget:

Table 1. Contribution rates to the social security budget between 2005 and 2009

Year	2005	2006	2007	2008	2009
The contribution rate of the employees	9,50	9,50	9,50	9,50	9,50
					10,50
The contribution rate of the employer	22,00	19,65	19,50	19,50	18,50
				18,00	20,80
Total	31,5	29,15	29,00	29,00	28,00
				27,50	31,30

Therefore, according to the table's data, with one exception, we can notice the constant input (9.5%) of the insured to the pension fund and the sinuous evolution of the employer's effort in this direction, namely the obligation to contribute with 22% from the wage fund in 2005, 19.5% in 2007 and at the end of 2009, with 20.8%. An isolated analysis of this situation doesn't generate valid conclusions; it must be correlated with the evolution of other indicators, such as: the number of contributors, the number of pensioners, the budget surplus/deficit, etc. Related exclusively to the contributor, it is certain that its effort to support public pension fund grew by over 3% since February 2009.

Correlatively, the accounting image contributions - benefits is as follows:

<i>Contributions</i>	
Expenses	= Contributions to social insurance (Debts regarding pensions)
Debts regarding pensions / Contributions to social insurance	= Available assets
<i>Benefits (pension benefits)</i>	
- no accounting entries are made	

According to the international accounting norms, the **accounting** of the defined contribution plans is done directly, without turning to actuarial hypothesis. Therefore, the entity will highlight a debt and an expense, *with the possibility to recognize an expense in advance* for the situation when the advanced payment of the contribution will generate the mitigation of future payments or the cash refund.

Thus, the entity may include the occurred pension cost in the production cost of the inventories in progress or of the non-current assets, according to the following accounting formula:

Production in progress = Pension liabilities
--

Even if the recently approved accounting regulations bring closer the accounting environment in our country to the international accounting norms, they stipulate the no offsetting principle. Therefore, any offset between assets and liabilities or between incomes and expenses is prohibited. All account receivables and liabilities must be separately entered in accounting. The possible offsets between claims and liabilities towards the same entity, done by observing the legal regulations, may be recorded only after accounting the associated revenues and expenses.

Therefore, according to regulations, the accounting books will fully record both the expense with the contribution to the social insurance budget and the income from production.

The current accounting norms also stipulate the option of the employer to form provisions for pensions and other similar obligations owed to employees as benefits received at the end of their professional activity. Provisions are recognized based on expenses when: an entity has a current obligation generated by a previous event; it is probable that a resource output is needed to honor that obligation; and a credible estimation of the obligation's value may be achieved.

Provisions for pensions: refer to the amounts that will be paid after the employees have left the entity; their value will be established by taking into account

age, seniority and personnel rotation within the entity; are acknowledged during the working period remained until retirement, when there is a certitude they will be paid in a foreseeable period of time.

Provisions must be revised or adjusted at the deadline of each balance sheet, thus reflecting the most accurate current estimation. Their value is established by experts in the field.

Against these reports, we naturally raise a question about the practical implementation of the legal stipulations regarding provisions, as long as the defined contribution plans have severance at the level of the work consuming entities.

Given the national pension system, the pensions of the employees are paid by the state budget, not by employers.

“In the category of benefits are included only the benefits covered by the entity” (IAS 19). Thus, in this context, we consider inadequate the creation of provisions because the acknowledgement conditions are not met. A more “realistic” circumstance to create provisions for pensions is represented by the possibility to increase in time the percentage applicable to wages regarding the contribution of the employers to the pension fund.

The **public treasury** is the second player involved in ensuring the functioning of the state plans. It represents an integrated and unitary system through which the state ensures the running of budgetary operations, collecting and making payments regarding public funds, including collecting the social insurance contribution that supply public pensions funds and the payment of retirement benefits to the post-active generation. These are components of the financial execution of the public sector.

The public treasury contributes to obtaining information regarding the execution of the consolidated general budget’s components and it represents the base of the informational system from the first to the last level of the national economy.

The accounting of the public treasury is organized and functions on the petty cash principle, the phrase specific to cash accounting being operable, namely collected contributions (revenues) - paid expenses:

<i>Contributions</i>
Petty cash (corresponding account of the Treasury) = Incomes of the „pension fund”
<i>Benefits</i>
Expenses (social pension benefits) = Corresponding account of the Treasury

Thus, at the level of the public Treasury are activated two defining elements for a retirement benefits plan, namely contributions and benefits. The obtained information contributes to achieving control over collecting revenues, as well as over financing expenses with pensions of the pension houses.

Pension Houses administrate and manage the public pension system. Therefore, they keep records of taxpayers, of the social insurance contributions; they establish the amount of the individual social insurance benefits and they make the payments, they certify the contribution period and the score for each insured, they ensure the budget execution, its accounting, etc.

In terms of the legal framework, at the level of the public institutions in general, therefore for pension houses also, the accrual model was implemented because general accounting, the component of public accounting, is based on the “principle of observing rights and obligations, which will reflect the evolution of the financial and patrimonial statements”.

Next, we’ll present the accounting model of the operations that target public contributions and benefits for pensions, in terms of the pension houses:

<i>Contributions</i>
Claims of the social insurance budget = Income from contributions
Availabilities of the social insurance budget = Claims of the social insurance budget
<i>Benefits</i>
Social insurance expenses = Social debts - pensions
Social debts - pensions = Financing from the social insurance budget

Apparently, accrual accounting seems to be implemented for the public component of the pension system. But what happens in reality? If we speak in terms of the time factor, we can assess the following:

- the accounting of claims is done according to accrual accounting;
- for obligations, we can talk only about a trimming of the cash accounting, because the obligation towards the retirees was created long before retiring, namely from the moment the pension benefits become legitimate. According to the legal framework, the pensions become legitimate, meaning they are not conditioned by future employments after meeting the legal conditions regarding the contribution period.

The presented issues lead us to conclude that after accepting the accounting model based on commitments, the public component of the pension system still has to beat the perception of commitment in its real meaning, so that the informing of users is accurate, as well as relevant.

Regarding the defined benefits plans, we mention only that the entity must use the actuarial hypothesis to credibly estimate the value of the benefits owed to employees in exchange for the provided services.

We can’t say there is a hierarchy of the players involved in managing the pension system because each has a contribution in ensuring the functioning of the mechanism called public pensions. Therefore, providing the financial resources necessary to pension houses for the payment of pensions is also possible due to the contributions of the employers through the public treasury.

In terms of the accounting component, we notice the implementation of the accrual accounting, as well as of the cash accounting, but also a hybrid form of accounting at pension houses, putting the social insurance contribution in a double position, as expense of the economic entity, and as income for the pension fund, as well as the possibility to improve the accounting information by valuing the real meaning of liability.

4. A FEW NUMERICAL ASPECTS REGARDING RETIREMENT BENEFITS AND THEIR ASSOCIATED ELEMENTS

The dependency level and the sustainability of the public pension system in the last five years can be assessed by comparing the number of employees with the number of retirees. In the table below can be seen the evolution of these indicators in the last 5 years, as well as the ratio that shows the dependency level:

Table 2. The evolution of the number of employees and retirees between 2005 and 2009

YEAR	2005	2006	2007	2008	2009
Number of employees -1	4501,2	4575,0	4717,2	4738,6	4367,7
Number of retirees - 2	4610,6	4633,0	4643,5	4665,8	4719,3
Ratio 1/2	0,976	0,987	1,015	1,015	0,925

The data table shows that, in addition to the sinuous evolution of the dependency ratio, its aggravation in 2009 proves the critical state of the public component of pensions. Even in 2007 and 2008, when the employees - retirees ratio is improper, the fact that a taxpayer carries the financial burden for a pensioner is an overwhelming reality.

Another indicator considered relevant for the current state of the pension system is the ratio between the gross average salary and the monthly average pension. According to statistics, the situation in the last five years was as follows:

Table 3. The monthly average pension - average salary ratio between 2005 and 2009

YEAR	2005	2006	2007	2008	2009
Monthly average pension	289	336	399	593	711
Net average wage	746	866	1042	1309	1381
Monthly average pension / Average wage ratio	0,387	0,387	0,382	0,453	0,514

Related to the third millennium, concepts like welfare state, decent standard of living, increasing life expectancy, etc. are used. The measures adopted in recent years, regarding the value of the pension point, lead to bringing the pension level to approximately half of the net average salary. Is it sufficient to talk about welfare and a decent standard of living irrespective of individual savings? At what costs has this been done?

By trying to answer the second question, we mention that in the first month of 2010, the social insurance budget deficit was 807 million lei, while in 2009 it was 958 million lei. In January, however, there was no transfer from the state budget to the pensions' budget, while in 2009 the subventions were 6.4 billion lei, and in 2008, it was 1.37 billion lei. The presented data are raising a new question: is this type of public pension insurance mechanism sustainable on long term? Certainly not.

In a report published at the end of March by the European Commission, Romania is seen as one of the countries with the biggest risk of collapse of the public

pension system, and the consequences would be more serious than the ones of the current economic crisis. Furthermore, Romania is in one of the most difficult situation in the European Union, and the pension system will be the touch stone of each government from now on.

5. CONCLUSIONS

State plans, considered from the perspective of the entities, and defined contribution plans are the basic component of the retirement benefits system in Romania.

One may speak of an organizational triad in obtaining information about the public pension system, namely employers-taxpayers, public and private entities, the state's cashier - the public Treasury and the pension houses, on whose shoulders lays the responsibility of efficiently managing the retirement benefits.

Also, considering the accounting dimension, we notice the cohabitation of cash accounting with accrual accounting and the need to reconsider the commitment at the level of the pension houses, in terms of acknowledging the obligation towards current contributors - future retirees, from the moment it is generated. Such an approach could contribute to improving accounting information and could be an argument for the decisions regarding the public component of the pension system.

A problem that shouldn't be neglected and is present in any system of social protection is the extent to which it manages to reduce poverty and inequality between various categories of population with maximum efficiency (by directing transfers only towards the people who have the right to receive them). Therefore, the principle of uniqueness of the public pension system should find practical application for all the categories of active population (including magistrates, parliamentarians, military personnel, etc.).

We believe that from the set of measures for recovery and for ensuring the sustainability of the public pension system, the contributor entity was neglected. People insist on the private pension plans and on the effects of their late implementation, but they don't insist on the extremely important role that the entity may have in showing appreciation towards employees by introducing pension plans for the enterprise. They represent a way to soften the impact of the regression of the public pension system and a way to appreciate the contribution and the effort of the human resource in achieving the objectives of the organization.

In the end, we accede to the recent statement that "... waiting for disasters to occur is a dangerous strategy. Now it is time to act in order to protect our future" (Gheorghe, www.acad.ro/pro_pri/doc/st_b02.doc).

REFERENCES:

- [1]. Cornescu, V., et. al. (2004) *Management - de la teorie la practică*, Editura Universitară, Bucharest
- [2]. Gheorghe, A. *Analiză de risc și de vulnerabilitate pentru infrastructurile critice ale societății informatice - societate a cunoașterii*, Available at: www.acad.ro/pro_pri/doc/st_b02.doc [Accessed 27.05.2010]

-
- [3]. **Ștefan, D.** (2006) *Convergență vs armonizare contabilă - implicații în sectorul asigurărilor*, Annales Universitatis Apulensis, Series Oeconomica, Finance-Accounting, Alba Iulia
- [4]. **International Federation of Accountants** (2009) *International Accounting Standards Guidebook for the Public Sector*, CECCAR Publishing, Bucharest
- [5]. **International Federation of Accountants** (2004) *Guidebook for understanding and implementing the International Accounting Standards, IAS 19 „Employee Benefits”*, CECCAR Publishing, Bucharest
- [6]. Order of the Ministry of the Public Finance no.3055/2009, for the approval of accounting regulations compliant with European directives, published in Official Gazette no. 766 bis/ 2009
- [7]. Government Emergency Ordinance no.146/2002 on the build-up and use of resources run through the state Treasury, republished, Official Gazette no. 295/2008
- [8]. <http://www.cnpas.org>
- [9]. <http://www.mmuncii.ro/ro/55-view.html>
- [10]. <http://www.capital.ro/articol/sistemul-public-de-pensii-intra-in-colaps-fara-reforme-rapide-132872.html> (20.05.2010)
- [11]. http://www.presidency.ro/static/CPARSDR_raport_extins.pdf
- [12]. http://www.efin.ro/articole_financiare/finante/romania_in_topul_tarilor_din_ue_cu_sisteme_publice_de_pensii_nesustenabile.html

ADVANTAGES AND DISADVANTAGES OF THE EURO

MELINDA CENUȘE, IMOLA DRIGĂ *

ABSTRACT: *Creating a single European currency has, undoubtedly two great advantages: on the one hand, lower transaction costs resulting from exchanging various national currencies and, on the other hand, removing the uncertainty arising from these exchanges. Mugur Isarescu, the Governor of the NBR, has recently said that the adoption of the euro in 2014 could not be possible, if inflation does not drop a sustainable level in 2010 and 2011. He noted that current experience with the inflation and devaluation of the national currency shows that reducing inflation without improving other indicators is counterproductive. The problem of estimating the main advantages of a single currency and of a monetary union in general is that it is difficult to clearly distinguish them from those resulting from other aspects of economic integration. The success of a monetary integration requires a certain degree of coordination of macroeconomic policies. It is unanimously agreed that if countries cooperate with each other, together they shall have better results than in the case they do not cooperate. In budgetary process local authorities have the right to establish, observe, control, follow and charge municipal taxes. In this process they also have to report local budgets implementation and rectification.*

KEY WORDS: *a single European currency; inflation; devaluation; monetary integration; European Union; budgetary process*

JEL CLASSIFICATION: *F15*

1. GENERAL CONSIDERATIONS REGARDING EURO

The introduction of the euro on the EU market was, at that time, a political and economic success. If the EU citizens needed a period of adjustment to the new currency, for those outside the eurozone the transition was more sudden and more limited. This means that, practically, only traders, who were carrying out import-export

* *Lecturer, Ph.D. Student, University of Petroșani, Romania, melysz@yahoo.com
Lecturer, Ph.D., University of Petroșani, Romania, imola.driga@gmail.com*

activities with the European Union and with other institutions involved, could use the euro.

Since the 1989 revolutionary changes, Romania has been faced with two processes which are able to frighten even the great idealists that are absent anyway.

The first was called the transition from communism to capitalism, although the starting point was not necessarily communism while the next step was too vague to be considered capitalism. The second major process that we faced was acceding to the European Union. Most of the times it is difficult to distinguish between the two phenomena, especially when the European integration has become a programmatic adjustment process with the *acquis* "in hand", to the operating conditions of the EU, so that "anybody can understand" the membership criteria adopted in Copenhagen. In short it can be called modernization. There is a consensus of the entire society about the necessity to develop Romania. It is only normal and, in anticipation, we can say that here we find the strongest support, in large percentage, of the European integration. This shows that the Romanians equal the modernization process, meaning the overcome of communism, and the European integration process.

Obviously, after becoming a new Member State - from January 1st, 2007, the next step for Romania is joining the eurozone.

From legislative point of view, the problem was solved, meaning that when reviewing the constitution in 2003 the Article 137, paragraph 2 mentioned that the national currency is LEU while the fractional currency is BAN and after Romania has acceded to the European Union can admit the circulation and replacement of the domestic currency with that of the European Union, by organic law.

As far as the transition to the euro is concerned - Mugur Isarescu, the Governor of the NBR, has recently said that the adoption of the euro in 2014 could not be possible, if inflation does not drop a sustainable level in 2010 and 2011. He noted that current experience with the inflation and devaluation of the national currency shows that reducing inflation without improving other indicators is counterproductive. "We were taught that reducing inflation with unsustainable measures is not advantageous. If we are not able to bring the inflation within limits, in a sustainable way, plan B is to collect other policies and allow the economy to correct it using the toughest measures", said Isarescu.

Central Bank's official explained that inflation expectations, as well as the exchange rate were changed, which shows that playing only one single card may turn against the very purpose. He gave for example the large current account deficit and the persistence of an aggregate demand which is too high. "If someone does not reduce these imbalances and they turn against inflation, you can not just sit and watch. My message is that we need to lift the pressure from the monetary policy, as far as the current account deficit is concerned", said Isarescu. Under the circumstances, Isarescu says that even a downward adjustment of 0.2 percentage points of the GDP planned for this year could be beneficial because at this moment even the message counts.

The governor of the NBR also pointed out that low inflation is not enough to convince the EU authorities and the European Central Bank that Romania is ready to join the eurozone. "Before the two years prior to ERM II (exchange rate mechanism), another two years are required to demonstrate and convince that the country is stable.

If we won't have a low inflation by 2010, which should have been reduced together with other indicators, the ECB and the EU will ask you if you get a lower inflation on a large current account deficit and on an overrated national currency," explained Isarescu.

The target for the euro adoption might be compromised, because in 2012 and 2013 some tough correction measures would be necessary.

2. THE ADVANTAGES OF EURO

For many years, political and economic debates on the existence of a Single European Market and of an Economic and Monetary Union waged between supporters and opponents of this idea have separated the public opinion. Each of the two sides highlighted the advantages and disadvantages of this Union, including those that could result from issuing a single currency to replace gradually all current national currencies, seeking to minimize, in a certain way, negative and positive influences that this Union might have on the national economies of Member States. Therefore, an objective and lucid overview of all these effects of the existence of a single currency, which highlights both positive and the less positive aspects is absolutely necessary.

Creating a single European currency has, undoubtedly two great advantages: on the one hand, lower transaction costs resulting from exchanging various national currencies and, on the other hand, removing the uncertainty arising from these exchanges.

Among the general advantages of the single currency, here are the following:

- lower transaction costs;
- reducing the uncertainty affecting the profitability of international transactions;
- lower cost of capital;
- improve capital allocation;
- better use of the common monetary reserves;
- reducing losses due to different rates of inflation within EMU member countries;
- improving macroeconomic management and cooperation;
- improving macroeconomic stabilization within EU Member States.

The costs mentioned above, transaction and capital costs have a direct impact at the microeconomic level, on the private sector. While aggregate calculations at macroeconomic level, are made in order to study the impact on the economy; generally the effectiveness of these changes will be clearly visible in balancing costs and profits of each company. For businesses involved in international trade there will be a balance between the costs of these changes supported by taxes and the reduction of transaction costs resulting from those changes. It should be mentioned here that these costs affect firms only once, while reducing transaction costs will have beneficial effects throughout the activities undertaken by the company after adopting the euro.

The problem arises in a different way for companies are that not directly involved in international trade, they do not have to deal with transaction costs resulting from exchanging various national currencies. The responsibility lies with national governments to study the problem of covering the costs of these changes in a different

way from companies operating in an international environment and those carrying out strictly domestic activities.

Besides the reduction of transaction costs, switching to a single currency brings other advantages as well. Therefore, a monetary union will ensure convergence, on a medium term, of various interest rates that exist within member states, thus decreasing capital costs by lowering the country risk premiums that formerly presented high rates of inflation. Risks associated with private companies or some states, as reflected by the various "ratings" and real interest rates paid by them will fall, due to convergence of national inflation rates. This will result in a more efficient allocation of circulating capital.

On macroeconomic level, one of the fastest visible benefits will be given by the more important role played by the central banking system reserves, as compared to the role played by the reserves established for various currencies. It should be noted that, just like in the case of any economic reform measures, negative effects are the ones that occur the earliest, while positive effects occur on medium and long term. In the case of the euro, the costs of these reforms are immediately visible, while the potential benefits will be long in coming. Moreover, the costs of creating reserve currency are perfectly quantifiable, while its benefits are more difficult to be measured, this measure showing a degree of uncertainty. Political factors, faced with the existence of real costs related to the creation of the Monetary Union, had great difficulty in persuading electorates of the validity of subsequent benefits. The issue got even more complicated because transaction costs and the benefits of the single currency are divided equally among participating countries.

The problem of estimating the main advantages of a single currency and of a monetary union in general is that it is difficult to clearly distinguish them from those resulting from other aspects of economic integration. The success of a monetary integration requires a certain degree of coordination of macroeconomic policies. It is unanimously agreed that if countries cooperate with each other, together they shall have better results than in the case they do not cooperate. In the case of international cooperation we come across a problem similar to "the prisoner's dilemma": if everyone agrees to cooperate, they will get optimal results, but if some refuse such cooperation, the best strategy is to encourage self-interest, even though the results shall be inferior to those determined by global cooperation. This is why EMU member states get better results by coordinating their own policies than by acting on different pathways. The Monetary Union will help stabilizing policies within member states because it automatically makes a transfer of resources within areas facing difficulties, thus adverse internal balances of payments can be controlled. Moreover, underdeveloped areas are to improve more rapidly and thus, unemployment is more easily fought with within these areas.

Last but not least, reserve currency has the advantage of facilitating price comparison in different countries. In case there are many national currencies, companies may require different prices for the same product sold in several countries, depending on the elasticity of the price demand. This monopoly power exercised by some firms leads to a loss of the consumer. When all goods and services will be valued in the same currency the conversion of process will no longer be needed, thus

facilitating their comparison. The reserve currency will lead to greater satisfaction of consumers and to the strengthening of competition within the EMU.

More recent studies clearly demonstrate the advantages of the Monetary Union for countries in transition from Central and Eastern Europe. Thus, an increase of the GDP by 1% within the eurozone will increase exports to Central and Eastern European countries by 0.6%; this increase of exports has a multiplier effect on the GDP growth by 1.5%. However, at the same time it will have a negative effect upon these economies: the effect of "trade diversion" within the eurozone, which will result in a decrease of the GDP in Central and Eastern Europe. Since trade diversion effect occurs only once, as a stock, the first effect, the positive one, occurs as a flow.

3. THE DISADVANTAGES OF EURO

The disadvantages of the reserve currency are just as important as its advantages. These disadvantages are grouped into two categories: those faced with during the transition to the Monetary Union (transition costs) and those that will appear after Monetary Union has been established.

The costs of adopting the euro are:

- deflation;
- costs of change;
- loss of income resulting from issuing currency.

There are inherent costs of the monetary union such as:

- loss of sovereignty;
- increase of costs necessary to make "shock" adjustments;
- lower economic growth rates.

The costs of changes are relatively minor: mainly changing the information and accounting systems. However, for some companies, these costs can be considerable. They will be transferred to customers, but with inflationary effects. Since benefits will not be taken until the end of the process, because they are not necessarily produced by those who bear its costs, their redistribution arises between the protagonists of these changes.

The most important costs of the reserve currency are macroeconomic. Two of them are inextricably linked to the transition process. The first arises because one of the accession criteria is the achievement of low inflation rates, therefore countries with high rates will have to undergo difficult and painful economic restructuring. This process is not symmetric meaning it does not compel countries with low rates of inflation to adopt inflationary policies, in order to tend towards an average rate. Countries with high inflation have several means available to achieve the objective of reducing it. It would be best to achieve an increase in aggregate supply, but this could take time. Another means would be provided by using the tax lever; however this leads to reducing living standards.

A second macroeconomic problem concerns the loss of income deriving from the right to coin money. Due to the fact that during the transition a tight budgetary policy is required, the loss of income will clearly have an adverse effect upon public

expenditure. An increase of direct and indirect taxation could solve this problem, also having a strong deflationary character.

At national level, EU governments will be faced not only with the loss of control of their own monetary policies in favour of the ESCB, but they will also suffer serious limitations and fiscal policies. This inconvenience does not occur if the policy objectives of the Economic and Monetary Union coincide with the objectives of member states in particular. In addition, the transition could achieve their objectives in less time and with less cost than in the case they would not have adopted the reserve currency. Under the circumstances, taking part in a joint sovereignty could provide advantages that Member States could not achieve by themselves.

4. CONCLUSIONS

In conclusion, we can say that the short term disadvantages are those which can be visible and measurable, while the advantages occur on medium and long term. Time will tell whether the establishment of an economic and monetary union is a good step towards increasing the prosperity of European Member States or whether, as some Euro sceptics say, it is only a step towards creating a stifling bureaucracy and centralization.

As far as the pros and cons regarding the European reserve currency are concerned Maurice Allais, a Nobel laureate for economics, expressed his negative opinions towards the euro. He believes that the euro can not and must not only refer to improving the EU and it should be used only when all conditions, not only economic but also political ones, will be met.

These conditions are:

- to ensuring convergence of monetary policies of member countries, ie convergence to a single value of inflation and exchange rate stability within the Community;
- in order to replace national currencies with the euro, all prior economic adjustments must correspond to the relatively fixed exchange rates within the EU;
- establishing a MU and the implementation of a single currency is linked to the forming of a political union. "The idea that the European integration will result in an irreversible political union, is totally groundless" - Maurice Allais says. "If you refuse such a political union, then a monetary union and the reserve currency are also denied.

Peter Sutherland, European commissioner between 1985 and 1989, General Manager of the World Trade Organization until 1996, supported the euro, but said, that according to the political implications of this act: "What is ultimately at stake is politics. A final decision on which countries should enter the monetary union will also be a general decision on which Member States can be counted on in order to meet future obligations arising from monetary union. This is not commonly admitted in public - says Peter Sutherland - because it has inappropriate connotations but it is unavoidable."

Bernard Connoly, former chairman of the Monetary Policy Committee of the European Commission is a known dissident Monetary Union who asserts that "Monetary Union is a dangerous fantasy." "The setting up of a Bundesbank in Europe or the implementation of a European Central Bank in Germany is impossible because Germany's Bundesbank place in German federalism is totally private and unique at a different scale. As long as Germany remains a strong national state, the Germans will keep Germany within the eurozone because they need partners to promote their interests. In case there will be a single Europe, the Germans would have interest to make it a German one." Therefore, Bernard Connoly considered the project of single European currency as a political struggle between France and Germany for taking control of Europe.

José Maria Gil-Robles, former President of the European Parliament ruled in favour of the reserve currency. "EURO will provide protection against the risks involved by currency transactions; it will be easier to compare prices of goods and services in different countries. Euro shall stimulate competition, which will be beneficial for consumers and producers; it shall facilitate trade within the Single Market, also stimulating investments." According to the opinion of the former president of the European Parliament "EURO will be one of the most stable currencies in the world."

Considering the transition to the European reserve currency - the euro - there are few estimates regarding the direct cost generated by the changeover. According to calculations made by the German bank, this cost is approximately 0.5% of the GDP, while the same cost forecast made by the ECB is located between 20 and 50 billion. These figures cover all expenses supported by the public sector (production of new banknotes and coins, destroying old ones, their transport and public information) and those paid by the private sector.

As far as exchange rates are concerned, the changeover has had a double effect. First, national currencies circulating in the underground economy were converted into dollars in order to avoid declaring them to the authorities. On the other hand, the lack of confidence of those who held currencies of various European countries that were outside the monetary union made them convert the money into U.S. dollars.

People who had undeclared money tried to spend it, thus increasing the private consumption and the demand for goods in the last quarter of 2001. The impact upon prices is difficult to assess. In principle, the impact should have been very limited because the introduction of new currency did not affect marginal cost, even if currency conversion costs increased by rounding up could have created inflation.

A first estimate made by Eurostat in the European Monetary field shows that the impact of the changeover upon prices was of 0.16 points, at a monthly rate of inflation of 0.5% in January 2002. In France, the consumer price index grew by 0.1% and the bank of Italy forecasted 0.2% in January and February. According to another study carried out by the Bank of Spain and due to the rounding resulted from exchanging into euro, it was of 0.2% if the superior cent was rounded and of 1.65% if the superior decimal was rounded. German central bank has not published a global

forecast, but it admitted that prices have increased, especially in the field of services in 2002, announcing that the adjustment process has not ended yet.

Although theoretically, it was assumed that the changeover could not increase inflation, practically this is exactly what happened. However, if we compare inflation within the eurozone with that of EU member countries that have not adopted the euro, it should be noted that they had almost the same trend.

In 2002 the European Central Bank found that there was no tension in the prices resulting from the changeover; a greater transparency in prices should generate increased competition and thereby restricting inflation.

We are waiting to see whether the euro will be that dreaded rival of the US dollar on the global market. The Euro is still young, with a little experience related to the existence of a European reserve currency, therefore we cannot say with certainty that its future shall not prove that it has enormous potential.

Euro-dollar parity has known decreasing trends as well. This is also due to the contribution of a series of political and economic factors. First, a leading political factor was the dispute between former Finance Minister Oskar Lafontaine and the European Central Bank, which resulted in an unstable market. Lafontaine, who was sending clear populist signals, backed away from the idea that there could be sound public finances and questioned the independence of the ECB. Such attacks have had a disastrous impact on the euro. After his resignation the market became satisfactory and the exchange rate recovered. Another political problem was the crisis of the European Commission. It is well known that the Court of Accounts initiated a report in which it accused several members of the Commission of poor management or even fraud. This report caused a real European "government" crisis resulting in a depreciation of the euro. The third factor that influenced the evolution of the euro was, without doubt, the war from Yugoslavia. It affected the whole continent, thus questioning its stability. Although the war took place outside the eurozone, its consequences were felt by Member States as well, especially as far as the budget plan was concerned.

REFERENCES:

- [1]. **Bibere, O.** (1999) *Uniunea economică între real și virtual*, Editura ALL, București
- [2]. **Fabian, G.** (2006) *Drept instituțional comunitar*, Ediția a II-a, Editura Sfera Juridică
- [3]. **Fuerea, A.** (2003) *Drept comunitar european. Partea generală*, Editura All Beck, București
- [4]. **Fuerea, A.** (2004) *Manualul Uniunii Europene*, ediția a II-a, Editura Universul Juridic, București
- [5]. **Chabot, N.** (2000) *Euro - moneda europeană*, Editura Teora, București
- [6]. **Manolache, O.** (2003) *Drept comunitar*, Editura All Beck, București
- [7]. **Marcu, V.** (2002) *Drept comunitar*, Editura Lumina Lex, București
- [8]. **Mitru, M.** (2001) *Economia integrării economice*, Editura A.S.E. București
- [9]. **Penea, D.** (1999) *Moneda Euro*, Editura Tehnică, București
- [10]. **Sanda, G.** (2003) *Integrarea economiei în Uniunea Europeană*, Editura Rhabon, Tg-Jiu

A PANEL COINTEGRATION ANALYSIS: AN APPLICATION TO INTERNATIONAL TOURISM DEMAND OF THAILAND

**CHUKIAT CHAIBOONSRI, JITTAPORN SRIBOONJIT,
THANES SRIWICHAILAMPHAN,
PRASERT CHAITIP,
SONGSAK SRIBOONCHITTA ***

ABSTRACT: *This paper sought to find the long-run relationships between international tourist arrivals in Thailand and economic variables such as GDP, transportation cost and exchange rates during period of 1986 to 2007. Also this paper used five standard panel unit root tests such as LLC (2002) panel unit root test, Breitung (2000) panel unit root test, IPS (2003) panel unit root test, Maddala and Wu (1999) and Choi (2001) panel unit root test and Handri (1999) panel unit root test. Moreover, the panel cointegration test based on Pedroni residual cointegration tests, Kao residual cointegration tests and Johansen fisher panel cointegration test were used to test in panel among the variables. The OLS estimator, DOLS estimator and FMOLS estimator were used to find the long-run relationship of the international tourism demand model for Thailand.*

The long-run results indicated that growth in income (GDP) of Thai's Asia major tourist source markets (Malaysia, Japan, Korea, China, Singapore and Taiwan) have a positive impact on international tourists arrival to Thailand. In addition, the transportation cost of these countries has negative impact on the number of international tourist arrivals to Thailand. Finally Thailand's currency has positive impact on the number of international tourist arrivals to Thailand. Most of findings from this study were consistent with economic theory and the implications of the model can be use for policy making.

* Ph.D., Researcher at Economic Research Park, Faculty of Economics, Chiang Mai University, Thailand, chukiat1973@yahoo.com

Assist. Prof., Faculty of Commerce and Accountancy, Thammasat University, Thailand

Assoc. Prof., Faculty of Economics, Chiang Mai University, Thailand

Assoc. Prof., Faculty of Economics, Chiang Mai University, Thailand

Assoc. Prof., Faculty of Economics, Chiang Mai University, Thailand

This paper has already presented at The 3rd Conference Of Thailand Econometric Society 7 - 8 January 2010, Center For Quantitative Analysis, Faculty Of Economics, Chiang Mai University, <http://www.econ.cmu.ac.th>

KEY WORDS: *Thailand; tourism demand; Panel Unit Root Test; Panel Cointegration Test; long-run relationship*

JEL CLASSIFICATION: *C53, L83*

1. INTRODUCTION

In Thailand international tourism is the fastest growing industry and the earnings from international tourism in Thailand have increased substantially, rising from 220 billion baht in 1997 to 299 billion baht in 2001. Moreover, the earnings from international tourism in Thailand have risen from 323 billion baht in 2002 to 450 billion baht in 2005. While, the number of international tourist arrivals to Thailand was 7.22 million in 1997, by 2005 the number of international tourist arrivals to Thailand had increases to 13 million (source: Thailand's tourism organization).

Additionally, the domestic tourism industry in Thailand is also the fastest growing industry and the earnings of the domestic tourism industry has increases substantially, rising form 180 billion baht in 1997 to 223 billion baht in 2001. Furthermore, the earnings of the domestic tourism industry in Thailand have risen from 235 billion baht to 347 billion baht in 2005. In 2005 the numbers of tourists from East Asia's countries indicate 50% of international tourism market share of Thailand. Moreover, the top six countries from this area such as Malaysia, Japan, Korea, China, Singapore and Taiwan are import impact to the number of international tourism market of Thailand during period of 2000-2005 (source: Thailand's tourism organization).

Based on information above have inspired to produce this paper for education of Thailand's international tourism demand as well as this paper would like to study only tourists from these countries such as Malaysia, Japan, Korea, China, Singapore and Taiwan. For a long time now, economists have tried to understand the international tourist consumer behaviour through demand models.

For example, Barry and O'Hagan (1972): studied the demand of British tourists going to Ireland; Jud, G.D. and Joseph, H., (1974); studied the demand of international tourist going to Latin American; Uysal and Crompton (1984) studied the demand of international tourists going to Turkey. Summary (1987) studied the demand of international tourists going to Kenya, Kulendran, N. (1996) studied the demand of international tourists going to Australia; Lim C. and M.McAleer (2000) studied the demand of international tourist going to Australia; Durbarry (2002) studied the demand of international tourists (French) going to the UK, Spain and Italy. As well as Narayan (2004) studied the demand of international tourists going to Fiji. The aim of this paper was to study about the international tourist consumer behaviour in coming to Thailand during period of 1968 to 2007 through the international tourism demand model. The consumer behaviour information gathered from this research will help in developing the international tourism industry in Thailand.

2. RESEARCH AIM AND OBJECTIVE

This research aimed to determine how various factors affect international tourist demand arrivals to Thailand in the long-run and to use the international tourism demand model to explain international tourist behaviour in Thailand.

3. SCOPE OF THIS RESEARCH

This research focuses on during period of 1998 to 2007. Most of the data was used in this research as secondary data and also the countries under analysis are Asia major tourism market of Thailand such as Malaysia, Japan, Korea, China, Singapore and Taiwan. All of these countries had a significant impacted on the international tourism industry of Thailand in the same period (source: Thailand's tourism organization). The variables were used in this research such as the numbers of international tourists arriving in Thailand, the GDP of the countries that the tourists were coming from, the international price of aviation fuel, and the exchange rate of Thai currency in comparison to foreign currencies.

4. THE METHODOLOGY AND RESEARCH FRAMEWORK

4.1. The theory of International Tourism Demand Model

The concept of international tourist demand has been applied since 1950 but the estimation of international tourist demand by the econometric method was first used by Artus (1972). Following that, a lot of studies on international tourist demand function used the econometric method. This researcher reviewed the work of Archer (1976), Crouch (1994), Walsh (1996), Lim (1997), Inclair (1998), Lise & Tol (2002), McAleer (2001,2003), Narayan (2004), Prasert, Rangaswamy and Chukiat (2006). Growth in international tourism is closely aligned to economic variables, which at both the microeconomic and macroeconomic levels influences the consumer's decision to undertake overseas travel.

Empirical research on international tourism demand has overwhelmingly been based on aggregate time series data which permits the estimation of income and price elasticity on inbound tourism (see Lim, 1997 and McAleer (2000, 2001) and Prasert, Rangaswamy and Chukiat (2006)). A simple origin-destination demand model for international tourism can be represented as follows:

$$D_t = f(Y_t \ TC_t \ P_t) \quad (1A)$$

where:

D_t - is a measure of travel demand at time t ;

Y_t - is a measure of income of the tourist-generating or origin country at time t

TC_t - is a measure of transportation costs from the origin to destination country at time t

P_t - is a measure of tourism price of goods and services at time t

And assume that $(+Y_t)$, $(-TC_t)$, $(-P_t)$ and explain that when income at time t is increasing then the demand for international tourism is increasing simultaneously. When the measure of transportation costs from the origin to destination country at time t is increasing then the demand for international tourism decreases. And when the measure of tourism price of goods and services is increasing then the demand for international tourism is decreasing. Equation (1A) can be expressed in log-linear (or logarithmic) form:

$$\ln D_t = \alpha + \beta \ln Y_t + \gamma \ln \{F1_t \text{ or } F2_t\} + \delta \ln \{RP_t, ER_t \text{ or } RER_t\} + \phi \ln D_{t-1} + \theta \ln CP_t + u_t \quad (2A)$$

where:

$\ln D_t$ - logarithm of short-term quarterly tourist arrivals (or demand) from the origin to destination country at time t

$\ln Y_t$ - logarithm of real GDP in original country at time t

$\ln F1_t$ - logarithm of real round-trip coach economy airfares in Neutral Units of construction (NUC) between original country and destination country at time t

$\ln F2_t$ - logarithm of real round-trip coach economy airfares in original country currency between original country and destination country at time t

$\ln RP_t$ - logarithm of relative prices (or CPI of destination country/CPI of original country) at time t

$\ln ER_t$ - logarithm of exchange rate (original country per destination country) at time t

$\ln RER_t$ = logarithm of real exchange rate [or $CPI(\text{destination country})/CPI(\text{original country}) * 1/ER$] at time t

$\ln CP_t$ - logarithm of competitive prices [using $CPI(\text{destination country}) / (\text{other destination country})$]

u_t - independently distributed random error term, with zero mean and constant variance at time t

$\alpha, \beta, \gamma, \delta, \phi, \theta$ - parameters to be estimated; $\beta > 0, \gamma < 0, \delta < 0,$

$0 < \phi < 1, \theta > 0$ (substitutes) and $\theta < 0$ (complements).

The above information mostly focuses on the international tourism demand function based on time series analysis. Recently a lot of research about international tourist demand function has used the econometric method based on the panel data analysis. This researcher reviewed the following studies which applied this technique: Durbary (2002), Chin and Pan (2005), and Chukiatt Chaiboonsri, Prasert Chaitip and N. Rangaswamy (2008). Also the models were used in this research has modified from equation (2A) to be equation (3A).

$$\ln D1_{it} = \alpha + \beta \ln (GDP_{it}) + \gamma \ln (PO_{it}) + \theta \ln (ER_{it}) + u_{it} \quad (3A)$$

where:

i - cross-section-data (the number of country arrival to Thailand)

t - time series data

$\ln D1_{it}$ - logarithm of tourist arrivals (or demand) from the origin countries number i to destination country (Thailand) at time t

- ln GDP_{it} - logarithm of real GDP in original countries number i at time t (Y_{it})
- lnPO_{it} - logarithm of price of aviation fuel of original countries number i at time t (TC_{it})
- lnER_{it} - logarithm of exchange rate of original country number i per destination country (Thailand) at time t
- u_{it} - independently distributed random error term, with zero mean and constant variance number i at time t
- α, β, γ, θ - parameters to be estimated
- α > 0, β > 0, γ < 0, θ < 0

4.2. Panel Unit-Root Tests

Recent literature suggests that panel-based unit root tests have higher power than unit root tests based on individual time series. See Levin, Lin and Chu (2002), Im, Persaran and Shin (2003), and Breitung (2000) which mention test purchasing power parity (PPP) and growth convergence in macro panels using country data over time. This research focused on five types of panel unit root tests such as Levin, Lin and Chu (2002), Breitung (2000), Im, Pesaran and Shin (2003), Fisher-Type test using ADF and PP-test (Maddala and Wu (1999) and Choi (2001), Hadri (1999). These method also see more detail in Chukiat Chaiboonsri, Prasert Chaitip and N. Rangaswamy. (2008).

4.3. Panel Cointegration Test

Kao (1999) uses both DF and ADF to test for cointegration in panel as well as this test similar to the standard approach adopted in the EG-step procedures. Also this test starts with the panel regression model as set out in equation 20I.

$$Y_{it} = X_{it}\beta_{it} + Z_{it}\gamma_0 + \varepsilon_{it} \tag{20I}$$

where Y and X are presumed to be non-stationary and :(see equation 21I)

$$\hat{e}_{it} = \rho \hat{e}_{it} + v_{it} \tag{21I}$$

where $\hat{e}_{it} = (Y_{it} - X_{it}\hat{\beta}_{it} - Z_{it}\hat{\gamma})$ are the residuals from estimating equation 20I. To test the null hypothesis of no cointegration amounts to test $H_0 : \rho = 1$ in equation 21I against the alternative that Y and X are cointegrated(i, e., $H_1 : \rho < 1$). Kao(1999) developed both DF-Type test statistics and ADF test statistics were used to test cointegration in panel also both DF-Type(4 Type) test statistics and ADF test statistics can present below that:

$$DF_{\rho} = \frac{\sqrt{NT}(\hat{\rho} - 1) + 3\sqrt{N}}{\sqrt{51/5}},$$

$$DF_t = \sqrt{\frac{5t_\rho}{4}} + \sqrt{\frac{15N}{8}}$$

$$DF_\rho^* = \frac{\sqrt{NT}(\hat{\rho} - 1) + \frac{3\sqrt{N}\hat{\sigma}_v^2}{\hat{\sigma}_{0v}^2}}{\sqrt{3 + \frac{36\hat{\sigma}_v^4}{5\hat{\sigma}_{0v}^4}}}$$

$$DF_t^* = \frac{t_\rho + \frac{\sqrt{6N}\hat{\sigma}_v}{2\hat{\sigma}_{0v}}}{\sqrt{\frac{\hat{\sigma}_{0v}^2}{2\hat{\sigma}_v^2} + \frac{3\hat{\sigma}_v^2}{10\hat{\sigma}_{0v}^2}}}$$

$$ADF = \frac{t_{ADF} + \sqrt{6N}\hat{\sigma}_v/2\hat{\sigma}_{0u}}{\sqrt{\hat{\sigma}_{0v}^2/2\hat{\sigma}_v^2 + 3\hat{\sigma}_v^2/10\hat{\sigma}_{0v}^2}}$$

where:

N - cross-section data

T - time series data

$\hat{\rho}$ - co-efficiencies of 21I

$t_\rho - [(\hat{\rho} - 1) \sqrt{(\sum_{i=1}^N \sum_{t=2}^T \hat{e}_{i,t-1}^2)}] / Se$

Se - $1/NT \sum_{i=1}^N \sum_{t=2}^T (\hat{e}_{i,t} - \hat{\rho} \hat{e}_{i,t-1})^2$

$\hat{\sigma}_u^2$ - variance of u

$\hat{\sigma}_v^2$ - variance of v

$\hat{\sigma}_u$ - standard deviation of u

$\hat{\sigma}_v$ - standard deviation of v

$t_{ADF} - [(\hat{\rho} - 1) (\sum_{i=1}^N (e' Q_i e_i))^{1/2}] / S_v$

Pedroni (1995) provides a pooled Phillips and Perron-Type test and these test have the null hypothesis of no cointegration. The panel autoregressive coefficient estimator, $\hat{\gamma}_{N,T}$, can be constructed as follow: (see equation 21.11).

$$\hat{\gamma}_{N,T}^{-1} = [\sum_{i=1}^N \sum_{t=2}^T (\hat{e}_{i,t-1} \Delta \hat{e}_{i,t-1} - \hat{\lambda}_i)] / \sum_{i=1}^N \sum_{t=2}^T (\hat{e}_{i,t-1}^2) \quad (21.11)$$

where:

N - cross-section data

T - time series data

$\hat{e}_{i,t-1}$ - error term of model

$\hat{\lambda}_i$ - a scalar equivalent to correlation matrix

And also Pedroni(1995) provides the limiting distributions of two test statistics as well as can be written in equation 21.21:

$$PP\text{-statistic} = [T \sqrt{N} (\hat{\gamma}_{N,T}^{-1})] / \sqrt{2} \rightarrow N(0,1) \tag{21.2I}$$

And this research focus on ADF test statistic based on residual-based test follow concept of Kao(1999) to test cointegration in panel and also this research focus on PP-test statistic based on concept of Pedroni (1995) to test cointegration in panel. Both ADF-statistics and PP-statistic have same null hypothesis of no cointegration in panel. In term of combined individual test (Fisher/Johansen) also Maddala and Wu(1999) use Fisher’s result to propose and alternative approach to testing for cointegration in panel data by combining tests from individual cross-sections to obtain at test statistics for the full panel. If Π_i is the p-value from an individual cointegration test for cross-section i , then under the null hypothesis fir the panel, (see formula 1a)

$$2 \sum_{i=1}^n \log (\Pi_i) \rightarrow \chi^2 2n \tag{1a}$$

By default the χ^2 value based on MacKinnon-Haug-Michelis(1999) P-value use for Johansen’s cointegration trace test and maximum eigenvalue test. And The Johansen’s Maximum likelihood procedure. (see more detail at equation 11a)

$$\Delta Y_{i,t} = \Pi_i y_{i,t-1} + \sum_{k=1}^n T_k \Delta Y_{i,t-k} + u_{i,t} \tag{11a}$$

$$\begin{aligned} H_0 : \text{rank} (\Pi_i) &= r_i \leq r \text{ for all } i \text{ from } 1 \text{ to } n \\ H_a : \text{rank} (\Pi_i) &= P \text{ for all } i \text{ from } 1 \text{ to } n \end{aligned}$$

The standard rank test statistics is defined in terms of average of the trace statistic for each cross section unit and mean and variance of traces statistics.

4.4. Estimating panel cointegration model

The various (casually single equation) approach for estimating a cointegration vector using panel data such as the Pedroni (2000, 2001) approach, the Chiang and Kao (2000, 2002) approach and the Breitung (2002) approach. The various estimators available include with-and between-group such as OLS estimators, fully modified OLS (FMOLS) estimators and dynamic OLS estimators.

FMOLS is a non-parametric approach to dealing with corrections for serial correlation while OLS and DOLS are a parametric approach which DOLS estimators include lagged first-differenced term are explicitly estimated as well as consider a simple two variable panel regression model: (see detail calculated of OLS, FMOLS and DOLS in equation 23I, 24I and 26I).

$$Y_{it} = \alpha_i + \beta_i X_{it} + \varepsilon_{it} \tag{22I}$$

A standard panel OLS estimator for the coefficient β_i given by :

$$\hat{\beta}_{i, OLS} = [\sum_{i=1}^N \sum_{t=1}^T (X_{it} - X_i^*)^2]^{-1} \sum_{i=1}^N \sum_{t=1}^T (X_{it} - X_i^*) (Y_{it} - Y_i^*) \tag{23I}$$

where:

i - cross-section data and N is the number of cross-section

t - time series data and T is the number of time series data

$\hat{\beta}_{i,OLS}$ - A standard panel OLS estimator

X_{it} - exogenous variable in model

X_i^* - average of X_i

Y_{it} - endogenous variable in model

Y_i^* - average of Y_i

To correct for endogeneity and serial correlation, Pedroni (2000) has suggested the group-means FMOLS estimator that incorporates the Phillips and Hanseri (1990) semi-parametric correction to the OLS estimator to adjust for the heterogeneity that is present in the dynamics underlying X and Y . Specifically, the FMOLS statistics is : see equation 24I).

$$\hat{\beta}_{i,FMOLS} = N^{-1} \sum_{i=1}^N [\sum_{t=1}^T (X_{it} - X_i^*)^2]^{-1} [\sum_{t=1}^T (X_{it} - X_i^*) Y_{it}^+ - T Y_i^*] \quad (24I)$$

where:

i = cross-section data and N is number of cross-section data

t = time series data and T is number of time series data

$\hat{\beta}_{i,FMOLS}$ = Full modified OLS estimator

X_{it} = exogenous variable in model

X_i^* = average of X_i

Y_{it} = endogenous variable in model

Y_i^* = average of Y_i

$Y_{it}^+ = (Y_{it} - Y_i^*) - [(\hat{\Omega}_{21i} / \hat{\Omega}_{22i}) \Delta X_{it}]$ and $\hat{\Omega}$ is covariance

\hat{Y} = act to correct for the effect of serial correlation due to the heterogeneous dynamics in the short-run process determining x and y

In contrast to the non-parametric FMOLS estimator, Pedroni (2001) has also constructed a between-dimension, group-means panel DOLS estimator that incorporates corrections for endogeneity and serial correlation parametrically. This is done by modifying equation 22I to include lead and lag dynamics: (see equation 25I).

$$Y_{it} = \alpha_i + \beta_i X_{it} + \sum_{j=-k}^{ki} \gamma_{ik} \Delta X_{i,t-k} + \varepsilon_{it} \quad (25I)$$

$$\hat{\beta}_{i,DOLS} = [N^{-1} \sum_{i=1}^N (\sum_{t=1}^T Z_{it} Z_{it}^*)^{-1} (\sum_{t=1}^T Z_{it} \hat{Z}_{it}^*)] \quad (26I)$$

where:

i - cross-section data and N is number of cross-section data

t - time series data and T is number of time series data

$\hat{\beta}_{i,DOLS}$ - dynamics OLS estimator

Z_{it} - is the $2(K+1) \times 1$

$\hat{Z}_{it}^* = (X_{it} - X_i^*)$

X_i^* - average of X_i

$\Delta X_{i,t-k}$ - differential term of X

The above methods, used to estimate panel cointegration models, were mostly developed by Pedroni (2000, 2001). This research focused on the OLS estimator, the DOLS estimator and FMOLS estimator for estimating panel cointegration for modeling international tourism demand of Thailand.

5. THE EMPIRICAL RESULTS OF THE RESEARCH

5.1. The empirical results of the panel unit root test

This research used the panel unit root test of the variables by five standard method tests for panel data including Levin, Lin and Chu (2002), Breitung (2000), Im, Pesaran and Shin (2003), Fisher-Type test using ADF and PP-test (Maddala and Wu (1999) and Choi (2001)) and Hadri (1999).

Table 1 present the results of the panel unit root tests based on the five methods test for all variables were used in modeling international tourism demand of Thailand. The Levin, Lin and Chu (2002) method test indicate that $\ln D_{it}$, $\ln Y_{it}$, $\ln TC_{it}$ and $\ln ER_{it}$ are at the level of insignificance for accepting the null of a unit root. The Breitung (2000) method test indicate that that $\ln D_{it}$, $\ln TC_{it}$ and $\ln ER_{it}$ is the level of significance for rejecting the null of a unit root but $\ln Y_{it}$ have unit root. The Im, Pesaran and Shin (2003) method test indicate that $\ln D_{it}$, $\ln TC_{it}$ and $\ln ER_{it}$ have a unit root but $\ln Y_{it}$, have not unit root. Maddala and Wu (1999) and Choi (2001) method based on ADF-Fisher Chi-square test indicate that $\ln D_{it}$, $\ln TC_{it}$ and $\ln ER_{it}$ have a unit root but $\ln Y_{it}$ have not unit root. And also Maddala and Wu (1999) and Choi (2001) method based on PP-Fisher Chi-square test indicate that $\ln D_{it}$, $\ln Y_{it}$, $\ln TC_{it}$ and $\ln ER_{it}$ have unit root.

The Hadri (1999) method test indicates that $\ln D_{it}$, $\ln Y_{it}$, $\ln TC_{it}$ and $\ln ER_{it}$ have a unit root because this method has a null hypothesis of no unit root. From the results of the panel unit root test, it can be concluded that most variables were used in this model have unit root. So all variables should be take first differing or take second differing as well as after take first differing in all variables then the results of the panel unit root test based on five methods are presented in table 2.

The Levin, Lin and Chu (2002) method test indicate that $\ln D_{it}$, $\ln Y_{it}$, $\ln TC_{it}$ and $\ln ER_{it}$ are at the level of significance for rejecting the null hypothesis of a unit root. The Breitung (2000) method test indicates that $\ln D_{it}$, $\ln Y_{it}$, $\ln TC_{it}$ and $\ln ER_{it}$ are at the level of significance for reject the null hypothesis of a unit root. The Im, Pesaran and Shin (2003) method test indicate that $\ln D_{it}$, $\ln Y_{it}$, $\ln TC_{it}$ and $\ln ER_{it}$ are at the level of significance for rejecting the null hypothesis of a unit root. The Maddala and Wu (1999) and Choi (2001) method based on both ADF-Fisher Chi-square test and PP-Fisher Chi-square test indicated that $\ln D_{it}$, $\ln Y_{it}$, $\ln TC_{it}$ and $\ln ER_{it}$ are at the level of significance for rejecting the null hypothesis of a unit root. The Hadri (1999) method test indicated that $\ln D_{it}$, $\ln Y_{it}$, $\ln TC_{it}$ and $\ln ER_{it}$ have a unit root because this method has a null hypothesis of no unit root (see more detail in table 2).

Table 1. Results of panel unit root tests based on 5 method tests for all variables

Method test	Test statistic	Significance level for rejection
<u>Null : unit root (assumes common unit root process)</u>		
Levin, Lin and Chu (2002) t*- Statistics		
1. $\ln D_{it}$	0.57	0.71
2. $\ln Y_{it}$	-0.49	0.30
3. $\ln TC_{it}$	3.73	0.99
4. $\ln ER_{it}$	1.61	0.94
Breitung(2000) t*-Statistics		
1. $\ln D_{it}$	-2.73	0.00
2. $\ln Y_{it}$	0.35	0.64
3. $\ln TC_{it}$	-4.51	0.00
4. $\ln ER_{it}$	-1.69	0.04
<u>Null : unit root (assumes individual unit root process)</u>		
Lm, Pesaran and Shin (2003) W-Statistics		
1. $\ln D_{it}$	0.77	0.78
2. $\ln Y_{it}$	-1.85	0.03
3. $\ln TC_{it}$	5.96	0.99
4. $\ln ER_{it}$	2.04	0.97
Maddala and Wu (1999) and Choi (2001) ADF-Fisher Chi-square		
1. $\ln D_{it}$	11.36	0.49
2. $\ln Y_{it}$	22.17	0.03
3. $\ln TC_{it}$	0.03	0.99
4. $\ln ER_{it}$	2.04	0.97
PP-Fisher Chi-square		
1. $\ln D_{it}$	14.51	0.26
2. $\ln Y_{it}$	12.02	0.44
3. $\ln TC_{it}$	0.79	0.99
4. $\ln ER_{it}$	4.56	0.97
<u>Null : No unit root (assumes common unit root process)</u>		
Hadri (1999) Z-Statistics		
1. $\ln D_{it}$	5.36	0.00
2. $\ln Y_{it}$	5.39	0.00
3. $\ln TC_{it}$	5.58	0.00
4. $\ln ER_{it}$	4.18	0.00

From: computed

Table 2. Results of panel unit root tests based on 5 method tests for all variables after first differencing or second differencing into these variables.

Method test	Test statistic	Significance level for rejection
<u>Null : unit root (assumes common unit root process)</u>		
Levin,Lin and Chu (2002) t*- Statistics		
5. lnD _{it}	-6.78	0.00
6. lnY _{it}	-6.21	0.00
7. lnTC _{it}	-8.00	0.00
8. lnER _{it}	-6.61	0.00
Breitung(2000) t*-Statistics		
5. lnD _{it}	-3.18	0.00
6. lnY _{it}	-2.14	0.01
7. lnTC _{it}	-8.82	0.00
8. lnER _{it}	-5.48	0.00
<u>Null : unit root (assumes individual unit root process)</u>		
Lm, Pesaran and Shin (2003) W-Statistics		
5. lnD _{it}	-7.35	0.00
6. lnY _{it}	-5.30	0.00
7. lnTC _{it}	-7.06	0.00
8. lnER _{it}	-4.48	0.00
Maddala and Wu (1999) and Choi (2001)		
ADF-Fisher Chi-square		
5. lnD _{it}	64.36	0.00
6. lnY _{it}	46.66	0.00
7. lnTC _{it}	62.84	0.00
8. lnER _{it}	39.31	0.00
PP-Fisher Chi-square		
5. lnD _{it}	72.48	0.00
6. lnY _{it}	42.01	0.00
7. lnTC _{it}	110.21	0.00
8. lnER _{it}	42.82	0.00
<u>Null : No unit root (assumes common unit root process)</u>		
Hadri (1999) Z-Statistics		
5. lnD _{it}	1.79	0.036
6. lnY _{it}	2.35	0.009
7. lnTC _{it}	24.23	0.00
8. lnER _{it}	2.48	0.00

From: computed

5.2. The empirical results of panel cointegration test

Table 3 present the results of the panel cointegration test of the modeling international tourism demand of Thailand based on Pedroni Residual Cointegration Tests, Kao Residual Cointegration Tests and Johansen Fisher Panel Cointegration Test.

Table 3. Results from panel co integration test of the international tourism demand of Thailand

Test Name	Test statistic	Significance level for rejection of the null hypothesis (no cointegration)
(1) Pedroni Residual Cointegration Tests		
• Panel v-Statistic	0.703680	(0.3114)
• Panel rho-Statistic	0.280608	(0.3835)
• Panel PP-Statistic	-2.350831	(0.0252)
• Panel ADF-Statistic	-2.426043	(0.0210)
• Group rho-Statistic	1.031702	(0.2343)
• Group PP-Statistic	-2.103406	(0.0437)
• Group ADF-Statistic	-1.978332	(0.0564)
(2) Kao Residual Cointegration Tests		
• ADF-Statistic	-3.233149	(0.0006)
(3) Johansen Fisher Panel Cointegration Test		
• Fisher Statistics from Trace Test	30.7829	(0.0021)
• Fisher Statistics from Max-Eigen Test	18.4540	(0.1026)

From: computed

Most of these methods were used to test for this model indicate that all variables were used in this model are level of significant for rejecting the null hypothesis (no cointegration). The empirical results imply that all variables were used in the modelling international tourism demand of Thailand has cointegration with each other.

5.3. The empirical results of estimating panel cointegration model

Table 4 and Table 5 present the results of the long-run relationship for the modeling international tourism demand of Thailand based on OLS-estimator, DOLS-estimator and FMOLS-estimator (lnDit is the dependent variable). The empirical results of the long-run tourism demand models for Thailand were obtained by normalizing on visitor arrivals are presented in table 4.

All variables appear with both the correct sign and incorrect sign. Clearly, income of origin countries, travel costs of origin countries and exchange rate of origin countries are influential in determining international visitor arrivals to Thailand based on both the OLS-estimator and DOLS-estimator. The results of all variables were used in this research showed an impact on the international visitor arrivals to Thailand during period of 1968 to 2007.

In six countries as in long-run base on OLS-estimator to estimating panel cointegration model suggested that $\ln Y_{it}$ have positive impact on international tourist arrivals to Thailand at 1 percent level of statistical significance.

Table 4. Results of the long-run relationship of the modeling international tourism demand of Thailand based on OLS estimator and DOLS estimator ($\ln D_{it}$ is dependent variable)

Variables	OLS estimator	DOLS estimator
1. $\ln Y_{it}$	2.05*** (19.60)	1.89*** (16.60)
2. $\ln TC_{it}$	-0.22*** (-2.54)	-0.17** (-1.92)
3. $\ln ER_{it}$	-0.10 (-0.57)	-0.08 (-0.44)
4. $\Delta(\ln Y_{it}(-1))$	-	-0.42 (-0.44)
5. $\Delta(\ln TC_{it}(-1))$	-	0.05 (0.34)
6. $\Delta(\ln ER_{it}(-1))$	-	0.15 (0.41)
7. $\Delta(\ln D_{it}(-1))$	-	0.29* (1.74)

Note: estimates refer to (fixed-effects) long-run elasticity of output with respect to the relevant regression. T-ratios are in parenthesis and a * denotes statistical significance at the 10 percent level and a ** denotes statistical significance at the 5 percent level and a *** denotes statistical significance at the 1 percent level.

From: computed

In the six countries as in long-run base on DOLS-estimator to estimating panel cointegration model suggested that $\ln Y_{it}$ has a positive impact on international tourist arrival to Thailand at 1 percent level of statistical significance.

In the six countries (Malaysia, Japan, Korea, China, Singapore, and Taiwan) as in long-run based on FMOLS-estimator to estimating panel cointegration model suggested that $\ln Y_{it}$ has a positive impact on international tourist arrival to Thailand at 1 percent level of statistical significance.

**Table 5. Results of the long-run relationship of the modelling international tourism demand of Thailand based on FMOLS-estimator
($\ln D_{it}$ is dependent variable)**

INDIVIDUAL FMOLS RESULTS (t-stats in parentheses)

Asia-Country	Variable	Coefficient	t-statistic

No.1	LY	0.68 ^{***}	(6.60)
No.1	LTC	0.18 ^{**}	(3.28)
No.1	LER	0.77 [*]	(1.91)

No.2	LY	2.67 ^{***}	(4.74)
No.2	LTC	-0.07	(-0.91)
No.2	LER	0.72 ^{***}	(4.84)

No.3	LY	3.07 ^{***}	(9.85)
No.3	LTC	-0.25	(-0.63)
No.3	LER	1.04	(0.56)

No.4	LY	2.14 ^{***}	(20.16)
No.4	LTC	-0.71 ^{***}	(-5.14)
No.4	LER	-0.82 ^{***}	(-3.19)

No.5	LY	0.12	(0.72)
No.5	LTC	0.20 ^{***}	(5.95)
No.5	LER	1.23 ^{***}	(8.75)

No.6	LY	0.08	(0.22)
No.6	LTC	-0.19 [*]	(-1.37)
No.6	LER	1.48 ^{**}	(2.28)

No.1=Malaysia, No.2=Japan, No.3= Korea, No.4= China, No.5=Singapore, No.6=Taiwan
From : computed

PANEL GROUP FMOLS RESULTS

	Coefficient	t-statistic
LY	1.46 ^{***}	(17.26)
LTC	-0.14	(0.48)
LER	0.74 ^{***}	(6.19)

Nsecs = 6 , Tperiods = 22 , no. regressors = 3

6. THE CONCLUSIONS OF RESEARCH AND POLICY RECOMMENDATIONS

This paper was motivated by the need for empirical analysis of international tourist behaviour arriving in Thailand and an analysis of the determinants of Thailand's international tourism demand from its six main source markets such as Malaysia, Japan, Korea, China, Singapore and Taiwan. In this article, five standard panel unit root test were used test for all variables. Namely, Levin, Lin and Chu (2002), Breitung (2000), Im, Pesaran and Shin (2003), Fisher-Type test using ADF and PP-test (Maddala & Wu, 1999; Choi, 2001; Hadri, 1999). And in this article were used panel cointegration test base on Pedroni Residual Cointegration Tests, Kao Residual Cointegration Tests and Johansen Fisher Panel Cointegration Test.

Furthermore in this article also used the OLS-estimator, DOLS-estimator and FMOLS-estimator to investigate long-run equilibrium relationships between the numbers of international tourists arriving in Thailand with economics variables. These methods were suggested by Pedroni (2000, 2001). The economic variables such as the GDP of major countries of international tourists coming to Thailand, the world price of aviation fuel and the exchange rate of Thailand compared with the origin countries of international tourists.

This paper also has two important conclusions and recommendations that emerge from the empirical analysis of this research. Firstly, if income (GDP) of the Asia tourism markets of Thailand (Malaysia, Japan, Korea, China, Singapore and Taiwan) increase then it leads to an increase the number of international tourists traveling to Thailand. This result is consistent with economic theory and was similar to the results of previous empirical studies on tourist demand (Lim & McAleer, 2003), (Narayan, 2004), (Chaitip et al., 2006, 2008).

The long-run result for Thailand's international tourism demand implies that Thailand will receives the number of international visitors more when the income (GDP) of Asia tourism markets of Thailand will grow up more in the same of during period. If these results can be generalized for future years, then it argues well for the continued development of the Thailand tourism industry.

And secondly, if the transportation costs (price of aviation fuel) of the Asia tourism markets of Thailand (Malaysia, Japan, Korea, China, Singapore and Taiwan) increase then it will leads to decrease the number of international tourist arrivals from those countries to Thailand. This result is consistent with economic theory and it was similar to the results of previous empirical studies of tourism demand (Lim & McAleer, 2003), (Narayan, 2004), (Chaitip et al., 2006, 2008). If this results can be generalization for future years, then it suggests that the Thailand government should reduce cost of air ticket by reduce tax of aviation fuel for airplane fly from Asian countries to Thailand.

REFERENCES:

- [1]. Archer, B.H. (1976) *Demand forecasting in Tourism*, Bangor Occasional Papers in Economics, 9, University Press
- [2]. Banerjee, A. (1999) *Panel data unit roots and cointegration: an overview*, Oxford Bulletin of Economics and Statistics, Special issue, pp. 607-629
- [3]. Banerjee, A.; Marcellino, M.; Osbat, C. (2001) *Some cautions on the use of panel*
- [4]. Barry, K.; O'Hagan, J. (1972) *An econometric study of British tourist expenditure in Ireland*, Economic and Social Review, 3(2), pp.143-161
- [5]. Basile, R.; Costantini, M.; Destefanis, S. (2006) *Unit root an cointegration tests for cross-sectionally correlated panels. Estimating regional production function*, Rom University
- [6]. Breitung, J. (2000) *The Local Power of Some Unit Root Tests for Panel Data*, in B. Baltagi (ed.): Nonstationary Panels, Panel Cointegration, and Dynamic Panels, Advances in Econometrics, Vol. 15, Amsterdam: JAI Press, pp.161-178
- [7]. Breitung, J. (2002) *A parametric approach to the estimation of cointegration vectors in panel data*, mimeo
- [8]. Chaiboonsri et. al. (2006) *Thailand's international tourism demand: The ARDL approach to cointegration*, working paper no. 5 LSDC Thailand
- [9]. Chaiboonsri et. al. (2008) *A Panel Unit Root and Panel Cointegration Test of the Modeling International Tourism Demand in India*, Journal of Annals of University of Petrosani, Romania, 8(1), pp.95-124
- [10]. Chiang, M.H.; Kao, C. (2002) *Nonstationary panel time series using NPT 1.3 - A user guide*, Center for Policy Research, Syracuse University
- [11]. Choi, I. (2001) *Unit Root Tests for Panel Data*, Journal of International Money and Finance, 20, pp.249-272
- [12]. Coudert, V.; Couharde, C. (2006) *Real equilibrium exchange rate in European Union new members and candidate countries*, Bank of France, University of Paris
- [13]. Crouch, G.I. (1994) *The study of international tourism demand: a review of findings*, Journal of Travel Research, 33(1), pp.12-23
- [14]. Dhariwal, R. (2005) *Tourist arrivals in India: how important are domestic disorders?*, Tourism Economics, Vol. 11(2), pp.185-205
- [15]. Durbarry, R. (2000) *Tourism expenditure in UK: Analysis of competitiveness using a Gravity-Based Model*, Christel DeHaan Tourism and Research Institute, Nottingham University Business
- [16]. Durbarry, R. (2002) *Long Run Structural Tourism Demand Modelling: An Application*, Nottingham: Christel DeHaan Tourism and Travel Research Institute
- [17]. Fisher, R.A. (1932) *Statistical Methods for Research Workers*, 4th Edition, Edinburgh: Oliver & Boyd
- [18]. Garin-Munoz, T.; Perez Amaral, P. (2000) *An econometric model for international tourism flows to Spain*, Applied Economics Letters, 7, pp.525-529
- [19]. Hadri, K. (1999) *Testing the null hypothesis of stationarity against the alternative of a unit root in panel data with serially correlated errors*, Manuscript, Department of Economics and Accounting, University of Liverpool, Liverpool
- [20]. Hamori, S. (2008) *Empirical Analysis of the Money Demand Function in Sub-Saharan Africa*, Economics Bulletin, 15(4), pp. 1-15
- [21]. Hu, L. (2006) *A simple panel cointegration test and estimation in I(0)/I(1) mixed panel data*, The Ohio State University
- [22]. Im, K.S.; Pesaran, M.H.; Shin, Y. (2003) *Testing for Unit Roots in Heterogeneous Panels*, Journal of Econometrics, 115, 53-74. Inc., 15, 93-130

- [23]. **Inclair, M.T.** (1998) *Tourism and economics development: a survey*, The Journal of Development Studies, 31, pp.1-51
- [24]. **Jud, G.D.** (1974) *Tourism and economic growth in Mexico since 1950*, Inter-American Economic Affairs, 28(1), 19-43
- [25]. **Kao, C.** (1999) *Spurious regression and residual-based tests for cointegration in panel data*, Journal of Econometrics, 90, pp.1-44
- [26]. **Kao, C.; Chiang, M.H.** (2000) *On the estimation and inference of a cointegrated regression in panel data*, in B.H Bltagi, T.B Fomby and R.C Hill (eds), Nonstationary Panels, Panel Cointegration, and Dynamic Panels, Advances in Econometrics, 15, Elsevier Science, Amsterdam
- [27]. **Kulandran, N.** (1996) *Modeling quarterly tourist flows to Australia using cointegration analysis*, Tourism Economics, 2(3), 203-222
- [28]. **Kwan, Y.** (2006) *The Direct substitution between Government and private consumption in East Asia*, Department of Economics and Finance, City University of Hong Kong
- [29]. **Levin, A.; Lin, C.F.; Chu, C.** (2002) *Unit Root Tests in Panel Data: Asymptotic and Finite-Sample Properties*, Journal of Econometrics, 108, pp.1-24
- [30]. **Lim, C.** (1997) *An econometric classification and review of international tourism demand models*, Tourism Economics, 3, pp.69-81
- [31]. **Lim, C.; McAleer, M.** (2000) *A seasonal analysis of Asian tourist arrivals to Australia*, Applied Economics, 32, pp.499-509
- [32]. **Lim, C.; McAleer, M.** (2001a) *Conintegration analysis of quarterly tourism demand by Hong Kong and Singapore for Australia*, Applied Economics, 33, pp.1599-1619
- [33]. **Lim, C.; McAleer, M.** (2001b) *Monthly seasonal variations Asian tourism to Australia*, Annals of Tourism Research, 28(1), pp.68-82
- [34]. **Lim, C.; McAleer, M.** (2001c) *Modelling the determinants of international tourism demand to Australia*, The Institute of Social and Economic Research Osaka University, Discussion Paper No.532
- [35]. **Lim, C.; McAleer, M.** (2003) *Modelling International Travel Demand from Singapore to Australia*, Griffith University and University of Western Australia, Discussion Paper
- [36]. **Lise, W.; Tol, R.S.J.** (2002) *Impact of climate on tourism demand*, Climatic Change, 55, pp.429-449
- [37]. **MacKinnon, J.; Haug, A.; Michelis, L.** (1999) *umerical Distribution Functions of Likelihood Ratio Tests for Cointegration*, Journal of Applied Econometrics, 14, pp.563-577
- [38]. **Maddala, G.S.; Wu, S.** (1999) *A Comparative Study of Unit Root Tests with Panel Data and A New Simple Test*, Oxford Bulletin of Economics and Statistics, 61, pp.631-52
- [39]. **Maloney, W.; Montes Rojas, G.** (2005) *How elastic are sea, san and sun? Dynamic panel estimates of the demand for tourism*, Applied Economics Letters. Vol. 12, number 5/15, pp.277-280
- [40]. **McCoskey, S.; Kao, C.** (1998) *A residual-based tests of the null of cointegration in panel data*, Econometric Review 17, pp.57-84
- [41]. **Narayan, P.K.** (2004) *Fiji's tourism demand: The ARDL approach to cointegration*, Tourism Economics, 10(2), pp.193-206
- [42]. **Naude, W.A.; Saayman, A.** (2004) *The determinants of tourist arrivals in Africa: A panel data regression analysis*, North-West University, South Africa
- [43]. **Pan, C.M.** (2005) *Market structure and profitability in the international tourist hotel industry*, Tourism Management, 26, pp. 845-850
- [44]. **Pedroni, P.** (1995) *Panel cointegration: Asymptotics and finite sample properties of pooled time series tests with an application to the PPP hypothesis*, Manuscript, Department of Economics, Indiana University

-
- [45]. **Pedroni, P.** (1997) *Panel Cointegration: Asymptotic and Finite Sample Properties of Pooled Time Series Tests with an Application to the PPP Hypothesis*. New Results, Indiana University mimeo
- [46]. **Pedroni, P.** (1999) *Critical Values for Cointegration Tests in Heterogeneous Panels with Multiple Regressors*, Oxford Bulletin of Economics and Statistics, 61, pp.653-70
- [47]. **Pedroni, P.** (2000) *Fully Modified OLS for Heterogeneous Cointegrated Panels*, in Baltagi, T.B. Fomby and R.C. Hill(eds), *Nonstationary Panels, Panels Cointegration, and Dynamic Panels*, Advances in Econometrics, Vol. 15, Elsevier Science, Amsterdam
- [48]. **Pedroni, P.** (2001) *Purchasing power parity tests in cointegrated panels*, Review of Economics and Statistics, 83, pp.727-731
- [49]. **Pesaran, M.H.; Shin, Y.** (1998) *Impulse Response Analysis in Linear Multivariate Models*, Economics Letters, 58, pp.17-29
- [50]. **Proenca, S.; Soukiazis, E.** (2005) *Demand for tourism in Portugal: A panel data approach*, Discussion paper No. 29 Coimbra University
- [51]. **Ramirez, M.** (2006) *A panel unit root and panel cointegration test of the complimentary hypothesis in the Mexican case, 1960-2001*, Trinity college, Economics Growth Center, Yale University, USA
- [52]. **Summary, R.** (1987) *Estimation of tourism demand by multivariable regression analysis: evidence from Kenya*, Tourism Management, 8(4), pp.317-312
- [53]. **Uysal, M.; Crompton, J. L.** (1984) *Determinants of demand for international tourist flows to Turkey*, Tourism Management, 5(4), pp.288-297
- [54]. **Walsh, M.** (1996) *Demand analysis in Irish tourism*, Journal of the Statistical and Social Inquiry Society of Ireland, 27(4)
- [55]. **Westerlund, J.; Enderton, D.** (2006) *A panel Bootstrap Cointegration test*, Department of Economics, Lund University, Sweden
- [56]. *Pooled Time Series Tests with an Application to the PPP Hypothesis*, Econometric Theory, 20, pp.597-625

ON TESTS FOR LONG-TERM DEPENDENCE: INDIA'S INTERNATIONAL TOURISM MARKET

**PRASERT CHAITIP, SONGSAK SRIBOONCHITTA,
PETER BALOGH, CHUKIAT CHAIBOONSRI ***

ABSTRACT: *There has been growing interest in studying behaviour of long memory process in tourism market. In this research examine the behaviour of India's international tourism market based on long-memory analysis. The international tourism market of India combined with nine countries. For example, tourists from USA, tourists from UK, tourists from Canada, tourists from Germany, tourists from France, tourists from Japan, tourists from Malaysia, tourists from Australia and tourists from Sri Lanka. Moreover, three statistical test for long-memory process such as R/S test, Modified R/S test and GPH-test are employed to test in these markets. The empirical findings in general provide more support for no long memory process or no long-term dependence in international tourism market of India.*

KEY WORDS: *India; Long-memory process; Long-term dependence; International; Tourism Market*

JEL CLASSIFICATION: *C53, L83*

1. INTRODUCTION

The international tourism industry in India is more importance positive impact on India's economy. Fore example, contributing to the nation's gross domestic product is 6-7% in during period of 2003-2004, India's foreign exchange earnings through tourism is 5,731 million USD in 2005 and contributing to labour market is 9% of India's employment in during period of 2003-2004. Tourists to India spent \$ 372 on their visa cards in the year of 2005. This is a 25% rise from the year 2004 thereby, making India the fastest growing Asia-Pacific market for the International tourist

* *Assoc. Prof., Faculty of Economics, Chiang Mai University, Chiang Mai, Thailand*
Assoc. Prof., Faculty of Economics, Chiang Mai University, Chiang Mai, Thailand
Assist. Prof., Ph.D., University of Debrecen, Hungary
Ph.D., Researcher at Economic Research Park, Faculty of Economics, Chiang Mai University, Thailand, chukiatt1973@yahoo.com

spending. According to the World Travel and Tourism Council, the Indian tourism demand will grow at an annual 8.8% over the next ten years, fuelled by higher incomes and lower air fares. Moreover, In 2005 India earned US \$6.9 billion from inbound foreign tourists, which is more than twice the US \$3.1 billion earned during the year 2002. According to the latest balance of payments figures released by the Reserve Bank of India, 2005 was the year of fastest growth in forex inflows from foreign travel, during which inflows went up 36%. From information above has motivated to understand the international tourism market behaviour more by research study. Time series with long memory process was appeared in many contexts such as in financial economics, macroeconomics series, hydrology, cardiac dynamics, networks traffic, meteorology. Evidence of long memory process was first proposed by E. Hurst in 1951 when he testing the behaviour of water levels in the Nile River. In 1971, Mandelbrot was among the first to consider the possibility of long range dependence or long memory process in asset returns. And in 1998, Wright, J. studied about the detection evidence of long memory in emerging market stock returns in many countries such as in Korea, Philippines, Greece, Chile and Colombia. Caporale & Gil-Ala, 2002, studied about S&P 500 daily returns and they found that the degree of dependence remains relatively constant overtime, with the order of integration of stock returns fluctuating slightly above or below zero. In 2002, H. Olan studied about the finding long memory in stock returns from an international market perspective and also the results from this topic found that no evidence of long memory in UK stock market, USA stock market, Hong Kong stock market, Singapore stock market and Australia stock market. Furthermore, this topic also found evidence of long memory appears in the German stock market, Japan stock market, South Korean stock market and Taiwan stock market. In terms of international tourism market based on long memory process analysis was begun by Gil-Alana (2005). He examines forecasting properties of short-term arrivals at Auckland international airport and finds that the ARFIMA models outperform the non-ARFIMA ones in practically all case. After that Chu (2008) incorporates ARFIMA models into Singapore's tourism forecasting and compares the accuracy of forecasts with those obtained by earlier studies. Recently, Songsak, Prasert Jittaporn and Chukiat (2009, 2010) used forecasting method based on both ARFIMA models and ARFIMA-FIGARCH to forecast the number of international tourists arrival to Thailand and they also found that the long-memory process behaviour in their model to forecast. From many articles were found that they have not yet testing the long memory process in international tourism market based on R/S Test, Modified R/S Test and GPH Test. For this reasonable, this paper would like to test for Long-memory process in international tourism market of India based on data during period of 1981-2007.

2. RESEARCH AIM AND OBJECTIVE

This research aim to test long memory behaviour in international tourism market of India during period of 1981-2007.

3. SCOPE OF THIS RESEARCH

The scope of this research covers during period of 1981-2007 and mostly the data was secondary data. The countries were used for testing the long memory behavior are all the countries have impact on the international tourism industry of India such as USA, UK, Canada, Germany, France, Japan, Malaysia, Australia and Sri Lanka (Source of Data: Ministry of Tourism, Govt of India). And the variable was used in this research as the numbers of international tourist arrivals to India from 1981-2007.

4. THE RESEARCH FRAMEWORK OF LONG MEMORY TESTS

In terms of long memory process concept was developed by Harold Edwin Hurst since 1906. He is a young English civil servant, came to Cairo, Egypt, which was then under British rule. As a hydrological consultant, Hurst's problem was to predict how much the Nile flooded from year to year. He developed a test for long-range dependence (Long Memory Test) and found significant long-term correlations among fluctuations in the Nile's outflows and described these correlations in terms of power laws. This statistic is known as the rescaled range, range over standard deviation or R/S statistic. From 1951 to 1956, Hurst, then in his seventies, published a series of papers describing his findings (Hurst, 1951). Hurst's rescaled range (R/S) statistic is the range of partial sums of deviations of a time series from its mean, rescaled by its standard deviation. The definition of long memory process can explain by autocovariance function $\gamma(k)$. And also define a process as long-memory if in the limit $k \rightarrow \infty$: $\gamma(k) \sim k^{-\alpha} L(k)$, where $0 < \alpha < 1$ and $L(x)$ is a slowly varying function at infinity. Because $L(x)$ is a slowly function if $\lim_{x \rightarrow \infty} L(tx)/L(x) = 1$ (see Embrechts et al., 1997). The degree of long memory is given by the exponent α ; the smaller α , the longer memory. The long memory is also discussed in terms of the Hurst exponent H , which is simply related to α . For a long memory process $H = 1 - \alpha/2$ or $\alpha = 2 - 2H$. The short memory processes have $H = 1/2$, and the autocorrelation function decays faster than k^{-1} . A positively correlated long-memory process is characterized by a Hurst exponent in the interval (0.5, 1).

4.1. Test for Long Memory: R/S Test

The Long Memory test based on R/S test has developed by Harold Edwin Hurst in 1960 and Mandelbrot & Wallis (1969) method allows computing parameter H , which measures the intensity of long range dependence (long memory process) in a time series. The time series of length T is divided into n sub-series of length m and for each sub-series. For each sub-series $m = 1, \dots, n$, to find the mean (E_m) and standard deviation (S_m). And also subtract the sample mean $Z_{i,m} = X_{i,m} - E_m$, for $i = 1, \dots, m$.

After that produce a time series taking form of $W_{i,m} = \sum_{j=1}^i Z_{j,m}$ where $i = 1, \dots, m$ and to find the range $R_m = \max\{W_{1,m}, \dots, W_{n,m}\} - \min\{W_{1,m}, \dots, W_{n,m}\}$. The rescale of range R_m by $\frac{R_m}{S_m}$ as well as in case of time series can define R , S and H follow formula

below that: R is the distance covered by the variable, k is a constant and T is the length of the time $R = k \times T^{0.5}$; R/S is the rescaled range, m is the number of observation, k is the constant and H is the Hurst exponent, can be applied to a bigger class of time series $\frac{R}{S} = k \times m^H$; the Hurst exponent can be found as: $\log(R/S)m = \log k + H \log m$, and define that:

- If H value = 0.5 then time series follow a random walk and are independent.
- If H value = (0, 0.5) then time series are anti-persistent, process covers only a small distance than in the random walk case.
- If H value = (0.5, 1) then time series are persistent series, process covers bigger distance than a random walk(long memory process).

4.2. Test for Long Memory: Modified R/S Test

The modified R/S test is developed from the classical R/S test which was proposed by Hurst (1951) while studying hydrological time series of the River Nile. For a return series $\{x_1, x_2, \dots, x_T\}$, Lo (1991) refined the classical test by defining $Q_T = \hat{R} / \hat{\sigma}_T(q)$, where: $\hat{R} = \max_{0 < i \leq T} \sum_{t=1}^i (x_t - \bar{X}) - \min_{0 < i \leq T} \sum_{t=1}^i (X_t - \bar{X})$, $\hat{\sigma}_T^2(q) = \sigma^2 + 2 \sum_{j=1}^q w_j(q) \gamma_j^{\hat{}}$,

$w_j(q) = 1 - |j/q|$, σ^2 - the usual sample variance of data, \bar{x} - the mean of data, $\gamma_j^{\hat{}}$ - lag - j autocovariance for the data and the truncation lag q is determined by equation $q = \text{int} \left[\left((3T)/2 \right)^{1/3} \left((2\rho^{\hat{}})/1 - \rho^{\hat{2}} \right)^{2/3} \right]$. Where $\rho^{\hat{}}$ is the first-order sample autocorrelation coefficient and $\text{int} [\]$ is the integer function. Under the null hypothesis of no long memory or no long rang dependence, Lo (1991) presented that the limiting distribution of the Q_T statistics in equation (1) is given by the distribution function of the difference between maximum and minimum of Brownian bridge on a unit interval. Therefore, it can easily obtain the p-value of the test.

4.3. Test for Long Memory: GPH Test

The GPH Test for Long Memory process was developed by Geweke, J. and S. Porter-Hudak(1983) and they proposed to estimate of the OLS estimator of d from the regression: $\ln[I(\xi)] = a - d \ln[\sin^2 \left(\frac{\xi \lambda}{2} \right)] + e_{\lambda}$, $\lambda = 1, \dots, V$, where

$I(\xi) = \frac{1}{2\pi T} \left| \sum_{t=1}^T e^{it\xi} (x_t - \bar{x}) \right|^2$. And this equation is Periodogram (estimator of spectral density) of x at a frequency (ξ) as well as the bandwidth v is chosen such that

for $T \rightarrow \infty$, $v \rightarrow \infty$, but $\frac{v}{T} \rightarrow 0$. The Geweke and Porter-Hudak consider that the power of T has to be within (0.5,0.6) and the null hypotheses of no long memory process, the slope of regression d equal zeros and also the usual t-statistics can be employed to perform the test.

4.4. Data Description

In table (1a) to present the number of international tourists arrival to India during period 2003-2007. In 2003 the number of international tourists arrival to India was 2.7 million people and after that in 2004 they came to India grew up while compare with last year. However, as the same year they came to India were 3.4 million people. Moreover, in 2005 the number of international tourists arrival to India also have increased continuously. In this year the number of them came to India were 3.9 million people. From table (1a) has already presented that the number of international tourist arrival to India growth up every year. Based on these data have already confirmed that international tourism of India will become to be more interesting. (see more detail of data in table (1a)).

Table 1a. To present the number of international tourists' arrival to India during period 2003-2007

	2003	2004	2005	2006	2007
January	274,215.00	337,345.00	385,977.00	459,489.00	532,088.00
February	262,692.00	331,697.00	369,844.00	439,090.00	498,806.00
March	218,473.00	293,185.00	352,094.00	391,009.00	444,186.00
April	160,941.00	223,884.00	248,416.00	309,208.00	333,945.00
May	141,508.00	185,502.00	225,394.00	255,008.00	267,758.00
June	176,324.00	223,122.00	246,970.00	278,370.00	310,104.00
July	225,359.00	272,456.00	307,870.00	337,332.00	377,474.00
August	204,940.00	253,301.00	273,856.00	304,387.00	360,089.00
September	191,339.00	226,773.00	257,184.00	297,891.00	325,893.00
October	260,569.00	307,447.00	347,757.00	391,399.00	440,715.00
November	290,583.00	385,238.00	423,837.00	442,413.00	510,987.00
December	319,271.00	417,527.00	479,411.00	541,571.00	575,148.00
Total	2,726,214.00	3,457,477.00	3,918,610.00	4,447,167.00	4,977,193.00

From: Ministry of Tourism, Govt of India

In table (2a) to present the foreign exchange earning from international tourists arrival to India during period of 2005-2007. In 2005 Indian economy received foreign exchange earning from international tourists industry was 1.5 thousand million USD.

Table 2a. To present the foreign exchange earnings from international tourists' arrival to India during period of 2005-2007

Unit: US \$ Million

Months	2005	2006	2007
January	532.19	632.43	744.58
February	536.07	594.67	680.41
March	505.74	547.17	636.05
Total	1,574.00	1,774.24	2,061.04

From: Ministry of Tourism, Govt of India

Moreover, in 2006 the India's economy received foreign exchange earning from this industry equal to 1.7 thousand million US Dollar. Finally, the foreign exchange earning from this industry still grew up from 1.7 thousand million USD in

2006 would be 2.06 thousand million USD in 2007. Based on these data have already confirmed again that the international tourism industry of India will become to be the potential industry for future year definitely.

5. THE RESULTS OF VARIOUS TESTS FOR LONG MEMORY PROCESS OR LONG-TERM DEPENDENCE PROCESS

Table 1 shows the results of various tests for long memory process based on R/S Test, Modified R/S Test and GPH Test of India's international tourism market during period of 1981-2007. These countries are international tourism market of India. Fore example, USA, UK, Canada, Germany, France, Japan, Malaysia, Australia and Sri Lanka (These countries are major market of India's international tourism: Ministry of Tourism, Government of India)

Table 1. Results of Various Tests for Long Memory based on R/S Test, Modified R/S Test and GPH Test

Country	R/S Test	Modified R/S Test	GPH Test
USA	2.010*	1.2659	1.4874
UK	2.0402*	1.2838	1.3577
Canada	2.0219*	1.2784	1.5063
Germany	1.1541	1.1392	0.6048
France	1.7879	1.1729	1.0971
Japan	2.1268**	1.3809	1.2209
Malaysia	2.0735*	1.294	1.6528
Australia	2.0369	1.323	1.2145
Sri Lanka	2.1529**	1.4117	1.3119

Form: computed

Null Hypothesis: no long-term dependence or no long memory process. For GPH test, Null Hypothesis: $d = 0$ * :significant at 5% level, ** : significant at 1% level

The test results are summarised in Table 1. For each test, the test statistics and its corresponding statistics significant are given. If the statistics value of R/S Test, Modified R/S Test and GPH Test are significance at 1% level or at 5% level then rejected Null Hypothesis of no long-term dependence or no long memory process in time series data. Otherwise, if the statistics value of R/S Test, Modified R/S Test and GPH Test are not significance at 1% level or at 5% level then accepted Null Hypothesis of no long-term dependence or no long memory process in time series data. The empirical results of long memory process analysis based on both Modified R/S Test and GPH Test can be found that all of international tourism markets of India have not a long-term dependence process in themselves or have not a long memory process in themselves. Otherwise, based on R/S Test can be found that most of international tourism markets of India have a long memory process in themselves except Germany, France and Australia. From various test for long memory process based on R/S Test, Modified R/S Test and GPH Test of India's international tourism market during period of 1981-2007 can not conclude of these test into the same direction. However, the Modified R/S Test and GPH test have already confirmed that the international tourism markets of India have not a long-term dependence process in themselves or have not a

long memory process in themselves. But only one test is R/S Test has already confirmed that the international tourism markets of India have a long-term dependence process in themselves or have a long memory process in themselves except Germany, France and Australia.

6. THE CONCLUSIONS OF RESEARCH, POLICY RECOMMENDATIONS

The research provides various tests for long memory process based on R/S Test, Modified R/S Test and GPH Test to test the India international tourism market during period 1981-2007. The empirical results conclude that most countries in India international tourism market have not a long memory process in among of them. The Long Memory or Long range dependence is meaning that the information from “to day” is not immediately absorbed by the price in the market and investors react with delay to any such information (Bardos, 2008). From above meaning, imply that the international tourism market of India is affected by any information immediately or the international tourism market of India is affected by any information quickly. This result was difference from the results of previous empirical studies of long memory process in international tourism market (Gil-Alana, 2005; Chukiat & Prasert, 2009). If these results can be generalized for future years, then it suggests that both the Indian government sector and the private tourism industry sector of India need to protect the bad information of this industry can not go outside from India to other country. Otherwise, most of them should both develop tourism market of India more and also develop tourism product in India more too. In terms of the tourism market development need to launch an active marketing campaign, promoting India's exclusive culture and natural beauty through every channel especially the internet, keep high quality of accommodation, restaurants, services in tourism market of India as well. In terms of tourism product development need to keep on improving both the quality and management of tourist products in India. Fore example, to develop tourist destinations in India, provide educational of tourism to people in the tourism industry of India and decrease the negative image of tourist destinations in India. Moreover, keeping tourist destinations clean, keeping tourist destinations beautiful, keeping tourist destinations safety and to protect the environment of tourist destinations. The private tourism sector and the India government tourism sector should maintain good management of tourist destinations in India. Such as maintaining the amenities of the tourism products, keeping good accessibility to the tourism products, keeping a good image of tourism products, keeping the right price of tourism products and keeping the competitiveness of tourism products (Chaitip & Chaiboonsri, 2009).

REFERENCES:

- [1]. **Baillie, R.T.** (1996) *Long memory processes and fractional integration in econometrics*, Journal of Econometrics, 73(1), July, pp.5-59
- [2]. **Bardos, S.** (2008) *Academy of Economic Studies - Bucharest Doctoral School of Finance and Banking DOFIN*, Bucharest, July
- [3]. **Campbell, J.Y.; Lo, A.W.; MacKinlay, A.C.** (1997) *The Econometrics of Financial Markets*, Princeton University Press

-
- [4]. **Caporale; Gil-Alana, L.A.** (2002) *Fractional integration and mean reversion in stock prices*, Quarterly Review of Economics and Finance, 42, pp. 599-609
- [5]. **Chaitip, P.; Chaiboonsri, C.** (2009) *Down Trend Forecasting Method With ARFIMA: International Tourist Arrivals to Thailand*, Annals of the University of Petrasani, Economics, 9(1), pp.143-150
- [6]. **Deboeck, G.J. (editor)** (1994) *Trading on the Edge: Neural, Genetic, and Fuzzy Systems for Chaotic Financial Markets*, John Wiley & Sons, Inc.
- [7]. **Embrechts et al.** (1997) *Modelling Extremal Events for Insurance and Finance*, Springer, Berlin
- [8]. **Gil-Alana, L.A.** (2005) *Modelling international monthly arrivals using seasonal univariate long-memory processes*, Tourism Management, 26(6), December, pp.867-878
- [9]. **Giraitis, L.; Kokoszka, P.; Leipus, R.** (2001) *Testing for Long Memory in the Presence of a General Trend*, Journal of Applied Probability, 38(4), December, pp. 1033-1054
- [10]. **Geweke, J.; Porter-Hudak, S.** (1983) *The estimation and application of long memory time series models*, Journal of Time Series Analysis, Vol. 4 pp.221-38
- [11]. **Hurst, H.E.** (1951) *Long-term storage capacity of reservoirs*, Transactions of the American Society of Civil Engineers, 116, pp.770-799
- [12]. **Kirman, A.; Teyssiere, G.** (2002) *Bubbles and long range dependence in asset prices volatilities. Forthcoming*, in Hommes C., R. Ramer and C. Withagen (eds.)
- [13]. **Lebaron, B.** (2001) *Empirical regularities from interacting long- and short-memory investors in an agent-based stock market*, IEEE Transactions on Evolutionary Computation, 5(5), October
- [14]. **Lo, A.W.** (1991) *Long-term memory in stock market prices*, Econometrica, 59, pp.1279-1313
- [15]. **Montanari, A.** (2003) *Long-range dependence in hydrology*, Theory and Applications of Long-Range Dependence, edited by
- [16]. **Mandelbrot, B.B.** (1997) *Fractals and Scaling in Finance*, Springer New York
- [17]. **Mandelbrot, B.B.; Wallis, J.R.** (1969) *Robustness of the rescaled range R/S in the measurement of noncyclic long run statistical dependence*, Water Resources Research, 5:967-988
- [18]. **Mandelbrot, B.B.; Wallis, J.R.** (1969) *Some long-run properties of geophysical records*, Water Resour, Res. 5, pp. 321-340
- [19]. **Mandelbrot, B.B.; Wallis, J.R.** (1969) *Robustness of the rescaled range R/S in the measurement of noncyclic long-run statistical dependence*, Water Resour, 5, pp.967-988
- [20]. **Olan, H.** (2002) *Long memory in stock returns. Some international evidence*, Applied Financial Economics, 12, pp. 725-729
- [21]. **Peters, E.** (1996) *Chaos and Order in the Capital Markets: A New View of Cycles, Prices, and Market Volatility*, New York: John Wiley & Sons, Inc.
- [22]. **Robinson, P.M. (editor)** (2002) *Time Series with Long Memory*, Oxford University Press.
- [23]. **Simonsen, I.; Hansen, A.; Nes, O.M.** (1998) *Determination of the Hurst exponent by use of wavelet transforms*, Physical Review E, 58(3), September, pp.2779-2787
- [24]. **Songsak, J.; Chaitip, P.; Chaiboonsri, C.** (2010) *International Tourist Arrivals in Thailand Forecasting with ARFIMA-FIGARCH Approach*, The Third Conference of Thailand Econometric Society, Chiang Mai, Thailand, 7-8 January
- [25]. **Taqqu, M.S.; Teverovsky, V.; Willinger, W.** (1995) *Estimators for long-range dependence: An empirical study*, Fractals, 3(4), pp.785-798
- [26]. **Wright, J.** (1998) *Testing for a Structural Break at Unknown Date with Long-Memory Disturbances*, Journal of Time Series Analysis, 19, 369-379

STUDY ON IDENTIFYING THE CONSULTANCY NEEDS OF THE MEMBERS OF THE TERRITORIAL PACT AND THE COUNTY PARTNERSHIPS IN THE CENTRE REGION

**ALINA-TEODORA CIUHUREANU, HORTENSIA GORSKI,
NICOLAE BALTEȘ ***

ABSTRACT: *In order to ensure some quality consulting services within the activity “Providing consultancy services to develop applications for European funding with focus on the SOP HRD 2007-2013”, in order to identify the organisations’ consultancy needs, the problems they face in elaborating the financing applications and implementing projects, there has been elaborated, within the PTS, the document “Questionnaire on identifying the consultancy needs of the members of the Territorial Pact and the County Partnerships - Centre”. The questionnaire was sent via e-mail to the member organisations of the Pact and the County Partnerships and also, it has been posted on the web site www.stpcentru.ro, so that all members may have access to it. The questionnaires collected until May, 25th, 2010 from 27 organisations were centralised in an excel format Data base.*

KEY WORDS: *PTS Centre, Territorial Pact Centre, consultancy, project, implementation, European funds, programmes, financing.*

JEL CLASSIFICATION: *M53, M10*

1. PRESENTATION OF THE FIELD AND THEME

The basis for the project “The Establishment of the Permanent Technical Secretariat of the Regional Pact for Employment and Social Inclusion in the Centre Region” has been “The Implementation Framework Document of the SOP HDR”. This project meets the specific objective of the Priority Axis 3 “Improving adaptability of workers and enterprises”. The proposed activities to be carried out under the

* Senior Lecturer, Ph.D., „Romanian-German” University of Sibiu, Romania,
alinaciuhureanu@yahoo.com

Prof., Ph.D., „Romanian-German” University of Sibiu, Romania,
hortensia.gorski@roger-univ.ro

Prof., Ph.D., „Lucian Blaga” University of Sibiu, Romania, baltes_n@yahoo.com

Permanent Technical Secretariat aim to strengthen the administrative capacity of social partners' development of new partnerships for employment and social inclusion and promote the existing ones.

The key Area of Intervention 3.3 "Developing partnerships and encouraging initiatives for social partners and the civil society" supports the development, monitoring, evaluation and review of the Regional Action Plan for Employment and ensures its implementation.

The establishment of the Permanent Technical Secretariat enables to bring at the same table of discussions the state institutions, the private organisations and the civil ones, actively involved in the fields of employment and social inclusion.

Research studies at the regional level, awareness campaigns, the support in the implementation and permanent updating of PRAO, providing support for the development of action plans on encouraging and developing partnerships, developing consultancy services, fundraising, seminars, conferences, work-shops, trainings, improving relationships and communication within the pact and with its outside world etc., are value-added activities.

2. BRIEF HISTORY

The creation of Territorial Pacts was an initiative of the Ministry of Labour, Family and Equal Opportunities, which was launched when developing The Regional Action Plans for Employment and Social Inclusion (PRAO) through the Phare Technical Assistance Project RO 2003/005-551.05.01.04.04.01 "Support of the Ministry of Labour in developing and implementing the employment and training policy for EDIS" (Extended Decentralised Implementation System).

As a result of the technical assistance projects to the Government of Romania, on September 25, 2006, 74 institutions and organizations of the Development Region Centre, among which the Romanian-German University of Sibiu, signed the charter, establishing the Territorial Employment Pact Labour and Social Inclusion in the Central Region (PROIS-C). In Romania, 8 such Territorial Pacts were established. **The Pact Charter** promotes regional employment initiatives to maintain and promote sustainable employment growth, reduce unemployment, fight against exclusion.

The Territorial Pact Centre is a partnership agreement between relevant actors at the regional level for sector employment and social inclusion.

County Partnerships are made up of representative organizations at the county and local level (local authorities, disconcerting services, NGOs, trade unions, employers, clergy, etc.), which are involved in implementing the European development policies and have been established, at the local level, with the stated aim of supporting the pact.

During 2007-2008, either at their own initiative, or having the significant support of the experts in the technical assistance team, various meetings of the Territorial Pact Centre were held. There could have been noticed a permanent interest of organizations for the human resource development issue, but also for the difficulties of correlation and coordination of their efforts.

In September 2009, the Territorial Pact Centre acquires a new dimension with the establishment of the Permanent Technical Secretariat Centre (PTS), a support and advisory body of the PROIS-C members and activities, capable of improving the coordination of actions and projects of the social actors, members of the Pact. The Permanent Technical Secretariat is a strategic project within the Sectoral Operational Programme for Human Resources Development (SOP-HRD), co-financed by the Romanian Government and The European Union.

The project's goal is *to establish the Permanent Technical Secretariat of the Central Region Pact* and to ensure its functionality, in order to support the Centre Region Pact members, in their efforts to increase investments in human capital of the Central Region and to provide the labour force with a high skill level, competitive, dynamic and flexible, making use of the Regional Pact, implementing the Regional Action Plan for Employment and Social Inclusion and facilitating access to the European Social Fund through the Sectoral Operational Programme Human Resources Development.

The target group consists of:

- a) **Direct beneficiaries** (members of the Regional Pact Centre and of the County Partnerships: Alba, Braşov, Covasna, Harghita, Mureş and Sibiu).
- b) **Indirect beneficiaries:** (all institutions and organisations involved in the fields of social employment and inclusion and all the population of the Region Centre).

PTS Centre develops activities through which it supports the establishment and development of partnerships, as well as the development of social partners' administrative capacity, it offers support to the promotion of regional employment policies, it takes part into the process of consulting all factors in fighting unemployment and social inclusion.

With the consultancy that PTS offers to the Regional Pact members, for the implementation of eligible financing within the programmes financed from European funds, as well with the assistance offered throughout the implementation of projects, especially within SOP-HRD 2007-2013, the project complies with "*National Reference Strategic Framework (NRSF) 2007-2013*", which has as priority "to use Structural Instruments to reduce economic and social disparities in Romania and the European Union's member states"

Through the information and communication, professional training and consultancy activities of the PTS, direct and indirect beneficiaries complete and widen their informational resources necessary to the consolidation of their ability to implement the Regional Action Plan for Employment.

PTS aims to establish a general agreement between beneficiaries, in order to develop and implement the employment strategies and policies to maximize new integration opportunities on the labour market.

3. THE OBJECTIVES AND RESULTS OF THE RESEARCH

Objective no. 1: Knowing the type of activity in which organisations are interested to benefit from consultancy offered by the PTS Office

In order to achieve this objective, question no.1 was introduced in the questionnaire. The collected information is presented in table 1.

Table 1. Knowing the type of activity in which organisations request consultancy

		Frequency	Percentage	Valid percentage
Total	27			
Missing system	1			
Valid	26			
	Developing applications for European funding	21	80,8	50,0
	Implementing European funding projects	21	80,8	50,0
Total		42	161,6	100,0

Note: * The total of responses is greater than 27, namely 100%, because the question had multiple answers.

By processing the obtained information, we can state that all responding organisations are interested in the PTS Centre Office to give them consultancy both in elaborating the financing applications from European funds (an option which was stated in a 80,8% percentage of respondents), and in implementing the European funding projects (an option stated in a 80,8% percentage of the organisations). For one respondent (The Chamber of Commerce, Industry and Agriculture Alba), the PTS Centre's consultancy activity has no interest.

As expected, we notice the organisations' high interest in benefitting from consultancy services in implementing projects, given the fact that, unfortunately, there are a lot of uncertainties due to ambiguous provisions, the lack of experience in implementation, the refusal of authorised persons to take responsibility for formulating official responses to the requests made to them etc.

Objective no. 2: Knowing the extent to which organisations are interested to receive advice in elaborating financing applications for other projects and the options on these programmes

Financing programmes are diverse. Organisation members of the Territorial Pact Centre and County Partnerships are mostly public institutions, which is why accessing funds often depends on the community's most important necessities (such as the infrastructure). Another factor which seems to be considered is that of the "easiness" to make the application and implement the project. Regardless of the influencing factors in applying for financing, the PTS Centre team has to be ready to respond to the requests, the consultancy's focus, however, being on the SOP HRD 2007-2013. Starting from these premises, through this research we have tried to discover the extent to which organisations are interested to receive consultancy in developing financing applications for other projects and to discover the options

concerning these programmes. In order to reach this objective, questions 2 and 3 were formulated. The information collected is presented in tables 2 and 3.

Table 2. The level of interest in receiving consultancy for elaborating applications for other projects

		Frequency	Percentage	Valid percentage
Valid	27			
	Yes	22	81,4	81,4
	No	5	18,6	18,6
Total		27	100,0	100,0

Table 3. Options regarding the interest programmes for consultancy

		Frequency	Percentage	Valid percentage
Total	27			
Missing system	5			
Valid	22			
	ROP	10	45,5	10,4
	SOP IEC	8	36,4	8,3
	SOP HRD	19	86,4	19,8
	SOP Environment	6	27,3	6,3
	PSOP Transport	2	9,1	2,1
	ACD POS	10	45,5	10,4
	NRDP	3	13,6	3,1
	OP Fishing	2	9,6	2,1
	Total structural funds*	62	281,8	62,5
	Socrates	3	13,6	3,1
	Leonardo da Vinci	5	22,7	5,2
	Total Life Long Learning*	8	36,3	8,3
	A. Urban Green Spaces	4	18,2	4,2
	B. Natural Protected Areas	4	18,2	4,2
	C. Europe for citizens	8	36,4	8,3
	D. Financial instrument for civil protection	2	9,1	2,1
	E. Technical assistance instrument for energetic efficiency	4	18,2	4,2
	F. EuropeAid Programme	2	9,1	2,1
	G. Erasmus for Young Entrepreneurs	4	18,2	4,2
	Total other financings*	26	118,2	29,2
	GENERAL TOTAL*	96	436,3	100,0

Note: * The total of responses is greater than 22, respectively than 100%, because the question has had multiple answers.

The obtained information reveals the fact that most of the organisations (81,4%) are interested in receiving advice to elaborate financing applications for other

projects, while 18,6% of them do not show any interest. This latter percentage should not be considered a warning for the lack of interest because, by analysing the information in the data base accomplished when the questionnaires were collected (through the correlation of questions 2 with 1), it is revealed that organisations which are not interested in receiving advice for preparing the financing applications for other projects have opted for consultancy in implementation. Therefore, these organisations are already implementing projects and currently do not have the necessary resources (financial, human, logistical) to access new European funds.

By processing the data presented in table 3, we conclude:

- with regard to the **structural funds**, most of the organisations (86,4%, respectively 22 organisations) state that they are interested in receiving advice to access SOP HRD funds. At a considerable distance (45,5%) we have the organisations which are interested in receiving advice for preparing the financing applications for the SOP and SOP HRD programmes and 27,3% are interested in consultancy for the SOP Environment programme. The SOP Transport, NRDP, OP Fishing programmes have also been mentioned, the percentage of the organisations member of the Territorial Pact and the County Partnerships interested in the consultancy activity developed by the PTS Centre being smaller;
- regarding „**Life Long Learning**”, Leonardo (22,7% of organisations) and Socrates (13,6%) programmes were mentioned.
- for „**Other financing**”, the biggest percentage is held by the programme “Europe for citizens”, mentioned by 36,4% of the respondents. Respondents were also interested in receiving consultancy within other financings also for the programmes “Technical assistance instrument for energetic efficiency”, „Erasmus for Young Entrepreneurs” etc.

Objective no. 3: Knowing the opinion on the difficult sections in filling in the financing application form

It is not enough to just have a good idea for a project. We should fill in correctly the financing application form, in accordance with the specific provisions of each guideline. In order to know which sections show difficulties in filling in the financing application form, question no.4 was introduced into the questionnaire, the gathered information being presented in table 4.

It can be noticed that the difficulties that member organisations of the Pact and County Partnerships Centre have in filling in the financing application forms are distributed as follows: for the majority of the organisations (65,2%) one of the difficulties lies in the integration of horizontal objectives, followed, at a relatively small distance, by defining the indicators of accomplishment of project (52,2% of the organisations) and the project’s implementation methodology (43,5%).

An approximately equal percentage in the respondents’ opinion is represented by three other difficulties, namely: establishing the general objective and of the specific objectives (for 30,4% of the organisations), describing the context and project’s justification (difficulty stated by 34,8% of the organisations), defining and planning the project’s activity (for 30,4% of the organisations). With regard to the

formulation of the project's results, it can be noticed that the percentage of this difficulty is not that big, being stated by 8,7% of the organisations.

Table 4. Difficulties in filling in the financing application form

		Frequency	Percentage	Valid percentage
Total	27			
Missing system	4			
Valid	23			
	A. Allocating the project idea on a programme/axis/major field of intervention	5	21,7	7,6
	B. Establishing the general objective and the specific objectives	7	30,4	10,6
	C. Describing the context and project justification	8	34,8	12,1
	D. Defining and planning the project's activities	7	30,4	10,6
	E. Formulating the project's results	2	8,7	3,0
	F. Defining indicators of achievement of project	12	52,2	18,2
	G. Project implementation methodology	10	43,5	15,2
	H. Horizontal objectives implementation	15	65,2	22,7
	Total*	66	286,9	100,0

*Note: * The total of responses is greater than 23, respectively than 100%, because the question has had multiple answers.*

In our opinion, having on top of the positions the difficulty “integrating the horizontal objectives” is somehow a surprise for us and will be a priority in the consultancy activity of the PTS.

Objective no. 4: Knowing the opinion on the projects' implementation stages where organisations need consultancy

If elaborating an application form may sometimes seem easy, things are different when talking about implementation.

Planning, activity monitoring, reports, financial management are only few of the aspects that should be carefully considered. From this perspective, the PTS Centre's consultancy activity should also aim the projects' implementation, the respondents actually stating that they are interested in and need it.

But, in order for the consultancy activity to be operational, another objective of the research consisted of knowing the opinion on the projects' implementation stages

within the organisations that need support. The obtained information is presented in table 5.

Table 5. Implementation difficulties and consultancy needs

		Frequency	Percentage	Valid percentage
Total	27			
Missing system	4			
Valid	23			
	A. Public acquisitions	13	56,5	16,3
	B. Information and project publicity	4	17,4	5,0
	C. Pre-financing	9	39,1	11,3
	D. Types of eligible expenses and covering vouchers	14	60,9	17,5
	E. Reimbursements	17	73,9	21,1
	F. Technical-financial reports	10	43,5	12,5
	G. Changes to the financing contract	13	56,5	16,3
	H. Other aspects	0	0	0
	Total*	80	347,8	100,0

Note: * The total of responses is greater than 23, respectively than 100%, because the question has had multiple answers.

It can be noticed that the majority of organisations (73.9%) say they need consultancy within the reimbursement stage. Moreover, 60,9% of the organisations claim they one of the problems for which they need advice is that of eligible expenses and covering vouchers, followed, at a relatively small distance, by the aspect regarding the changes to the financing contract and the public acquisitions (both having a percentage of 56.5% among the organisations).

Another problem that requires consultancy is that of the technical-financial reports (for 43.5% of the organisations) and the respondents seem to best cope with the information and project's publicity chapter where only 17.4% claim they would require consultancy.

As a general conclusion, we believe that the hierarchy of these difficulties was somewhat predictable, reimbursement being an issue that applicants are currently facing. We mention that knowing both the aspects related to the development of the financing application forms, and the problems occurring in the projects' implementation is beneficial for the consultancy activity of PTS Centre, the members of the team mainly focusing on the organisations' requirements.

Objective no. 5: Knowing the SOP HRD AP and DMI for which consultancy in implementation is required

A final objective of the research is to know the priority axes and the major intervention fields of the SOP HRD for which organisations require consultancy in the

projects' implementation. To achieve this objective, question no. 5 was formulated within the questionnaire, and those results are shown in table 6.

Table 6. AP SOP HRD AP and DMI for which consultancy in implementation is required

		Frequency	Percentage	Valid percentage
Total	27			
Missing system	14			
Valid	13			
	Axis 1, DMI 1.3.	1	7,7	4,2
	Total Axis 1	1	7,7	4,2
	Axis 2, DMI 2.3.	2	15,4	8,3
	Total Axis 2	2	15,4	8,3
	Axis 3, DMI 3.1.	4	30,8	16,7
	Axis 3, DMI 3.2.	2	15,4	8,3
	Axis 3, DMI 3.3.	2	15,4	8,3
	Total Axis 3	8	61,5	33,3
	Axis 5, DMI 5.1.	4	30,8	16,7
	Axis 5, DMI 5.2.	2	15,4	8,3
	Total axis 5	6	46,2	25,0
	Axis 6, DMI 6.1.	2	15,4	8,3
	Axis 6, DMI 6.2.	3	23,1	12,6
	Axis 6, DMI 6.3.	2	15,4	8,3
	Total axis 6	7	53,8	29,2
	GENERAL TOTAL *	24	184,8	100,0

Note: * The total of responses is greater than 13, namely than 100%, because the question has had multiple answers.

After processing the collected information, we may conclude:

- **Priority Axis 3** holds the highest percentage among organisations seeking for consultancy (61,5%), the major fields of intervention upon which there are being implemented projects that require consultancy being the following: DMI 3.1 (30,8%), DMI 3.2 (15,4%), DMI 3.3 (15,4%);
- The second position as percentage of the organisations that require consultancy in implementation is held by **Priority Axis 6** (with a percentage of 53,8% of the organisations) within which consultancy is required by 15,4% of the organisations for DMI 6.1 and DMI 6.3 and 23,1% of the organisations for DMI 6.2. At a relatively small distance there is the **Priority Axis 5** mentioned by 46,2% of the organisations with major fields 5.1 (for 30,8% of the organisations) and 5.2 for 15,4% of the organisations.
- A smaller percentage in asking for PTS Centre support for the implementation can be noticed for AP 2, DMI 2.3 for 15,4% of the organisations that have answered the questionnaire and AP 1, DMI 1.3 for a percentage of 7,7 of the respondent organisations.

As a general conclusion, we may state that most often, the consultancy activity for the project financed by SOP HRD can be based on the Priority Axes 3, 6 and 5.

REFERENCES:

- [1]. **Gorghiu, L.M.; Gorghiu, G.; Stan, M.F.** (2009) *Managementul proiectelor - o abordare orientată pe aplicații*, Editura Bibliotheca, București
- [2]. **Simionescu, A.** (2008) *Managementul proiectelor*, Editura Economică, București
- [3]. **Trevor, L.Y.** (2008) *Managementul proiectelor de succes*, Editura Rentrop&Straton, București
- [4]. *Questionnaire on identifying the consultancy needs of the members of the Territorial Pact and the County Partnerships - Centre* [Online], Available at <http://www.stpcentru.ro/index.php?id=utile>, [Accessed 25 june 2010]
- [5]. *Sectoral Operational Programme Human Resources Development 2007-2013*, [Online], Available at http://www.fonduri-structurale.ro/Document_Files/resurseumane/00000030/rcxgy_POSDRU_engleza.pdf

THE IMPORTANCE OF “SPEED-DATING” FOR ROMANIAN ENTREPRENEURS

MĂDĂLINA-ADRIANA COSTIN, MIRELA BUCUREAN *

ABSTRACT: *A country's economy largely depends on the number of new companies created each year. The entrepreneur is a person who has an important role in the creation of new businesses, and for this he must know all the pros and cons of launching a new product or service in the market and need to know how to choose the best business partners. To help entrepreneurs meet and exchange ideas with other entrepreneurs, to help them find potential investors in various business ideas or just to help them see how other people think, were set up business speed- dating in the event called Business Networking, which took place in Oradea city. This paper presents the result of a questionnaire that we applied on a number of thirty entrepreneurs that participated at the speed-dating meetings from Bihor County and the advantages and opportunities of attending such meetings.*

KEY WORDS: *speed-dating; entrepreneurs; meetings; advantages; opportunities*

JEL CLASIFICATION: *M14*

1. THE ROLE OF ENTREPRENEURS IN ECONOMY

The quality of management process, the number of new enterprises created, the results obtained, the competitiveness of organizations, depend on the qualities and skills of managers, entrepreneurs and the percentage of people who have the necessary qualities and tend to become managers or entrepreneurs.

We all know that entrepreneurs are persons who have possession of a new enterprise, or business idea and assume significant accountability for the inherent risks and the outcome. Entrepreneurs occupy a central position in a market economy. That's why entrepreneurs represent the economy's engine, activating and stimulating all economic activity.

* *Assist. Prof., University of Oradea, Romania, mcostin@uoradea.ro
Senior Lecturer Ph.D., University of Oradea, Romania, mbucurean@uoradea.ro*

For obtaining an economic success of countries all over the world, it is necessary that entrepreneurial instinct is encouraged and rewarded. The prosperity of a country can be gained only by rewarding and encouraging entrepreneurial activity because it is the entrepreneurs and their businesses that are the critical determinant of the level of growth, prosperity, opportunity, and success, in any economy. The most entrepreneurs a country have the most successful and dynamic it becomes, that's why they need to be motivated to develop their activities efficiently. Because of their work, entrepreneurs are unique because they are able of bringing together the money, manufacturing facilities, skilled labor, raw materials and all the things required to produce a product or service and they're also capable of controlling and arranging the marketing, distribution and sales of that product or service.

Other important characteristics of entrepreneurs are: they are future oriented and optimistic, they are capable to risk all their resources in order to obtain profit, they really believe that success is something possible to meet, they are willing to try many different strategies to achieve their goals, they're flexible, fast moving, they immediately see a new opportunity and when receiving a new information, they quickly try to adapt it for their benefit.

The role of the entrepreneurs in each country's economy can be represented like this:

Table 1. The role of the entrepreneurs in each country's economy

INNOVATION	PROVIDING CHOICE	PROVIDING JOBS
- entrepreneurs use the opportunities they observe	- entrepreneurs add goods and services to the marketplace	- entrepreneurs hire workers for their businesses.
- entrepreneurs create new goods and services	- entrepreneurs offer variety	- entrepreneurs consume resources, thus providing jobs in the industries that supply those resources.
- entrepreneurs are able to improve the existing products or services	- entrepreneurs design different approaches to familiar problems	
Entrepreneurs help the economy grow.		

2. HOW CAN WE DEFINE THE SPEED-DATING PROCESS?

Speed-dating programs represent a special kind of meeting that generally involve entrepreneurs who discuss to each other one at a time for a short interval (usually five minutes) and then moving on to the next entrepreneur in line. The entrepreneurs sit across from one another and after the set time period the outside circle of people gets up and moves in one direction around the circle until everyone has met.

Speed-dating programs are showing up all around the world. These events tend to be a fun, exciting and effective way to make a lot of initial connections in a very different environment from the standard business meetings.

After attending such events, after meeting a lot of business people, after exchanging experiences, entrepreneurs can be seen one for another a great tool for a strong and productive partnership. Speed-dating is a great way to meet other business professionals in a short period of time. At the end of the event participants submit a list of persons they would like to meet again.

The key to making a speed-dating useful is to take other entrepreneurs contacts and develop them over time into credible relationships that lead to profitable referral partners.

A speed-dating can refer to different themes such as: innovation, creativity, development, economy growth, new technology and so on.

For example, a speed-dating for innovation has the mission to connect large companies with externally developed sources of technologies. It needs to be about developing relationships between serial entrepreneurs and corporate leaders. It's a format that allows a wide spectrum of entrepreneurs to sit across the table from corporate leaders and hopefully develop some relationships and collaborations that turn into processes of innovation.

Speed-dating organizers try and do their best to match potential partners based on their interests and expose companies to as many potential funders as possible.

One of the advantages of attending speed-dating is that provides an opportunity to interact with carefully selected entrepreneurs who can bring value to ones ongoing innovation efforts, it involves a low risk and it provides an interaction that allow participants to look beyond the written technology descriptions. The environment allows all participants to explore collaboration that can transform into strong relationships. This kind of event provides unique value because it involves face to face interaction and we know that relationships are an important aspect of open innovation and creativity.

Speed-dating is highly recommended to all entrepreneurs because they represent a real help to build relationships and promote collaboration.

3. THE ADVANTAGES OF SPEED-DATING

3.1 The advantages of speed-dating for companies

We can admit that of all the ways companies and entrepreneurs connect and develop, speed dating may be the most unusual, but so far very effective in identifying opportunities that they might not uncover otherwise. Speed dating helps them start relationships that may well grow into licensing agreements and new products. Participants, through this application, will defeat the original deductions that may appear in the speed-dating events, will be able to analyze the strengths and areas to be improved and will have the opportunity to make their first steps towards effective meetings under the guidance of experts.

When managers attend speed-dating, the benefits for the organization can be the following:

- Meeting a selected group of entrepreneurs can become an important advantage by knowing and applying innovations and new technologies in realizing the products/services;
- Being informed about new technologies, companies can choose the best solution for their specific needs in realizing and selling their goods;
- Managers can participate in the event and interact directly with creative, innovative and technology providers in a non-confidential manner and where they can address as many questions they want.

3.2 The advantages of speed-dating for entrepreneurs

The benefits of attending a speed-dating for entrepreneurs can be considered the following:

- Entrepreneurs exchange experience with managers and other entrepreneurs and also give and receive advice to/from them;
- Relationship-building can be provided by face to face interaction and encourage collaboration;
- Because entrepreneurs do not have much time available, by attending speed-dating they will save time;
- This process represents a good marketing method.
- Helps entrepreneurs to identify the steps they could take immediately to operate their business more efficiently and low cost;
- Helps entrepreneurs realize that "Failure is not an option" and there is always a solution for any problem.
- Shows the opportunities that an entrepreneur should see when starting over.
- Gives an idea of reinventing the business (if necessary).

4. Is speed-dating process useful for Romanian entrepreneurs?

In order to find out the answer to this question, we applied a questionnaire on a number of thirty Romanian entrepreneurs that attended speed-dating two times in Oradea city, Bihor County.

In February 2010, in Oradea city took place the first special meeting between all entrepreneurs interested in the chance to identify, in five minutes, new business opportunities.

During the speed-dating there are established two groups of participants who have five minutes to present their business. After the five minutes, the partners change, so that all participants will have the opportunity to exchange business cards between them and identify concrete opportunities for business collaboration in the area in which they operate.

Due to the positive entrepreneurs' feed-back on the first edition, organizers decided to help them again to save the time businessmen needs to establish contacts. Speed-dating has generated nearly 250 business meetings and over a hundred participants really cooperated in business. Because the February edition proved to be a real success, bringing together an impressive number of entrepreneurs from Bihor

County and beyond, organizers reorganized the event in June. The established rules were simple and productive. Every businessman spend five minutes at the same table, face to face with another entrepreneur, time period in which to exchange business cards and even to form an opinion about the other, in the event of a business.

Although entrepreneurs and businesses men are in constant time crisis, this event is considered a special opportunity for all the participants.

According to organizers, the event was attended by representatives of the IT, insurance, transport, banks and notaries.

In order to find out if Romanian entrepreneurs consider that speed-dating is a useful process, we applied a questionnaire to a number of thirty entrepreneurs. Entrepreneurs had to answer using "YES" or "NO" to each of the questions. The result will be presented as follows.

Question	Number of entrepreneurs that used "YES"	Number of entrepreneurs that used "NO"
1. Did you find out about speed-dating from another entrepreneur?	12	18
2. Did you attend both of the events that took place in Oradea?	17	13
3. Do you find useful for your business attending speed-dating?	30	0
4. After exchanging business cards with other entrepreneurs did you call someone?	17	13
5. Did you build any relationship/collaboration after these events?	15	15
6. Did you get any help from specialists in the domain that you were interested in?	17	13
7. Did this event help you to save time by meeting a lot of people in the same time?	20	10
8. If this event would be organized each week, would you participate?	30	0
9. Do you recommend this kind of meetings to other entrepreneurs or managers?	30	0
10. In your opinion are sufficient the five minutes to build a strong partnership?	0	30
11. Do you consider that after meeting other entrepreneurs it is strongly necessary to maintain the relation before proposing collaboration?	30	0
12. If you were one of the organizers would you change anything in speed-dating process?	11	19
13. Did you find any opportunities by attending speed-dating?	25	5
14. Did you try to make yourself memorable when attending the meeting?	27	3
15. Were you brave enough to ask provocative questions to the persons you talked with?	20	10

As we can see, Romanian entrepreneurs find speed-dating a very benefic process that helps to save time, to meet other entrepreneurs and build relationships based on trust and collaboration. Another prove of the speed-dating usefulness is that if the event would be organized weekly, most of them would attend.

The thirty entrepreneurs that we interviewed had to arrange some tips for other entrepreneurs that would like to attend a speed-dating event, in the order of importance that they considered:

1. Speed-dating helps entrepreneurs in building relationships and trust and seeing how they can help others.
2. Before attending speed-dating, entrepreneurs have to ask themselves what their goals are and they will join groups that will help them getting what they are looking for.
3. Participants have to visit as many groups as possible so that the discussions can be more effective.
4. Entrepreneurs need to have a clear understanding of what they do and why, for whom, and what makes they are doing it special or different from others doing the same thing.
5. Entrepreneurs must participate to all the discussions they can, they need to stay visible and give back to groups that have helped them.
6. Participants have to become known as a powerful resource for others. When they are known as a strong resource, people remember to turn to them for ideas, suggestions, observations, corrections, advice, names of other people, etc.
7. When attending speed-dating, an important thing is to ask open-ended questions in speed-dating conversations. This means questions that ask who, what, where, when, and how as opposed to those that can be answered with a simple yes or no. This form of questioning shows listeners that one is interested in them and opens up the discussion.
8. Entrepreneurs have to be able to articulate what they are looking for and how other entrepreneurs or managers may help them.
9. After the speed-dating, entrepreneurs should call people they meet who may benefit from what they do and vice versa. During the call, entrepreneurs should express that they enjoyed meeting them, and ask if they could get together and share ideas.
10. In order to attract more people on future events, entrepreneurs have to share the experience with others, explaining which are the advantages and the benefits of attending a speed-dating both for the organization welfare and for day to day entrepreneur's activity.

4. CONCLUSIONS AND RECOMMENDATIONS

Critics of speed dating also point out that it emphasizes on first impressions, which may not necessarily be indication of future collaborations. It is less probable that meeting someone once is enough to bring entrepreneurs profitable business because only by repeated contacts they can obtain that.

We can give some recommendations in order to transform the meetings into successful ones. Here are five tips on how Romanian entrepreneurs can make them visible when meeting other entrepreneurs face-to-face:

- Try to be distinctive when dressings by wearing something that help people distinguish you from the crowd.
- Try to tell an interesting story about you, your business, your products or services and so on.
- Be engaged and aware of the other entrepreneurs you interact with and be involved in all the discussions you have: maintain eye contact, listen well, respond promptly, etc.
- Don't be afraid to ask provoking questions.
- Try to contribute into a lot of group conversations by saying something really smart so that you can remain memorable in their minds.
- Talk about your business, how is your style of working, what kind of products/ services do you offer and don't forget to make a good impression because the impression that you make on people is the one they will have of your business.

As a conclusion, entrepreneurs are the main actors and a symbol to any country's economy because of the characteristics they have: innovators, leaders, taking moderate risk, independents, creators, originals, optimistic, focused on results, flexible, etc, that's why all the events such as speed-dating are benefic in order to develop these skills.

REFERENCES:

- [1]. **Allen, S.** (2010) *Business Networking for entrepreneurs* [Online], Available at: http://entrepreneurs.about.com/od/businessnetworking/Business_Networking_for_Entrepreneurs.htm, [Accessed 28 June 2010]
- [2]. **Burdus, E.** (2005) *Tratat de management*, Editura Economica, Bucuresti
- [3]. **Docherty, M.** (2007) *Speed-dating for innovation* [Online], Available at: http://venture2.typepad.com/innovationnet/2007/05/speeddating_for.html, [Accessed 28 June 2010]
- [4]. **Elizabeth, M.** (2008) *Meeting entrepreneurs* [Online], Available at: http://www.wsicorporate.com/article/Meeting_entrepreneurs, [Accessed 28 June 2010]
- [5]. **Griffin, C.** (2007) *On the slopes-speed dating for entrepreneurs* [Online], Available at: <http://www.masshightech.com/stories/2007/04/09/newscolumn3-On-the-slopes-Speed-dating-for-entrepreneurs.html>, [Accessed 28 June 2010]
- [6]. **Lister, L.** (2006) *Entrepreneurs - Meetings - Make Them Effective And Profitable* [Online], Available at: <http://ezinearticles.com/?Entrepreneurs-Meetings-Make-Them-Effective-And-Profitable&id=303065>, [Accessed 28 June 2010]
- [7]. **Misner, I.** (2007) *Speed Networking and beyond* [Online], Available at: <http://www.entrepreneur.com/marketing/networking/article180954.html>, [Accessed 28 June 2010]
- [8]. **Niculescu, O.; Nicolescu, C.** (2008), *Intreprenoriatul si managementul intreprinderilor mici si mijlocii*, Editura Economica, Bucuresti

- [9]. **Sachdeva, S.D.** (2007) *New start: speed dating for entrepreneurs*, [Online], Available at: http://timesofindia.indiatimes.com/Deep_Focus/New_start_Speed_dating_for_entrepreneurs/articleshow/2223652.cms, [Accessed 28 June 2010]
- [10]. **Tracy, B.** (2005) *The role of the entrepreneur* [Online], Available at: <http://www.entrepreneur.com/startingabusiness/startupbasics/article78478.html>, [Accessed 28 June 2010]
- [11]. **Vidican, C.** (2010) *Afaceristii se intalnesc la "speed-dating"*, Adevarul de seara, 3 iunie, p. 7
- [12]. **Wray, R.** (2010) *Clearly So matches businesses through speed dating* [Online], Available at: <http://www.guardian.co.uk/business/2010/jan/24/businesses-matched-through-speed-dating>, [Accessed 28 June 2010]
- [13]. **Stavros Institute** (2010) *The role of the entrepreneur in the economy* [Online], Available at: <http://www.stavrosinstitute.org/Assets/PDFs/The%20Role%20of%20the%20Entrepreneur.pdf>, [Accessed 28 June 2010]
- [14]. **Venture 2 Inc.** (2008) *Innovation speed dating* [Online], Available at: <http://www.venture2.net/UserFiles/File/Venture2%20Innovation%20Speed%20Dating%20Overview%209-19-08.pdf>, [Accessed 28 June 2010]

MODERN APPROACHES IN THE INDUSTRIAL MAINTENANCE MANAGEMENT - THE CONDITIONAL TYPE MAINTENANCE

**IOAN CUCU, CIPRIAN IOAN CUCU,
MARIA-ELENA BOATCĂ ***

ABSTRACT: *Modern solutions from the industrial type management consist in using informational systems, sustained by means of measure and control of the main equipments from the technological flow. The paper presents several solutions in applying management in the conditional type maintenance activity. Conditions for a optimal work flow specific to this type of maintenance assume covering several analysis phases and the systematic examination of the range of means of measure and control. Application of Informatics in the conditional type maintenance also implies using methods for deploying systems of technological equipments work pursuit, taking into consideration the complexity of the means used and the deployment and using costs.*

KEY WORDS: *maintenance; informatics; systems; management; costs*

JEL CLASSIFICATION: *L00*

1. THE PREREQUISITES OF CONDITIONAL TYPE MAINTENANCE APPLICATION

The prerequisites for using the conditional type maintenance of the industrial technological equipments, presume two main conditions:

- on the one hand, the issue of existing the technical possibilities of application, respectively, of the means of grasping representative signs for an evolutionary degradation of a certain type of technological equipment, signs that should manifest through a slow evolution in time

* *Assoc. Prof., Ph.D., University of Petroșani, Romania, cucuiosan2002@yahoo.fr
Assist. Prof., "1 Decembrie 1918" University of Alba Iulia, Romania
Student, University of Petroșani, Romania, boatcaelena_2009@yahoo.com*

and which are the basis for identifying the nature of that degradation and its localization;

- on the other hand, conditions of economical profitability for such a step are required, respectively, conditions for introducing a system that would insure the continuous measuring for certain functioning anomalies in the absence of imperative security criteria.

For this, studying the technical feasibility for application of the conditional maintenance is necessary in order to establish if resorting to informatics' means of deployment for a continuous supervision system represents the most efficient solution.

In the state of designing an informational system, which must suit the requirements of applying the conditional maintenance, it will refer to the fact that the system which will be proposed should represent an efficient instrument for investigating the quality of equipment working and should allow at the same time the improvement of reliability, maintainability and, respectively, their operative reserve.

Thus, the proposed system must be a mean through which it will be possible to systematically investigate the working state of equipments on the basis of specialized devices (transmitters) through which the control and measurement of the proposed parameters for conditional maintenance is guaranteed.

The management applied in industrial undertakings [1] assumes, generally, using informational systems with the role of means of measurement and control of output appliances and technological equipments, because within using these may be insured the solution for two problems, namely:

- the management of the process referring to the output activity, respectively of the production technology
- anomaly detection for the technological equipments and facilities, specific to the conditional maintenance function.

These systems are named "integral maintenance systems" from the viewpoint of the maintenance management, and the great firms from developed countries use such systems specialized in activity fields. For example, Citroën works from Rennes uses for the XM type cars assembly section the SIMONA model (Simens monitoring system for automation).

Generally, such systems can insure:

- immediate establishment of work equipments faults and conveyance of data to the output activity management dispatching;
- possibility to inform about the nature and causes of the disturbance;
- conveyance of the pieces of information to the qualified person who can insure maintenance;
- obtaining data from systematic preventive maintenance;
- visualization of the faults in the synoptic form at the dispatching of the unit, that can warn through the system peripherals from the maintenance shop or directly the person responsible for the maintenance of the equipment out of order.

2. CONDITIONAL TYPE MAINTENANCE DEFINING MODEL

As it is shown in the article „Using Expert Systems in the Management of Industrial Equipment Maintenance” [3], these systems present a major interest for the industrial undertakings in pursuing functioning key equipments, because they may offer data referring to historical events regarding stops or disturbances appeared for the respective equipments precisely since they were put into service. In fact, this represents the use of the experience obtained in the maintenance of these equipments by stocking in the informational system database the historical data from the analysis for the work of the equipments been in productive use in the moment of the analysis. These analyses and experiences enable establishment of the reliability database of the technological equipments necessary for the data marshalling process of maintenance.

Depending on the likely or possible advantages of the conditional maintenance concerning systematic maintenance or the interest in looking for, by priority, the application of the most efficient methodology to perform the maintenance for the equipments for which drops must be avoided, defining a conditional maintenance policy [2] supposes covering several phases of the analysis, this methodology being shown schematic in figure number 1.

From the analysis of the conditional maintenance defining model, shown in figure 1, result:

- In the first stage, the stocktaking of fundamental technological equipments will be fulfilled from the viewpoint of two categories of problems:
 - staff and working equipments security
 - regarding the output waste for the undertaking in the case of disturbance of these equipments.
- As part of the second stage, the critical elements of these essential equipments will be identified; thus, from the analysis laws of distribution of disturbances for technological equipments will result that a number of critical elements are mainly responsible for most of the drops of these equipments. These drops will be possible to avoid by introducing the data marshalling in the use of conditional type maintenance. Further on, it goes forward to establishing the most likely drops, proceeding from extant likelihood estimates and from the unavailability cost that will result in the case of application of corrective type maintenance.
- In the third stage, the type of disturbance will be examined. Thus, we have:
 - progressive disturbance, case in which the conditional type maintenance can be taken into consideration; this requests existence of the possibility to pursue a slow enough evolutionary degradation for which there is an auspicious moment for a repair as far as the working state of the equipment. This evolution duration of the identified parameter represents an important element of the decision to establish the maintenance policy;

- abrupt disturbance, case in which we have only one alternative, respectively, to apply a corrective type maintenance.
- In the fourth stage, there will be worked out a list of flaws depending on the possible modalities to go out of order of equipments, classified in the order of the disturbance hazard defined through the product between “disturbance probability” and “unavailability cost”.
- In the final stage, the faults to which is to be applied the conditional type maintenance will be established. For this, there will identify for each of the established faults if significant and noticeable symptoms exist or not, as well as means of control and measure of the beginning of the degradation or disturbance of the equipment, case in which the conditional type maintenance can be applied. These establishments and data can result from the analysis of each fault and of the informational system of maintenance extant or suggested for deployment.

Application of the conditional type maintenance [4] also assumes the systematic investigation of the range of means of measurement and control extant in internal production or on the external market. These means are generally known under the name of “Box of instruments” of application of conditional type maintenance.

Concerning the deployment cost of an informational system for conditional maintenance, first of all it depends on the number and cost of the means of technical and informational supervising, as well as on other factors, such as: the period of service of the means of measure and control, the number of critical elements supervised for a certain equipment; possibilities of upkeep for informational means etc. Thus, we noted with “g” the cost to put into practice the conditional type maintenance. This cost, that includes: the acquisition cost and the exploitation one, has the nature of a global cost of use of a control and measure device.

Within the framework of the analysis a comparison between the average costs of the three types of maintenance noted with c_1 , c_2 and c_3 was achieved, proceeding from the analysis scheme from figure 1. The calculus relations of the three costs are:

$$c_1 = p + P \cdot f(t)/m(t) \quad (1)$$

$$c_2 = p + g/k \cdot MTBF \quad (2)$$

$$c_3 = p + P/MTBF \quad (3)$$

where:

p – the direct cost of a preventive type maintenance operation

P – the supplementary cost in case of fault

$m(t)$ – average equipment work duration

g – the cost to put into practice the conditional type maintenance

k – operation time average adjustment coefficient (≈ 1)

MTBF – good working time average

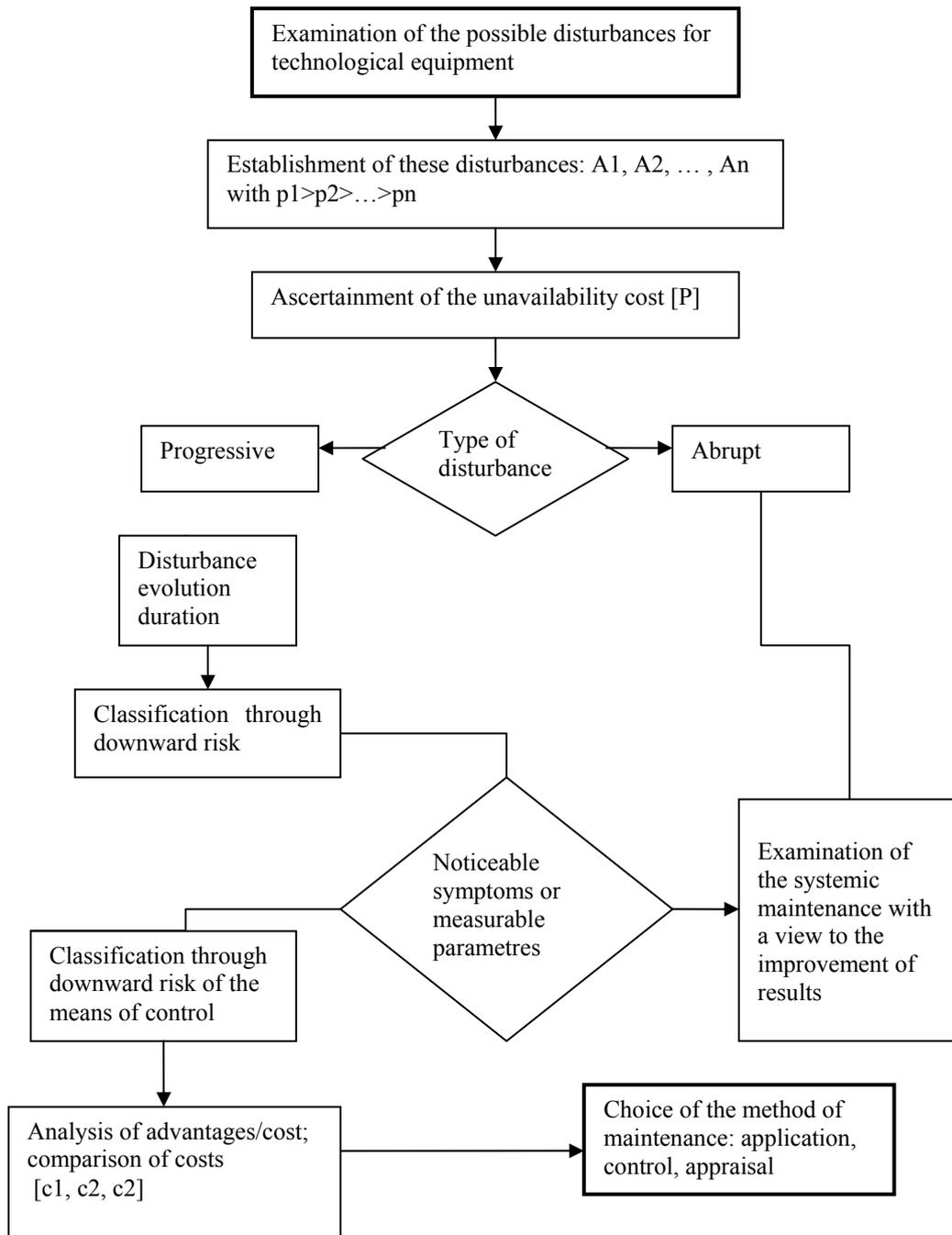


Figure 1. Model of analysis for the application of the conditional type maintenance

3. ROLE OF INFORMATICS IN THE CONDITIONAL TYPE MAINTENANCE

Data marshalling of the process of essential technological equipments work pursuit forms a fundamental change of the role of the operating staff; this change mainly consists in supervising and controlling the proper working of the respective appliances and equipments by pursuing the indications (respectively the pieces of information) conveyed by the measure and control devices fixed on these. At the same time, both the operating staff and the equipment and the appliances maintenance one will be trained regarding the correct interpretation of these pieces of information in accordance with the instructions established by the team of experts who realized the system deployment.

On these terms, the operator of data marshaled and automated equipments must be capable to note the beginning of the degradation of equipments that are found in his responsibility area. This, in accordance with the principles proposed by the Japanese method of maintenance type TMP [7] considers that the role of the operator, besides the one to pursuit the devices for measure and control of automatized equipments, is also the one of a “human pick-up” who has multiple means of control and decision, thanks to the five senses that grant the human’s own possibility of analysis and synthesis.

Another possibility [5] to perform the conditional type maintenance for technological equipments is the one of equipment inspection, which supposes performing recurrent calls for ware check and represents at the same time a mean of control and detection of the anomalies in the work of equipments. This manner of accomplishment of the conditional maintenance is recommended for the equipments with a reduced degree of complexity for which the work anomalies that have a appearance frequency lower than the one established for performing the control, but in this case, too, resorting to informational systems will be beneficent, because in this way a centralization and stocking of the data registered following the checks is insured.

Thus, all the data are obtained from the simplest means of control and automation, like, for example: the measurement of power absorbed by the main electric driving engine or the measurement of the pressure from a hydraulic circuit, to the most complex means which are found fixed on the equipments whose work is totally or partly assisted by computer. Within the framework of this process several transmitters (connected with the informational system of maintenance insurance), through which a permanent control of the parameters for good work is realized, to which data resulted following the inspections can be added. All these measures build the main (key) technological equipments supervising process, named “monitoring”.

Also, a modality to act in the direction of the deployment of a technological equipments supervising system [6] results from the choice between <to do> and <to do – to do> (< faire> et <faire – faire>), respectively to proceed to the company deploying a measure and control system for technological equipments, through its acquisition by the company (variant presented until today), or, on the contrary, to appeal to a society specialized in performing measurements and controls for the respective equipments by using its own apparatus and staff. This modality is used by the enterprises that do not

have neither perfected apparatus and devices and specialized staff for using and interpreting recordings, nor the financial resources necessary for such an investment.

Application of Informatics in the conditional type maintenance of technological equipments must begin with the stocktaking and analysis of the solutions possible to be applied, solutions which can be classified in terms of the application costs, of obtaining data necessary for the <elimination> of diverse causes of disturbance of the critical elements that form the respective equipments. For performing such a stocktaking and analysis we propose a tabular model which is presented under a general form in table 1.

Table 1. Matrix of selection and analysis of priorities in the conditional type maintenance

No.	Classification in terms of increase in the cost of the means of control put into operation	Classification of disturbances of critical components depending on the diminution of the disturbance risk degree					
		C1	C2		...		Ck
1.	Use of measure and control means for technological equipments: E1 E2 E3...	*	*			*	*
2.	Controls through equipment exploitation operators: - E 10 - E 11...	*	*			*	*
3.	Recurrent controls with equipments work check: - E 20 - E 21...	*		*			*
4.	Automized measure and control systems for checking the work of the main technological equipments: - E 30 - E 31...		*	*			*
5.	Appealing to specialized societies - E 41 - E 42...		*				*
6.	Monitoring appliances - E 51 - E 52...		*	*		*	*

In table 1 we presented a number of six methods of deployment of technological equipments work pursuit systems classified depending on the complexity of the means used and on the deployment and using costs. For each one of the equipments included within the framework of the pursuit process the critical components arranged in terms of the disturbance risk degree will be established; generally the number of components subdued to supervision increases depending on

the complexity of the method applied. Thus, it can come that in the case of the deployment of a monitoring system (in accordance with position 6. from table 1) all the work parameters are pursued, which means including all the critical components of the respective equipments within the framework of the system.

4. CONCLUSION

The application of a optimal policy in the maintenance management requires a comparative analysis of the conditional maintenance deployment programmes with the corresponding programmes of the corrective maintenance, with the likely comprising of the optimal systematic maintenance actions, for equipments for which the conditional type maintenance can be applied by priority, respectively for the equipments for which the disturbance instalment is increasing in time.

REFERENCES:

- [1]. Bonnet, A. (1986) *Systemes Experts, Vers la maîtrise technique*, Inter Editions, Paris
- [2]. Cucu, I. (1999) *Managementul activității de mentenanță industrială*, Editura Universitas, Petroșani
- [3]. Cucu, I.; Dura, C.; Drigă, I. (2009) *Expert Systems in the management of industrial equipment maintenance*, Annals of the University of Petroșani, 9(1), pp.191-198
- [4]. Fleșer, T. (1998) *Mentenanța utilajelor tehnologice*, O.I.D.I.C.M., București
- [5]. Florea, C. (2006) *Mentenanța*, Editura Universitas, Petroșani
- [6]. Lastargue, Y. (1988) *Vivre l'informatique*, Les Editions d'Organisation, Paris
- [7]. Marc, D., *Organization d'un service de telemaintennace*, Revue: Achats et Entretien, 38

DISTANCE BANKING SERVICES - A SOLUTION FOR THE ROMANIAN MANAGEMENT BANKING SYSTEM

ELENA SILVIA DINCULESCU *

ABSTRACT: *Involved in the competition to attract and turn the clientele faithful, banks develop a series of activities that could increase their popularity, trust, and acknowledgement. Thus, creating a distance banking service is an opportunity that must be put into value. The present tendency at international level is the significant decrease of the importance of distribution channels through the classic banking network. In this context, active banks in Romania cannot be dissociated from the existing tendencies, and the spectacular dynamics of distance banking services in the last years has shown that, in a future closer than expected, clients might abandon the services of a bank with bad quality e-banking.*

KEY WORDS: *distance banking; multichannel banking; accessibility; rapidity; competition*

JEL CLASSIFICATION: *G21*

It is absolutely correct to say that “*clients are gained with small interests and new products, not with performance e-banking services!*”, but it is also true that the relation with the bank also means routine operations - transfers, transactions or information in real time. As a consequence, if the product has captured the client, e-banking plays a role of similar difficultness by trying to keep him.

In most developed countries, e-banking services are automatically offered together with other banking products due to their popularity within the clientele. In Romania, distance payment is still practiced only by those companies and persons that have a certain banking culture, internet and computer.

The present international tendency is to significantly reduce the importance of the distribution channels of the classic banking network. When attracting new clients and keeping the existing ones, active banks in Romania cannot dissociate from the existing tendencies. The first steps made in this direction were made by launching the

* *Ph.D. Student., „Constantin Brâncoveanu” University of Pitești, Romania,*
nataliadinculescu@yahoo.com

activity with cards, and more than that, the distance banking services (by internet or wireless technologies, with the help of mobile phones) become a real banking service. That means that Romanians have acknowledged the importance of this phenomenon.

The short existence of distance banking services - e-banking - began in the last century when an economy house in Maryland USA launched the first online services as alternative to the classic methods of administrating banking accounts.

In Romania, the first bank that provides banking services like home-banking is ING, which launched this service in 1995 and in 2001 Demirbank, the present UniCredit Tiriac Bank launched in premiere the mobile-banking services.

At worldwide level, a new concept took shape - "multi-channel banking", as the clients' possibility to access the banking services on multiple and unconventional ways. Almost every Romanian banking company presently offers their clients the possibility to use a distance service such as: Internet-banking, Home-banking, or Mobile-banking. (Socol, 2007)

The technological developments and the exponential growth of the information volume transacted in the last decades have directly influenced the methods and the techniques used in the financial and banking sector. Specialists appreciate that 15-20% of the banks' budget is spent on telecommunications. Every banking company has its information system that represents the business key; it helps circulate the information bearing benefits and it is absolutely compulsory to be protected. All banks are constantly preoccupied with the protection of the information about clients and about themselves.

Presently, the dependency between the banking sector and the IT&C industry is total - „business is incorporated in technology” (Bârboi, 2006). Any product or banking activity depends on the IT&C services projected in this sense, no matter which are the sizes of the banking institution, their specialization and country of origin. A poor quality of information products, the unavailability of the telecommunication systems may directly affect the quality of the banking services, generating the clients' dissatisfaction - who become more and more sophisticated - which may conclude in losing the market share or the marginalization of the institution.

A large part of the operations previously executed by the banking representatives are now made by the calculation systems, and thus, they deal with the problem of the optimum usage of these systems in order to obtain maximum performance with the lowest possible cost.

At the banking level there is ferocious competence to get the best and most attractive product, the largest number of clients, the largest number of branches and banking ATMs, the best trained personnel, and competence sharpens senses and directs attention to innovative and profitable solutions. At the same time with the intensification of this competence, banks will largely invest in the efficiency and solution development that can differentiate them on the market.

Distance banking deeply transformed the way of communicating, distribution, marketing and sales regarding the banking operations. Thus, communication is made indirectly or with the help of some people that are not visible or perceivable for the consumer. In what distribution is regarded, distance banking adds a supplementary channel to the existing one, permits a fine segmentation of products, and banking

specialists consider that next to the classic products, clients could buy a new one (Dănilă, 2004) .

After analyzing the capacity of increasing the distance banking services made by the banking marketers, the following things were observed:

- a consumer out of three never goes to the bank unit and therefore he cannot be considered a target consumer;
- the interviewed consumers considered that distance banks represent the most adequate interface for current operations;
- although clients are faithful to the traditional agency, one cannot exclude in the future to try new methods that could allow them a much more comfortable approach of services;
- the rapid growth of internet users leads to the promotion of distance banking;
- the dynamization of the account number is exponential, so we assist to the democratization of banks by making them closer to the population.

Distance banking services present a major impact upon banking companies and clients having advantages on both sides. Each bank client must go to a bank unit at certain periods of time, hardly facing the urban traffic and the front-office queues. But with distance banking services, clients can operate their transactions from their office, from home or anywhere else with the help of an Internet connection. Studies indicate that, between 9-11 am, 22-23% of the total volume of online visits is made by those who access the banking sites. The second peak is between 5-7 pm when 13-14% of the total connections at the end of the day and after the closing of banking agencies. The permanent access to their accounts, mainly at the time of the front-office opening, which are still constraining especially for those who work, comfort, discretion and time gaining constitute real advantages for the clients. In what on-line products and services are offered, banks promise to provide *accessibility, availability, commodity and rapidity*.

In what the commissions specific to these types of services is regarded, they more reduced than the classic ones because of the banks' desire to promote them. At European level, according to the Forrester reports, the cost of an online transaction is of approximately 14 eurocents while a transaction made through the bank unit costs approximately 2 euro.

Migration at worldwide level from transactions made on paper to the electronic ones gets deep implications on the economic development. Thus, electronic transactions imply lower costs than their equivalents in cash, stimulating the consumer to reduce his expenses and increase the volume of bank deposits in the economy,. This type of services cannot constitute real "access keys" to the banking system for the people who do not currently work with banks.

In spite of all this, clients do not easily give up inter-human relationships when asking for a banking service, choosing to go into dialogue with the bank representative at the front-office.

In order to promote on-line services and products, banks consider two segments of target-clients, on one side the students, and on the other side, the active population with secondary and high studies. Most banks have created sites which help

them inform the clientele about the products and offer on-line financial-banking services.

The users of these services may be divided in two categories:

- „*the practitioners*”, are those active people who do not have too much time for banking operations and they use a distance banking service to simplify their life;
- „*the modernists*”, characterized by a high level of mobility, the fans of high-tech, that are not interested in the human side of the client-bank counselor relationship.

A study made by Capgemini, ING and European Financial & Marketing Association (EFMA) for 16 European countries, plus China, Canada and the USA, where 41 retail banks were interrogated, (16 banks from the Euro Zone, 15 European banks outside this zone, 5 credit institutions in China and other 5 in North America), show that the price for online banking services fell sharply, in the Euro Zone with 28%. According to this study, most countries in which banks offer online banking services, the clients get this type of services for free when opening an account.

As compared to other banking products and services, the cost of the services of direct debit, call center and online banking indicated the most dramatic decrease: 12%, 20% respectively 23%.

In what the structure of the distribution services is regarded, it will suffer large modifications. Thus, the predictions for 2015 say that the banking products' distribution at branch level will decrease by 15% as compared to the level registered in 2007.

The research shows that banks have a common vision regarding the banking development, waiting for the services to lose their human touch and for the branches to concentrate themselves on consultancy. But from vision to reality the distance is long, even in the case of developed countries. The problems that appear regard the branches' profitability, as consultancy centers, their efficiency with which distance channels will succeed to inform clients and lead to the increase of sales.

The process automation will not lead to a decrease in the number of branches. The financial consultancy offered to the client represents a strong point of the bank representative, which e-banking could not replace.

The most important reason for which the population avoid using distance services are the suspicious concerning the transactions security. From technological point of view, the protecting methods used by the banks have been very much developed, thus the main problem that still exists is to convince the population about this thing. One of the strategies used by the Western banks to gain the customers trust was to offer guarantees for the transactions security.

The limited utilization of banking internet services is also caused by the fact that the large Romanian banks have been too late involved in this segment. Having extended territorial networks, these could have promoted more easily e-banking services and this could have led to the attraction of a greater number of on-line customers.

In Romania, at the end of 2007, according to the information of The Ministry of Communication and Information Technology, 460923 of users, individuals and corporate bodies, used distance payment services. At the end of 2009, the figure has risen to 1968433 users. If we refer to the value of transactions in lei and currency

expressed in Euro equivalent, at the end of 2007, the figure was of 34.978.245.760,12 euro, in December 2009, it was rising to 82.782.400.000 (table 1).

Table 1. The Situation of Distance Banking

Indicators	2007	2008	2009
Users Number	460.923	1.187.860	1.968.433
Total Number of transactions	5.417.446	18.655.490	23.914.386
Total Value of transactions - euro	34.978.245.760,12	78.954.100.000	82.782.400.000

Source: The National Bank of Romania

In 2009, huge increased have been made on all plans concerning the distance banking transactions. Thus, the number of customers who accessed e-banking services (individuals and corporate bodies) has increased from 1.187.860 users recorded at the end of the 2008 to 1.968.433 users in 2009 (table 2).

Table 2. The Number of e-banking users

Banks	The number of users 2008	The number of users 2009	The growth rate 2008/2009 (%)
BCR	438000	741650	69
Raiffeisen Bank	168458	305194	81
BRD-GSG	180900	272500	51
ING Bank	163100	263650	62
Banca Transilvania	70000	110000	57
UniCredit Tiriac Bank	50459	81346	61
Volksbank Romania	22371	38630	73
Alpha Bank Romania	29000	37000	28
BancPost	22593	33158	47
GarantiBank	5209	28228	442
OTP Bank	14000	18000	29
Intensa Sanpaolo Romania	3814	11112	191
Piraeus Bank Romania	6800	9100	34
Credit Europe Bank	6691	8481	27
Leumi Bank	4076	4890	20
Bank of Cyprus	1109	2067	86
RIB	249	1787	618
Libra Bank	872	967	11
ATE Bank Romania	159	673	323
Total	1187860	1968433	66

Source: www.e-finance.ro

Increases have been also recorded concerning the total number of transactions made by users who chose the distance banking services. Thus, from 18.655.490 transactions recorded in the last trimester 2008 up to 23.914.386 transactions (table 3).

Table 3. The Number of e-banking transactions

Banks	The number of transactions 2008	The number of transactions 2009	The growth rate 2008/2009 (%)
ING Bank	4900000	7200000	47
UniCreditTiriac Bank	6058895	4423453	-27
Raiffeisen Bank	1317365	2258372	71
BRD-GSG	1343000	2125000	58
Banca Transilvania	1500000	2000000	33
BCR	145000	1724000	1082
AlphaBank	1200000	1400000	17
BancPost	902018	1016998	13
PiraeusBank	325000	475000	46
CreditEurope Bank	411868	464809	13
Volksbank Romania	75541	200231	165
Libra Bank	98299	141180	48
GarantiBank	23068	143094	520
Leumi Bank	253777	138559	-45
Intensa Sanpaolo	92741	125527	35
Bank of Cyprus	4564	33834	641
RIB	2173	27041	1144
ATEBank Romania	2181	23248	966
Total	18655490	23914386	28

Source: www.e-finance.ro

In the future, the three services: Home, Internet and Mobile banking will not be identically developed. The development of Mobile banking service has a great potential if we think about the number of mobile phone users, but we should take into consideration that the security of these services doesn't depend on the bank but on phone operator, that is why many banks are skeptical to invest in this type of services. Internet banking will have a greater potential because it offers the possibility to develop new options and facilities and it is accessible from any location connected to internet. If an application of mobile or home banking represents a good solution for the retail customers, internet banking aims especially the companies.

In spite of the lack of trust in the safety offered by the electronic environment, more and more Romanians access the Internet banking services and products. If a year ago a study made by Deutsche Bank placed Romania, next to Bulgaria, Greece and Macedonia, among the European countries with the lowest degree in e-banking services, today, the bank representatives in our country say that these services pass through the most important period of modernization.

Another vector of increasing the clients' number could be represented by the penetration of many foreign companies on the Romanian market, companies which regularly use e-banking services. At the same time, the boost of Internet users as well as the possibility to pay all taxes to the state budget through the Internet will amplify the tendency of the Internet-banking penetration on the Romanian market.

Although the figures indicate spectacular increases, the bank representatives do not consider that that statistics show the real potential of e-banking. These services are

not used at their real capacity because of the lack of the clients' experience in using the PC, because of their fear to work with the bank and their mentality of working with cash. In spite of the fact that e-banking services do not represent a profit source, new investments are going to be made in order to improve them, which means that banking management appreciate their capacity if not in attracting clientele, but in keeping them.

Considering the declarations of the representatives of commercial banks, it seems that in the following years, a development of the structure of e-banking will be recorded. For the moment, the principal segment is represented by the commercial companies, this situation can be explained considering that in case of a company the number and the value of transactions are much more than in case individual users. In present, corporations prefer as a rule home banking services, as it can be adjusted to the specific of the activity. They have also extended cash management functionalities and can be connected to a great number of applications in the company management.

They also permit the assignment of more users having multiple tasks. For example, a payment order is filled in by an employee, and the payment authorization can be given by another person, being or not being in the same location. The disadvantage is that the information is not brought up to date in real time, and the exact balance of the account can be known only at the end of the day. This inconvenient can be avoided in case of internet banking applications, which are focused on the current account, from where the disponibilities are to be directed by the customer for payments, deposits or other destinations. The internet banking market is directly influenced by the degree of internet penetration, by the banking culture and also by high commissions charged for making payments.

By using the Electronic Payment System (SPE) managed by Transfond has greatly influenced the specialized market in fact any operation made by a distance banking service is carried on in real time. Another strong aspect of the Romanian banking system is the application of the so-called - direct debit. It is about a service by which the payment between customer and supplier is made between banks. This was available in the past too, but the two had to have account at a bank undertakes to make payments to certain supplier periodically.

The difficult economic period we are going through has had a boost of eBanking services, leading to a more careful both banks to promote their clients how to understand the benefits of banking transactions in front of the computer. The need to reduce costs has led banks to transfer part of operations to the greatest possible alternative channels, which provide lower costs.

On the other hand, customers are more aware of the price paid for banking services, the time spent on speed and security operations. The conclusion is simple: the benefits from such services worldwide!

REFERENCES:

- [1]. Azarchs, T. (2000) *The Internets Impact on Financial Services*, Standard&Poors Credit Week, 26 January, p.5
- [2]. Basno, C.; Dardac, N. (2002) *Management bancar*, Editura Economică, București
- [3]. Bărboi, D.C. (2006) *Băncile înoată în sensul curentului tehnologic*, e-Finance, 75, București

-
- [4]. **Bârligea, B.** (2006) *Crește febra externalizării în bănci*, e-Finance, 75, București
- [5]. **Căpraru, B.** (2009) *Retail banking*, Editura C.H. Beck, București
- [6]. **Cheung, C.; Lee, M.** (2000) *Trust in Internet shopping: a proposed model and measurement instrument*, Proceedings of the 2000 America's Conference on Information Systems (AMCIS), August, pp. 681-689
- [7]. **Dănilă, N.** (2004) *Retail banking*, Ed. Expert, București
- [8]. **Dilley, D.K.** (2008) *Essentials of Banking*, Editura John Wiley & Sons, Canada
- [9]. **Drigă, I.** (2010) *Internetul pentru derularea de operațiuni bancare*, Tribuna Economică, 5, pp.67-69
- [10]. **Drigă, I.; Niță, D.; Dura, C.** (2009) *Aspects Regarding Internet Banking Services in Romania*, Annals of the University of Petroșani, Economics, 9(3), pp.239-248
- [11]. **Furst, K.** (2000) *Internet Banking: Developments and Prospects*, Economic and Policy Analysis Working Paper (9)
- [12]. **Heffernan, S.** (2005) *Modern Banking*, Editura John Wiley & Sons, England
- [13]. **Karjaluoto, H.; Mattila, M.** (2002) *Electronic banking in Finland: consumer beliefs and reactions to new delivery channel*, Journal of Financial Services Marketing, 6(4), pp. 346-361
- [14]. **Socol, A.** (2007) *Conceptul de multichannel banking în sistemul bancar românesc*, Finanțe Bănci Asigurări, Nr.4, București
- [15]. **Waite, K.; Harrison, T.** (2002) *Consumer expectations of online information provided by bank websites*, Journal of Financial Services Marketing, 6(4), pp. 309-322
- [16]. **Weninger, J.** (2000) *The Emerging Role of Banks in E-Commerce*, Current Issues in Economics and Finance, 6(3), Federal Reserve Bank of New York
- [17]. **National Bank of Romania** (2010) *Statistics report*, [Online], Available at: <http://www.bnro.ro/Statistics.aspx>, [Accessed 21May 2010]

UNEMPLOYMENT – THE UNBALANCE OF THE LABOUR MARKET IN JIU VALLEY

OANA DOBRE-BARON, ALINA FLEȘER *

ABSTRACT: *During several decades, Jiu Valley has represented one of the labour markets, which, like a sponge, absorbed labour force from all over the country. As the number of the population increased the number of the population working in the mine industry became the highest in the country. But everything came to a stop in the year 1997, year representing the great layoff in Jiu Valley. The paper will deal with the labour market and unemployment in this mono-industrial area, as a result of the decisions to reorganise the mining industry.*

KEY WORDS: *mining industry; labour market; employed population; active population; unemployment; unemployed population; layoff*

JEL CLASSIFICATION: *E27, L7, J21, J48, J6, J63*

1. INTRODUCTION

A short presentation of Jiu Valley, a mono-industrial area needs to be made in order to be able analyse unemployment in the area, resulting therefore that labour is based strictly on mining, other economic activities being in fact only side activities to coal mining.

Economically speaking, Jiu Valley is **the largest coal basin in the country**, based mostly on underground coal mining and preparation. Important mines, such as Petrila, Vulcan, Aninoasa, or Lupeni exist for over a century, being also the basis of mining labour centres. The number of underground mines had reached 13, before 1990, adding as well another 2 surface quarries. Moreover, the entire mining field of Jiu Valley was coordinated for more than 60 years by the National Coal Company (C.N.H.) Petroșani.

Socially speaking there is a mono-industrial labour centre focused on coal exploitation and capitalization, the reserve of which would allow the exploitation for another century. In 1875, Henri H. Stahl considered Jiu Valley to be a **multi-nuclear**

* Lecturer, Ph.D., University of Petroșani, Romania, [oanabaron@yahoo.com](mailto: oanabaron@yahoo.com)

Lecturer, Ph.D., University of Petroșani, Romania, [alina_flesher@yahoo.com](mailto: alina_flesher@yahoo.com)

urban centre. The centre was formed of the main Head City of the Valley, i.e. Petroşani, together with other cities (Lupeni, Vulcan, Petrila), and after different steps, Uricani, Aninoasa and Lonea received their urban status. All these municipalities had been built over mines, including Petroşani, the administrative centre, where Dilja mine exists since the inter-war period and Livezeni having been created afterwards.

Normally, the more reduced the population is in a city built over 1-2 mines, the more pronounced its **labour centre** character is, emphasized by the proportion of workers within the total number of employees in the city. One of the studies on this theme, made decades ago (Krausz, 1974, pp.79-86) showed that compared to the year 1930 (considered = 100%) the population of the country in 1972 represented 142%, the population of Hunedoara County represented 159%, while the population of Petroşani represented 221%. The proportion of workers within the total number of employees was of 74% in Petroşani, 85% in Lupeni, 87% in Petrila and Vulcan, and 93% in Uricani. These data represent a confirmation both of the characters of labour centres as well as of those of the mining centres.

In what Jiu Valley is concerned, during the last 50 years, the importance of coal mining and preparation for the national economy has implied an increase of production, which in the year 1988 had reached 11.2 m tons (Fodor, 2005, p.295), resulting in a rapid development of the area, but also to a **mono-factorial economy**.

In 1990, once changes in the entire national economy began, the restructuring of the entire mining field began as well. This is one of the most important components of the transitional process in Romania. Besides its favourable effects upon the increase of the degree of reliability of mines and decrease of loses in the entire national economy, the reform process contains a lot of negative consequences on miners and their families, as well as on the communities of people working in other fields (i.e. metallurgic, iron and steel, or other public services), the life of which is structured mainly around the mining activity, and not the least consequences on the local infrastructure. The most important obstacles and difficulties encountered are the following:

- * Increase of unemployment and impossibility to find an alternative work place;
- * Dramatic decrease of the life standard;
- * Local infrastructure and public services deterioration.

Moreover, a series of **strategic concepts** regarding the background mining restructuring were created, and were composed of:

1. Technical and production restructuring;
2. Managerial and organisational restructuring;
3. Personnel restructuring;
4. Decrease or stop of the productive activity.

As well as other components of the transitional process, the restructuring of this important sector represented and still represents a national priority. During the last few years, extracted coal quality decreased to an inferior level, while production costs started to exceed their real value by several times. Poor management and administration of mines, their use of excessive labour force and especially their lack of

efficiency characterise almost this entire sector of the economy determining huge losses on a national economic scale.

Therefore, considering these conditions, mine restructuring especially coal mining became a national need. Staff excess in the mining sector and the coal stock determined the “Ciorbea” Government to resort to the layoff “solution” using 2 Governmental Decisions, i.e. Decision 9/1997, addressed to laid-off people from the Autonomous Administrations and state owned commercial entities, independent on their activity profile and respectively Decision 22/1997 giving a special status to miners laid-off “on request”. According to the regulations of this later decision, laid-off miners were given financial compensations, between 12 and 20 average incomes in the branch.

Although the Decision 22/1007 foresaw in the **labour force laying-off programme** in the mining field only 15% of the personnel would leave this sector of the economy, due to the temptation of financial compensations, the number of those who voluntarily accepted to be laid-off exceeded all estimations, being the case that autonomous Administrations’ personnel to decrease by approximately 40%. This had a series of immediate negative consequences over several mining units, therefore confronting themselves with the lack of specialised personnel and the perspective of being closed in the future.

2. A SURVEY OF THE WORK FORCE IN THE WESTERN REGION OF HUNEDOARA COUNTY AND IN JIU VALLEY

Being the “drive element of the national economy” (Anghelache, 2004, p.349), it is important for the evolution of the work force to be analysed during the transition period to a market economy in Romania. According to statistics, during 1997-2007, the structure of active and employed population, at a national level, evolved as presented in Table 1.

Table 1. Active and employed population, at a national level during 1997-2007 (Thousands of people)

Specification \ Year	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Active population	11756	11577	11566	11585	11447	10079	9915	9957	9851	10041	9994
Employed population - total	9023	8813	8420	8629	8563	8329	8306	8238	8390	8469	8726
Industry	2450	2317	2054	2004	2017	2122	2059	2052	1973	1969	1958
Mining industry	184	169	146	140	140	133	125	117	106	90	85

Source: INS, Romania's Statistics Yearbook, 2006, pp. 113, 124; 2007, pp. 120, 122; 2008, p. 116, 119

With reference to the mining industry, the **descending trend** of the employed population at a national level is obvious, as a result of reorganisation programmes, in the year 2002 decreasing with 51,000 people than 1997. In 2007, **the population employed in the mining industry** is 99,000 less than the year of the first layoffs, the number practically reflecting half of it.

Apart from the mining industry, the number of employed population in other branches of industry decreases as well in the mentioned period of time, the only exception being the year 2002 when an increase of the population is recorded considering the previous year, although the situation is not as bleak as it seems, on a national level, the industry employed population in 2007 represents 79.91% of the population employed in 1997.

We have dealt with the existent situation on a national level in order to be able to proceed and compare the evolution of employed population within the Western region of Hunedoara County. Its structure has evolved considering the demographic evolution and economical reorganisation at a county level, having major implications over the work force.

During 1995-2005, within the county, massive reorganisations and layoffs of the active population were made, especially in the field of mining industry (Table 2), as well as in iron and steel industry, chemical industry, etc., which lead to the **decrease of industry employed population** with 41.34%, and in the mining industry with 68.66%, in only 10 years (Table 3).

Table 2. The number of laid-off people in Hunedoara County and Jiu Valley during 1997-2004

Specification \ Year	1997	1998	1999	2000	2001	2002	2003	2004
Total - County	23.061	6.304	21.514	9.051	2.419	1.658	9.468	3.494
Total - Jiu Valley, out of which:	16.956	2.083	1.743	284	32	432	610	1.886
Petroşani	4.935	1.915	1.462	213	0	342	610	1.865
Lupeni	2.573	44	16	35	32	10	0	0
Vulcan	2.626	100	163	22	0	80	0	0
Uricani	2.353	24	0	0	0	0	0	21
Petrita	3.564	0	102	14	0	0	0	0
Aninoasa	905	0	0	0	0	0	0	0

Source: Hunedoara County Workforce Employment Agency, Layoff level in Hunedoara County and Jiu Valley during, 1997-2004

It is clearly observed that in 1997, most of laid-off people in Hunedoara County were from Jiu Valley (72.53%), most of them being employees of the National Company of Coal Petroşani (CNH Petroşani).

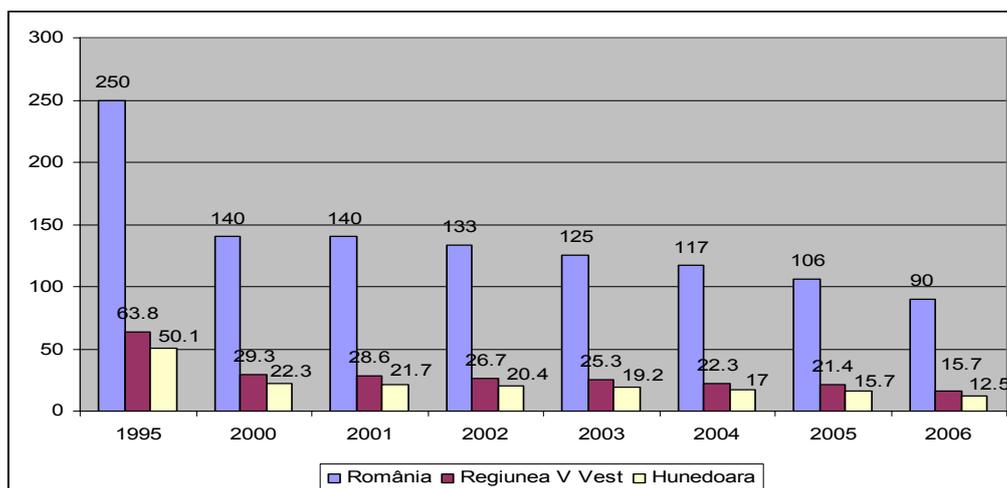
The percentage of employed population in the mining industry in Hunedoara County within the Region, 78.52% in 1995 and 79.6% in 2006, emphasises the dependency of the county and especially of Jiu Valley on this type of activity.

Moreover, both from the previously presented data as well from the evolution of the employed population in the mining industry in Hunedoara County in Figure 1 we may conclude that if in 1995 the employed population in the mining industry in Hunedoara County represented 20.4% of the employed population on a national scale, in 2006 it did not decrease that much, being 13.88%. Therefore it is proven once again that even after the reorganisation Jiu Valley remains the **largest coal basin of the country**.

Table 3. Employed population in the Western Region V and in Hunedoara County (Thousands of people)

Specification \ Year	1995	2000	2001	2002	2003	2004	2005	2006	2007
Employed population in the Western Region	940.1	821.1	808.8	815.3	811.0	818.2	834.9	839.4	869.2
Industry, out of which:	284.5	218.9	223.5	239.4	235.1	244.6	246.6	244.6	250.8
Mining Industry	63.8	29.3	28.6	26.7	25.3	22.3	21.4	15.7	15.8
Employed population in Hunedoara County	252.2	199.1	191.3	195.8	187.0	191.6	193.8	192.0	199.5
Industry, out of which:	109.8	66.3	63.6	66.8	59.0	64.5	64.4	62.3	62.0
Mining Industry	50.1	22.3	21.7	20.4	19.2	17.0	15.7	12.5	12.8

Sources: INS, Regional statistics, for the data of the Western Region; INS, DJS Hunedoara, County Statistics, for Hunedoara county data; INS, Romania's statistical yearbook, 2007, p. 196, for 2006 data; INS, Romania's statistical yearbook, 2008, p. 193, for 2007 data

**Figure 1. The evolution of employed population in the mining industry (thousands of people)**

In what Jiu Valley is concerned, the economic reorganisation programmes in the field of mining, materialised by closing activities and reducing personnel, continued as well long after 2002, the last personnel layoff programme of the National Company of Coal Petroşani taking place in April 2004 (1700 people), between March and April 2005 (1200 people), in January 2006 (1200 people), as well as in March – April 2010 (1500 people).

Therefore, in Jiu Valley, all the values regarding the work force decreased drastically during 3 years. The number of employed population decreases by 33% compared to the year 2001, while unemployment increases by 3%, recorded figures which take into consideration the decrease of active population by 28%.

Table 4. Active employed and unemployed population in Jiu Valley, in July 2001 and August 2004 (people)

Town	Active Population		Employed Population		Unemployed	
	07.2001	08.2004	07.2001	08.2004	07.2001	08.2004
Aninoasa	2668	1637	1972	1310	696	327
Lupeni	19335	9963	16375	7761	2960	2202
Petrila	12592	9104	10495	7041	2097	2063
Petroşani	24709	17853	21582	14573	3127	3280
Vulcan	16201	11641	12777	8961	2424	2680
Uricani	-	3641	-	2518	-	1123
Total Jiu Valley	75505	53839	63201	42164	11304	11675

Sources: Hunedoara County Workforce Employment Agency, Workforce status, July 2001; DJS Hunedoara, Workforce statistics, for August 2004

The effects on the labour market imposed by the reduction of mining may be emphasised following the evolution of the average number of employees on a national level (Table 5).

Table 5. Average number of employees on a national level (thousands of people)

Year	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Employees in												
Economy, out of which	5939	5597	5369	4761	4623	4619	4568	4591	4469	4559	4667	4885
Industry, out of which	2586	2443	2272	1991	1873	1901	1891	1848	1741	1672	1632	1615
Mining industry	251	225	181	154	140	141	136	128	118	114	95	84

Source: INS, Romania's statistical yearbook, 2006, p. 124; 2007, p. 132; 2008, p. 130

In what Hunedoara County is concerned, the statistic data draw the image of a **spectacular reduction**, of 75.40% of the number of employed people in the mining industry between 1995-2007 (Table 6), strengthening the fact that the most massive workforce dislocation programmes in the mining industry happened in Jiu Valley. Moreover, as in the case of employed population, an increase of the number of employees in the other branches of industry is observed (process industry, energy, thermal, water, gas) while in the mining industry the number decreases (Stegar, 2007, p.81).

In what the National Company of Coal is concerned, the data provided by the Ministry of Economy and Commerce regarding the employees (Table 7) indicate a decrease of 33,346 people during 1997-2006. Therefore, the number of employees decreased with 73.87% during 10 years, while, as mentioned before, Jiu Valley is a mono-industrial area, the employment alternatives for those who have left the mining industry and who are not at the retirement age being small.

The most spectacular situation of 1998, when the number of employees was 48.51% smaller than the previous year, this number being initially foreseen to be reached only in 2005, which lead the Prime Minister of that time to declare that a "real record" has been reached, while for the same decrease percentage of the number of employees, the Eastern countries needed 10-15 years! (Krausz & Stegar, 1999, p.46).

Table 6. Average number of employees in Hunedoara County (thousands of people)

Year	1995	2000	2001	2002	2003	2004	2005	2006	2007	Difference 2006-1995	
											abs.
Economy, out of which	193676	126518	122172	125099	122648	118944	118648	122821	128671	-65005	-33.56
Industry, out of which	109229	63248	60991	62098	58408	56425	55803	54785	53235	-55994	-51.26
Mining industry	51337	22190	21990	20902	19826	17704	16389	13053	12626	-38711	-75.40

Sources: *DJS Hunedoara, County Statistics, for 1995-2005*; *INS, Romania's statistical yearbook, 2007, p. 202, for 2006*; *INS, Romania's statistical yearbook, 2008, p. 211, for 2007*

Table 7. National Coal Company Petrosani Employee number evolution (data for the beginning of each year)

Year	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
No. of employees	45141	23240	20735	18348	18261	17706	17035	14219	12995	11795

Source: *Ministry of Economy and Commerce, Romanian mining industry, May 2006*

Even if, presently, the layoff programme is over, The strategy for the mining industry foresees for 2007-2012 (Table 8), a constant decrease of the number of employees in the field of coal, but this is not as significant as in the previous period and it is envisaged mainly for people following to be retired.

Table 8. Coal sector employee number evolution during 2007-2012 (People)

No. of employees	Year					
	2007	2008	2009	2010	2011	2012
-existent in the beginning of the year	11770	10770	10270	9770	9270	8500
-reduced during the year	1000	500	500	500	770	0
-left in the end of the year	10770	10270	9770	9270	8500	8500

Source: *Ministry of Economy and Finance, Strategy for the mining industry for the period 2007-2020, p.60*

3. UNEMPLOYMENT – EFFECTS OF THE LAYOFF PROGRAMME IN JIU VALLEY

The immediate and direct consequence of the reorganisation and restriction of the mining activity in Jiu Valley is the unemployment rate, which has been for a long time on the first place in all the regions, representing the percentage of recorded unemployed population and active civilian population (composed of unemployed population and employed population, defined according to the work balance methodology). The term of unregistered unemployed population and its consideration, give it authentic values only for a short period of time from the moment of its establishment, the real number of unemployed (unregistered) being larger. In other words, the determined value of the rate may be real only if all of those who are no

longer registered in any agency had found a job, and had been employed, which would have been impossible during the mentioned period of time.

The comparative evolution of the number of unemployed population recorded for the Western Region and Hunedoara County is presented for the period comprised between 1991-2007 (Table 9) and we may draw the conclusion that the highest number of unemployed population has been recorded during the 17 years in the year 1999 (112443 people for the Western Population and 50981 people for Hunedoara County), explainable, especially for the case of Hunedoara County, where, between 1997 and 1999, there have been major layoffs.

Figure 2 emphasises the large proportion of unemployed population in Hunedoara County within the entire Western Region, which, as mentioned before is composed of four counties. The highest value was recorded in 1996, when the proportion of unemployed population in Hunedoara County compared to the entire region reached 54.76%, but also in the following period the rate reached high values comprised between 40% and 50%, except for 2002 when the unemployed population in Hunedoara County represented just 37.1% from the total number recorded in the Region. This is an alarming situation as the total number of the population of Hunedoara County represented, with slight fluctuations during 1996-2004, approximately 26% of the Western Region

The massive layoffs in Jiu Valley represented for those whom had lost their job, as mentioned before, the right to financial compensation, and the status of “legal” unemployed, entitling them to receive unemployment benefits for a period of 270 days.

Table 9. The number of unemployed population recorded in the Western Region and Hunedoara County for 1991-2007 (people)

Year	Western Region	Hunedoara County	County proportion in the Region (%)
1991	26419	12636	47.82
1992	71038	20365	28.66
1993	90768	23094	25.44
1994	96887	29949	30.91
1995	75987	34423	45.30
1996	56994	31212	54.76
1997	80142	38587	48.14
1998	99226	46894	47.25
1999	112443	50981	45.33
2000	95674	39163	40.93
2001	84751	34516	40.72
2002	57307	21265	37.10
2003	60691	26616	43.85
2004	50695	23253	45.86
2005	45270	20150	44.51
2006	35486	13696	38.59
2007	29470	10087	34.22

Source: INS, On-line Tempo data sources

According to the data collected from the National Company of Coal Petrosani, the number of laid-off people in 1997 was 18,185 people except for those who had retired, those who had left the area, or those who eventually started their own business,

increasing the number of unemployment benefits beneficiaries in the entire county to 20869 people, i.e. 3.8 times more than the previous year (Table 10). Following this boom, the number of beneficiaries began to drop, even if not by too much, considering that during 1998-1999 new layoffs took place, however more reduced than in the previous years. Therefore, considering 1997 as a benchmark, the number of beneficiaries drops with 6721 people in 1998, with 8543 people 1999 and with 13738 people in 2000. This decrease means the end of the payment period of those who had benefited from unemployment benefits and it would have been a positive situation if, after this period had expired, these people had found a job. The sudden leap of the number of those receiving support alimony after the expiration of unemployment benefits (as well as the fact that during 1997-1999 the total number of unemployed population in the county increases) show it is not the case here.

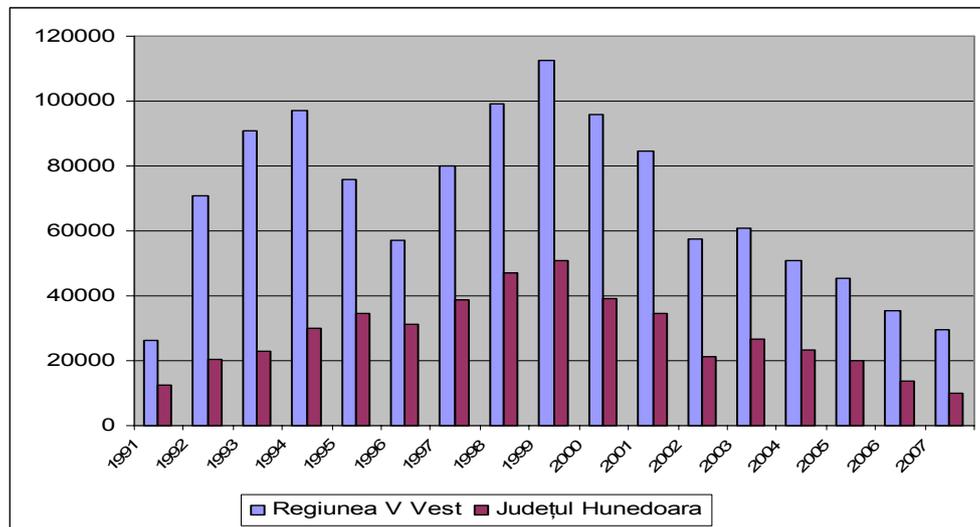


Figure 2. Unemployed population number evolution for 1991-2007 (people)

If, by 1997 the number of those receiving support alimony was only 3222, by in 1998 4.8 time more people are recorded. It has been a spectacular leap which kept on going through the following two years showing once again that the alternatives for a job in Jiu Valley and Hunedoara county for those who had left the mining industry are insufficient, almost null, in proportion to the needs.

It has been dealt with, until now the number of paid unemployed population, but as it may be seen their total number is greater, for most of them the expiration of the social protection payment period does not necessarily mean the reemployment. This is emphasized by the number of population no longer receiving any financial benefit, number reaching its peak, after 1997, in 1999, with total of 18578 people.

The decrease of the number of unemployed population recorded by the statistical data is a positive fact, however we still need to be reminded that once the financial benefits end, a large number of population no longer come back to employment agencies, therefore being removed from the records.

Table 10. The number of unemployed population registered in Hunedoara County for 1991-2007 (people)

Year	Total unemployed, out of which	Receiving Unemployment benefits (unemployed with professional experience)	Receiving Unemployment benefits (unemployed with no professional experience)	People receiving support alimony	People receiving compensation payments	People not receiving financial rights
1991	12636	8157	-	-	-	4479
1992	20365	10359	-	4547	-	5459
1993	23094	10038	-	6852	-	6204
1994	29949	9541	-	7478	-	12930
1995	34423	7683	-	6095	-	20645
1996	31212	5394	-	2749	-	23069
1997	38587	20869	2463	3222	-	12033
1998	46894	14148	3345	15601	-	13800
1999	50981	12326	2945	15663	1469	18578
2000	39163	7131	2197	15294	1120	13421
2001	34516	7859	1797	8859	1	16000
2002	21265	4660	1128	3514	-	11963
2003	26616	12717	1493	49	-	12357
2004	23253	8756	1760	-	-	12737
2005	20150	9267	1359	-	-	9524
2006	13696	7494	646	-	-	5556
2007	10087	4093	383	-	-	5611

Source: INS, On-line Tempo data sources

In what the unemployment rate is concerned, as it may be observed from Table 11 and Figure 3, it had the same evolution during 1991-2007, both for the Western Region as well as for Hunedoara County. The only difference is that the recorded values in the county are superior to those recorded in the Region.

Table 11. Unemployment rate evolution in the Western Region and Hunedoara County for 1991-2007 (%)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Western Region	2.5	6.8	8.8	9.2	7.5	5.9	8.3	10.6	12.6	10.4	9.5	6.6	7	5.8	5.1	4.1	3.4
Arad	1.4	6	9.1	10.1	5.1	2.7	4.9	8.5	9.4	8.4	6.1	5	4.7	3.6	3.6	3.3	2.3
Caraş-Severin	3.8	11.4	12.8	10.4	9.9	7.8	10.9	10.2	11.4	9.7	11.6	9.8	9.8	9	7.9	6.4	7.1
Hunedoara	4.5	7.2	8.3	10.3	12	10.8	15	18.7	21.3	16.4	15.3	9.8	12.5	10.8	9.4	6.7	4.9
Timiş	1.2	4.6	7.1	7.2	4	2.5	4	5.9	8.4	7.6	6.5	3.9	3.5	2.6	2.3	2	1.7

Source: INS, On-line Tempo data sources

By the end of 1999, the unemployment rate in the county reached 21.3%, mentioned to be the highest in the country, and maintained its position in 2000 (18.1%) and 2001 (15.5%) as well. By the end of 2002, the official statistics (INS, 2003, pp.700-703) puts Hunedoara County on the 15th place with a 9.8% unemployment rate, in a hierarchy where the 1st place is occupied by Vaslui County (15.9%); by July 2004, Hunedoara County is one of the first three counties with an unemployment rate of over 10%, next to Vaslui and Braşov.

The mono-industrial characteristic of the area, with a decreasing economic activity, and crises on the labour market and with a weakly developed private sector, of Hunedoara County is obvious. Opposite to it we may find Timiș County, for example, where the unemployment rate has been recorded to be inferior, with values between 1.2% and maximum 8.4%. During the mentioned period, in Hunedoara county, in only four of the years, i.e. 1991-1992 and 2006-2007, unemployment rates of 8.4 have been recorded.

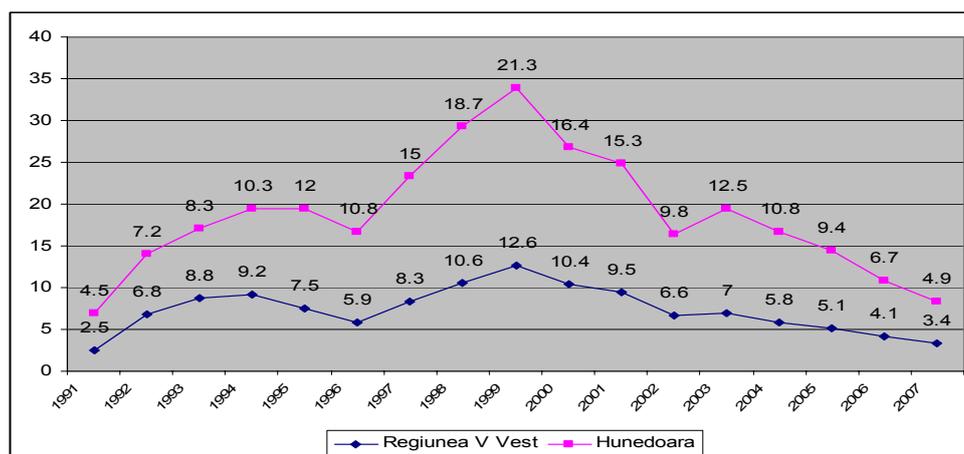


Figure 3. Unemployment rate evolution in the Western Region and Hunedoara County for 1991-2007 (%)

Table 12. The number of unemployed population recorded in Jiu Valley and Hunedoara County for 1996-2007 (people)

Year	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Hunedoara County	31212	38587	46894	50981	39163	34516	21265	26616	23253	20150	13696	10087
Jiu Valley	9903	15293	15004	17241	14658	11304	12143	7668	7288	6139	4911	4031
Proportion of Jiu Valley in the County (%)	31.72	39.63	31.99	33.81	37.42	32.75	57.09	28.80	31.34	30.46	35.85	39.96

Sources: Hunedoara County Workforce Employment Agency, Situations regarding the number of unemployed population in Jiu Valley; INS, On-line Tempo data sources, for Hunedoara County values

Considering Jiu Valley, by January 2000, period characterised by powerful social tensions caused by the expiration of the payment period (unemployment benefits and support alimony) of the first laid-off people, the unemployment rate reached 19.5%; by July 2001 it reached 15.13%; and in October of the same year it reached 17.9%. This last value was taken out of a study (Hunedoara County Prefecture, Jiu Valley Development Strategy "Noroc Bun" 2001-2010, annex 3) which mentioned the following values for Jiu Valley (during the mentioned period): total active population - 90,033 people; total number of employees - 30,816 people; total recorded unemployed population - 16,192 people.

We find ourselves in the case in which, out of 160710 inhabitants of Jiu Valley (Table 13), 56% of them is the active population, out of which only 34.22% is employed, therefore the unemployment rate would be 17.9% according the determination methodology.

Table 13. Population in Jiu Valley (People for the 1st of July of each year)

Year Municipality	1989	1996	1997	1998	2000	2002	2004	2005	2006	2007
Aninoasa	4783	6311	6438	6068	6110	5129	5106	4948	4901	4840
Lupeni	32402	32844	32978	31365	31053	31502	30642	30511	30116	29656
Petrila	28536	30446	30695	28531	28371	26379	25840	25680	25506	25361
Petroşani	53324	53201	53302	51316	50452	46714	45195	45018	44658	43948
Uricani	12059	12992	13422	12056	12006	10460	10227	10104	9937	9750
Vulcan	35931	35861	35988	33324	32718	30555	29740	29648	29546	29108
Total	167035	171655	172823	162660	160710	150739	146750	145909	144664	142663

Sources: INS, Hunedoara County Statistics Directorate (DJS Hunedoara), Quarterly statistical bulletins, no. 4/1996; 4/1997; 4/1999; 3/2000; 3/2002; INS, Romania's Statistical Yearbook, 1990, p. 47; 2006, p. 49; 2007, p. 49; 2008, p. 48

The reported number of unemployed population recorded had its own fluctuations, and if it had decreased it would have been a positive situation, if the population left out of the records had been employed. The great differences (Table 12 and Figure 4) have been recorded between 1996-2000 (3354 people) and between 2002-2003 (4380 people), considering that in Jiu Valley there haven't been so much jobs for a determined period of time, reiterating the belief that after the expiration of the payment formalities or seasonal employment, a large number does not return to the employment agencies, excluding them from the records.

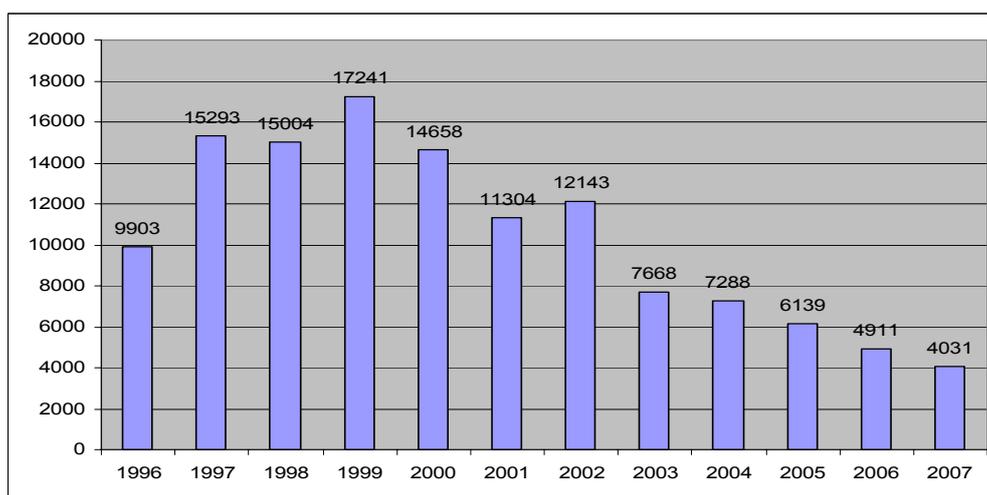


Figure 4. The evolution of the number of unemployed population registered in Jiu Valley for 1996-2007 (people)

4. CONCLUSIONS

One of the national priorities regarding the transition to a market economy in Romania was the reorganisation of the mining sector. Both in the speciality literature as well as in economic practice, the reorganisation is a concept which makes reference to an entire series of measures, methods and strategies, the scope of which is efficiently organise the national, regional or individual economy.

The authorities understood and applied the reorganisation of the mining sector in Jiu Valley considering only the great personnel layoffs. This, inevitably lead to a major unbalance on the labour market in the area and the apparition, enhancement and especially inveterate unemployment as well as long term unemployment.

The mono-industrial characteristic of Jiu Valley is still the main factor on which unemployment is based on. The lack of some activities which are not related to the coal extraction process and therefore absorb a part of the available work force, as well as continuing to decrease in activity determines the decrease of labour request from the economical entities. Moreover, the labour offer increases due to due to the laying-off programmes as well as new generations starting to work.

We may conclude that unemployment in Jiu Valley became a problem affecting the area both from an economic point of view as well as from a social point of view, and finding several solutions in order to decrease this kind of phenomenon, even if only on paper, their application is wanted but won't be realised in the near future.

REFERENCES:

- [1]. **Anghelache, C.** (2004) *România 2004: Starea economică în an electoral*, Economic Publishing House, Bucharest
- [2]. **Chiribucă, D.; Comşa, M.; Dâncu, V.S.; Rotariu, T.** (2000) *Efectele sociale ale restructurării economice a zonelor monoindustriale*, Regional Study in Jiu Valley
- [3]. **Dobre-Baron, O.** (2009) *Securitatea socială în contextul integrării României în Uniunea Europeană*, Universitas Publishing House, Petroşani
- [4]. **Fodor, D.** (2005) *Pagini din istoria mineritului*, Infomin Publishing House, Deva
- [5]. **Iuhas, V.** (2004) *Dezvoltarea economică regională: implicații economice și sociale*, Emia Publishing House, Deva
- [6]. **Krausz, S.** (1974) *Populația și mineritul. Actualități și perspective*, in., Ionescu, Al. (coord.), *Populația și mediul înconjurător*, Deva
- [7]. **Krausz, S., Stegar, I.** (1999) *Cât de voluntară a fost disponibilizarea în 1997 a minerilor din Valea Jiului?*, within the *Scientific papers of the University of Petroşani*, Universitas Publishing House, Petroşani
- [8]. **Stegar, I.** (2007) *Valea Jiului – Probleme și politici sociale*, Focus Publishing House, Petroşani
- [9]. **Hunedoara County Workforce Employment Agency (AJOFM)**, *Layoff status in Hunedoara County and Jiu Valley Jiului, 1997-2004*
- [10]. **County Workforce Employment Agency (AJOFM)**, *Layoff status in Jiu Valley*, no. 4056/03.09.2004
- [11]. **National Workforce Employment Agency**, *Statistical Data*
- [12]. **Hunedoara County Directorate of Statistics (DJS)**, *Workforce statistics*, August 2004

- [13]. **National Institute of Statistics (INS)**, *Romania's Statistical Yearbook*, Bucharest, 1990, 2000, 2003, 2005, 2006, 2007, 2008
- [14]. **INS**, *Regional statistics*
- [15]. **INS** (2007) *On-line Tempo data sources*
- [16]. **INS**, DJS Hunedoara, *County statistics*
- [17]. **INS**, DJS Hunedoara, *County statistics*
- [18]. **Ministry of Economy and Commerce** (2006) *Romania's mining industry*, May
- [19]. **Ministry of Economy and Finance**, *The Strategy for the Mining Industry for 2004-2010*
- [20]. **Ministry of Economy and Finance**, *The Strategy for the Mining Industry for 2007-2020*
- [21]. **Hunedoara County Prefecture**, *Jiu Valley Development Strategy "Noroc Bun" 2001-2010*, annex 3
- [22]. <http://www2.anofm.ro>
- [23]. <http://www.insse.ro>
- [24]. <http://www.jiuvalley.com>
- [25]. <http://www.jiuvalley.com>
- [26]. <http://www.mmssf.ro>
- [27]. <http://www.sips.ro/prefectura>

CO-FINANCING ONE OF THE MANY PROBLEMS IN THE PROCESS OF ACCESSING EUROPEAN FUNDS

DANIELA FLORESCU, PETRE BREZEANU *

ABSTRACT: *In the current financial crisis access and absorption of structural funds is the biggest challenge for government, for business, farmers and nongovernmental organization sector. European integration itself depends on the optimization and substantial absorption for Romania during 2007-2013. This research work displays diverse aspects concerning the Romania's ability draw of irredeemable funds in period 2007-2010, focusing on co-financing activity. Today, the problem absorptions are no longer able to develop projects, that knowing a significant improvement. The volume of projects is increasingly greater that, sometimes exceed the funds available. The issue moved to the stage of implementation and funding.*

KEY WORDS: *absorption capacity; co-financing; convergence; irredeemable financing; management authorities*

JEL CLASSIFICATION: *F36, O19*

1. INTRODUCTION

The structural funds are post - adhesion funds paid from the European Union budget, whose main objective is to provide support for the member states so that the economic and social disparities between the European Community regions diminish.

They are used to support investments in (Florescu & Brezeanu, 2009, pp.253-258):

- education;
- health;
- development of IMM (small and medium sized enterprises);
- infrastructure and transport;

* *Assist. Prof., Ph.D. Student, Romanian Banking Institute, Romania,*
dana_florescu70@yahoo.com

Prof., Ph.D., Academy of Economic Studies, Bucharest, Romania, brezeanupetre@yahoo.com

- environment;
- energy sector;
- agriculture;
- tourism;
- research;
- professional training etc.

One of the fundamental objects of the European Union is the strengthen of the economic-cohesion by reducing the regional disparities. This is also the reason why the member states participate to a European regional policy financed from European funds, which confers a concrete and immediate meaning for the communitarian solidarity.

The European Union economic and social cohesion policy for 2007 - 2013 focuses on three main objectives:

- *Convergence*, which is an objective financed with 80% from the budget destined to structural and cohesion funds and which regards the regions from the member states of the EU that have PIB/inhabitants less than 75% from the communitarian average;
- *Competitiveness and employment*, is an objective financed with 15% from the budget destined to structural and cohesion funds that regard regions that are not eligible within the objective of convergence;
- *European territorial cooperation* is the objective financed with only 5% and refers to transnational, trans-border and interregional cooperation.

Romania, having registered before 2007 a GDP of approximate 35% of the European average is considered eligible for receiving support within the objective „Convergence” as well as within the objective „European territorial Co-operation”.

Structural Instruments of European Union do not act on their own but they are co-financed, mostly from the public resources of the member state but also from private financial contributions. Within the objective „Convergence” the maximum rate of the communitarian contribution is 85% for one operational programme, not only for Structural Funds (ERDF, ESF), but also for Cohesion Funds.

The structural assistance allocated to the Member States from the EU27 for 2007-2013 is of 308 billion euro, which represents 35% of the EU budget of an 862 billion euro value. The amounts allocated to the new Member States for the 2007-2013 period are significantly larger than in first exercise. For EU 8 plus Romania and Bulgaria the total amount is 175 billion, representing more than half the entire budget allocated to cohesion (Florescu & Brezeanu, 2009, pp. 297-304).

When in comes to such amounts, everyone in questioning the manner of improving the capacity to manage the structural funds. All the same, while European funds absorption is a priority of governors, the entrepreneurs claims often mostly the series of problems who make accessing EU funding a cumbersome process, marked by excessive bureaucracy, the major difficulties in obtaining financing.

2. DIFFICULTIES ENCOUNTERED IN ABSORPTION PROCESS OF THE EUROPEAN FUNDS

In the process of submitting and implementing a project of the European funds applicants must overcome several difficulties, from the general to specific.

General difficulties - those faced by Romanian developer to implement any project, whether to grant or not:

- *inadequate management*: insufficient resources to complete project, inconsistency in time, blur the requirement, overload tasks generally leads to greater stress and a rapid depletion, which means long-term average and lower yield;
- *absence of the know-how*: an overall lack of technical information which is secret (is not generally known or readily available), substantial (includes information to be useful) and identified (information is described such that it is possible to verify if they meet the criteria of secrecy and substantiality);
- *legislative instability*: changes/additions in common EU legislation, changes/additions in Romanian legislation, non harmonize national legal provisions with Community legislation, regulations in force which require different responsibilities for the same result, procedures/rules for applying complex legal are impractical or creates confusion, lack of guidelines/manuals, agreed national/community.

Specific difficulties - encountered in the process of accessing of irredeemable funds:

- *the launching of the programs*, be they either POS CCE, POS DRU, PNDR, POR etc., was achieved only in the second half of the year 2007, which led to the first European money entering the beneficiaries' accounts only at the end of 2008, and, for certain financing components, even later (D. Florescu, 2010, pp.92-98);
- *the large number of documents requested* by the Management Authorities (over 47, for instance, in the case of projects applied for financing through European Agricultural Fund for Rural Development). Nevertheless, we mention that this large number of certifications and authorizations are not imposed by the Management Authorities, but they reflect the requirements of the Romanian legislation in force, harmonized with the European legislation;
- going carefully over the Applicants' Handbook, especially for the projects filed for financing within PNDR reveals *conditions which make it difficult to attract funds* (for example, micro-companies from rural areas cannot rent spaces or lands, they can only own as property or be concessionaires on behalf of the local public administration);
- *small number of specialist staff* in problems of absorption of EU funds (Ministry of Economy has 46 employees dealing with 1,000 contracts in implementation, respectively monitoring, control and payment as selection of eligible projects from over 5000 submitted), conjunction with the

impossibility of developing new employment (under agreement with the International Monetary Fund can make a commitment to seven people fled);

- *the large number of taxes* that have to be covered during the process of drawing up the financing file but also during the implementation of the project, for each certification or authorization being a corresponding tax, this representing a discouraging factor for those who wish to invest. Moreover, both the taxes and the costs related to bank loans - interests and account administration costs - are considered to be non-eligible costs, highly increasing the level of the beneficiary's contribution to the project financing;
- *lack of own contribution* necessary to start implementing the project fueled by the reluctance of banks in providing necessary financial support, because there is no guarantee of payment of grant planned in case will be found defects are discovered in the implementation that the settlement project.

3. CO-FINANCING, NEW PROBLEM IN THE PROCESS OF ACCESING THE STRUCTURAL FUNDS

Because all structural funds operate on the principle repayment, this means that after project approval, the beneficiary starts his investment with own funds. It is important that it have the financial capacity to ensure that his own contribution which lies of eligible project costs, ineligible costs and other project related expenses.

In the present context, when the economic crisis banks have tightened lending, more and more companies become reluctant to continue steps for accessing irredeemable funds, even in situations where their projects were approved by authorities management/intermediate organizations.

A recent study showed that in the first decade of 2010, percentage removal was 15%. The percentage is just one tragic, but as the trend is increasing, may become a worrying phenomenon. Premier problem which leading to abandonment of signing contracts is the difficult access to financing.

The beneficiaries need to support banks for:

- part of it's contribution (general rule 15% national co-financing: for beneficiaries of public institutions and non-governmental organizations, up to 13% provided by the state budget and minimum 2% local financing, private beneficiaries with co-financing requirement, according to the rate established for reverence axis);
- start work and paying contractors (by Structural Funds not given advance, but shall be reimbursed expenses incurred so that beneficiaries must have cash to pay suppliers until reimbursement by the management authority/intermediate organizations, where they are considered eligible expenses);
- prioritize coverage ineligible (tax of value added, interest expense, other borrowing fees, collateral costs that arise from a leasing contract, purchase of furniture, equipment, vehicles, infrastructure, land and other property, for the projects who receiving funding from the European Social Fund, expense for Housing costs, for the projects funded by European Social Fund and Cohesion Fund, purchase of second hand equipment, fines, penalties and costs for judgment decision);

- cover exchange differences. The crisis period thereupon the exchange rate fluctuations overlap with the implementation period, as for the majority of beneficiaries resizes its need for investment. For example, an entrepreneur who completed a project worth 200,000 Euros in August 2008 (the official exchange rate was 3.5 lei for one euro) and to be signed by the managing authority in October 2009 (the official exchange rate was 4.2776 lei for one euro) will incurring a loss of 36,357 euro ($0.7776 \text{ lei} \times 200.000 \text{ euro} = 155.520 \text{ lei}$), almost 18.5% of the project. Therefore, hence the question: whether small firms lose 30,000 euro, only because of delays in project evaluation, I wonder how lose the big companies who have submitted projects that have values between 920,000 and 10,000,000 euro?

To be financed by bank applicant must meet the conditions banks set the rules specific credit and the project must can be implemented and to be sustainable throughout the period of maintenance service of investment.

In generally the banks takes a different approach to major projects, who involv making the feasibility studies, cost-benefit analysis, projects have been carried out complex analysis by management authorities/intermediate organizations, as against to small projects where the rating scale does not cover all aspects considered the economic and financial analysis conducted by the bank.

In addition to the criteria of technical and financial evaluation grid project, the banks have in mind such issues as:

- applicant's history in relation to the bank;
- credit repayment capacity;
- guarantee opportunities. For projects funded under the structural instruments, except the National Rural Development Programme, the goods purchased by the project can not be brought to guarantee the credit;
- to carry out economic activities included in the classification indicated by the Guidelines for Applicants;
- have no outstanding obligations under national law in force (contracts of employment and social security, workplace safety, national and local taxes, rules on environmental protection and so on);
- have no public debt outstanding (more than 60 days);
- not in case of bankruptcy or liquidation;
- to be registered at least one or two years of economic activity and operating profit.

According to a communique of the Ministry of Finance at 15 JUNE 2010:

- were 18.177 projects submitted amounting 38.98 billion euro of which were approved in total 4.421 projects in amount of 9.4 billion euro;
- management authorities have recovered, partly, delay evaluations, signing hundreds of contracts this year (in total was 3.146 contracted projects in amount of 6.06 billion euro);
- cadency of sign contracts ahead of the seven times that of payments in amount of 882 million euro;
- the absorption capacity was 10.17% from financial allocation for 2007-2010.

Table 1. Status of submission, approving and funding projects in the period January 2009 - June 2010

Months	Allocations	Total projects submitted (lei)	Total projects approved (lei)	Total projects contracted (lei)	Payments (lei)
January	2.012.300.119	5.713.458.156	46.694.911	0	67.951.258
February	2.012.300.119	2.544.484.005	1.154.723.394	946.504.078	37.973.624
March	2.012.300.119	1.417.681.350	617.224.910	2.335.523.092	151.675.013
April	2.012.300.119	2.287.951.140	554.526.186	675.494.689	36.739.638
May	2.012.300.119	2.696.028.517	1.097.438.909	1.130.448.894	132.686.707
June	2.012.300.119	3.883.790.264	2.446.242.237	542.922.229	95.299.405
July	2.012.300.119	5.222.396.319	4.740.945.184	4.490.731.471	105.988.611
August	2.012.300.119	2.902.432.571	851.929.059	647.954.943	370.800.835
September	2.012.300.119	19.489.146.310	1.060.114.863	1.270.484.351	186.211.810
October	2.012.300.119	17.936.196.301	607.746.837	1.202.919.478	126.092.118
November	2.012.300.119	3.872.669.447	818.871.006	1.182.827.099	345.427.568
December	2.012.300.119	5.743.796.048	12.151.416.825	859.210.182	170.899.756
January	3.057.964.563	2.896.499.947	298.326.612	1.907.954.645	154.974.323
February	3.057.964.563	1.186.824.866	533.531.387	1.195.409.791	177.786.832
March	3.057.964.563	3.062.459.365	1.994.042.532	2.629.374.153	152.594.203
April	3.057.964.563	10.794.415.592	608.420.021	490.004.103	209.239.871
May	3.057.964.563	14.218.057.049	1.774.564.646	1.860.058.423	296.965.526
June	3.057.964.563	7.375.968.219	1.354.728.167	2.986.668.069	245.510.596

Source: Authority for Coordination of Structural Instruments

CONCLUSIONS

If until recently signalled that it had created a gap between the period o when the projects were submitted and the time when they get solved a gap which caused many of the entrepreneurs to give up while others made the impossible to maintain their initial activity and investments plan. Today we can say that the gap moved between stage of signing the contract and payments.

If you keep this rhythm the danger is that Romania can not spend all amounts allocated by the European Union. Therefore it is imperative that management authorities together with all other competent institutions to take measures so as to expedite payments to beneficiaries and to facilitate their access at bank loans necessary co-financing.

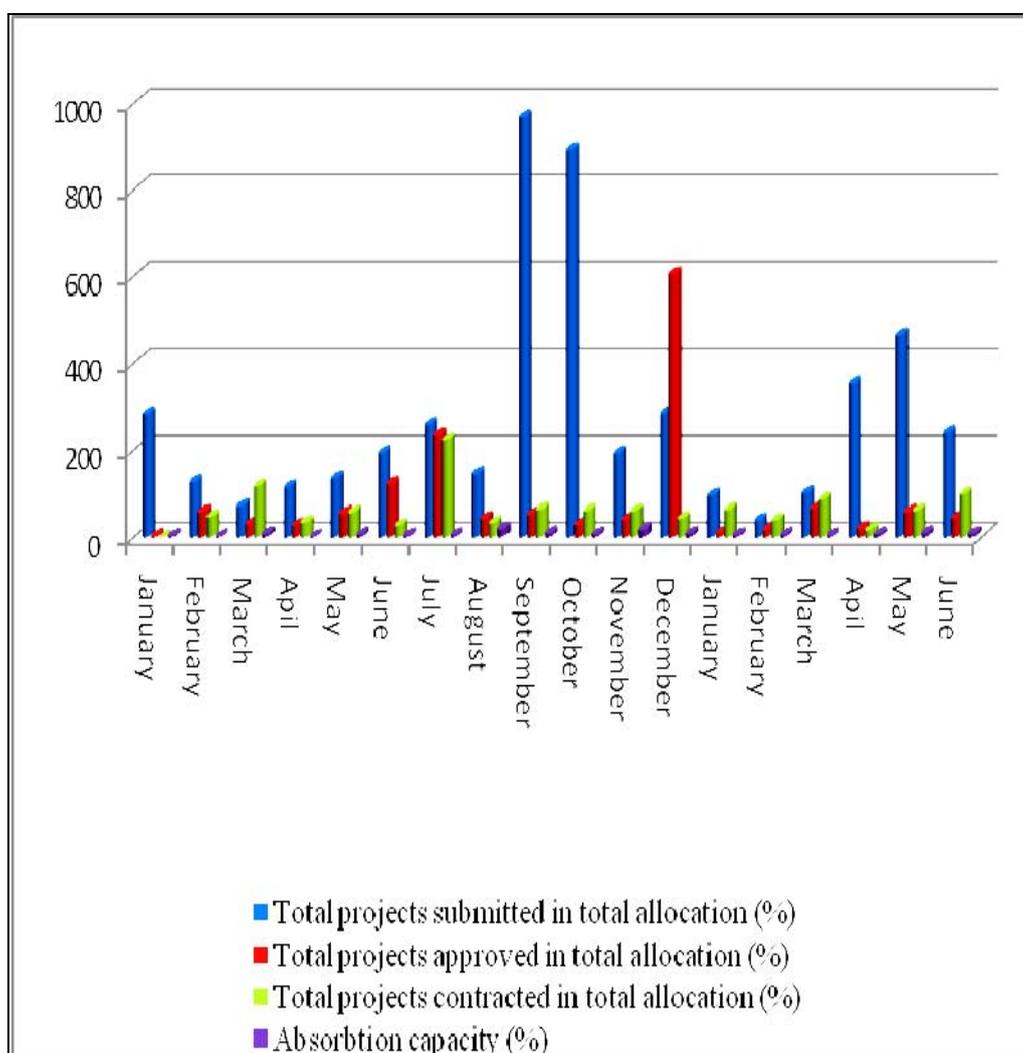


Figure 1. Share of projects submitted, approved, contracted and financed in the period January 2009 - June 2010

REFERENCES:

- [1]. Florescu, D.; Brezeanu, P. (2009) *Romania's ability to Draw European Funds*, Annals of the University of Petroșani, Economics, 9(1), pp.253-258, Available at <http://EconPapers.repec.org/RePEc:pet:annals:v:9:y:2009:i:1:p:253-258>
- [2]. Florescu, D.; Brezeanu, P. (2009) *Implementation of Operational Programmes in Romania the Period 2007-2013*, Annals of the University of Petroșani, Economics, 9(3), pp.297-304, Available at <http://EconPapers.repec.org/RePEc:pet:annals:v:9:i:3:y:2009:p:297-304>

- [3]. **Florescu, D.** (2009) *The European Funds - an anti-crisis measure at the moment*, Romanian Economic Business Review, 4(3), pp.103-110, Available at <http://EconPapers.repec.org/RePEc:rau:journl:v:4:y:2009:i:3:p:103-110>
- [4]. **Florescu, D.** (2010) - *Determining the connection between the total value of projects submitted and total value of approved in the process of accessing European Funds in Romania*, Global Conference on Business and Finance Research, San Jose, Costa Rica, pp.92-98
- [5]. http://europa.eu/pol/reg/index_en.htm
- [6]. http://ec.europa.eu/regional_policy/sources.htm
- [7]. <http://www.eufinantare.info>.
- [8]. <http://www.infoeuropa.ro>

METHODS FOR DETERMINING THE COMMUNITY TO ACCEPT THE EU RULES REGARDING THE QUALITY OF LIFE IN THE URBAN AREAS

**VALENTIN FULGER,
ION HIRGHIDUȘ ***

ABSTRACT: *This paper aims to detail some aspects of European standards relating to the quality of life in the urban space from the Jiu Valley. Thus, we wanted to discover what will be the attitude of Lupeni's citizens, one of the six regional administrative units that make up the Jiu Valley, and especially the ways the authorities have, to determine the acceptance of these new rules.*

KEY WORDS: *rule; attitude; quality of life; occupation*

JEL CLASSIFICATION: *Z10*

1. THE AREA AND THE METHODOLOGY OF THE RESEARCH

The research was conducted in the city of Lupeni during the 19th to 26th of March 2008, being taken into consideration the citizens with legal forms from this city, so the views expressed must belong to people who know very well this area.

Questionnaire-based survey instrument applied by trained operators that have sociology and social studies. The sample is composed on the basis of the related quotas (sex, age, street), and reaches a volume $n = 600$ people.

The completion of the quotas was made, as possible at random, element that improved the results and included them within the allowed limits in all socio-human research.

* Lecturer, Ph.D., University of Petroșani, Romania, vifulger@yahoo.com
Lecturer, Ph.D., University of Petroșani, Romania, hirghidus@yahoo.com

2. THE ATTITUDE OF THE CITIZENS REGARDING THE ANIMAL HUSBANDRY FOR SACRIFICE AND THE COMPANION ANIMALS IN THE URBAN SPACE

We start our analysis and interpretation on how to determine the community of Lupeni to accept the EU directives regarding the quality of life in the urban space, stating that we didn't consider all the dimensions that may result from the operational concept of "quality of life in the urban areas". This concept is much broader and involves dimensions that relate to the cultural quality of life, educational opportunities and achievements of people, to its state of health, leisure opportunities etc.

What we were particularly interested in the present study, was limited to the following aspects:

1. The interdiction by the EU directives, through the appearance of a law on veterinary-sanitary standards in the urban space, regarding the raising of only pets and not those animals which will be sacrificed. This law will profoundly affect the way of life of the six regional administrative units of the Jiu Valley, because in this area there are many animal breeders. The impact of the law on the collective mental will be a highly presented one by the mass media through the situations it will create;

2. The highly increasing of the green spaces, within two years (another EU directive for the Jiu Valley). In this way, actions must be initiated in order to correlate the reality with the environment protection law. There will be big problems on the determination of people, especially those who are land owners to sell certain spaces in order to be processed in parks, gardens, playgrounds, forest selvages etc.

3. The functioning interdiction of the toilets and bathrooms which are not connected to the city sewage systems, including individual household connections to drinkable water. Any determination of the citizens to build individual septic tanks and decanters in order to protect the environment.

We begin the analysis and the interpretation of the collected data from the field showing the point of view of the citizens across the city of Lupeni, how is currently received the occupation of some of their fellow citizens (animal husbandry) in the zoo technical domain.

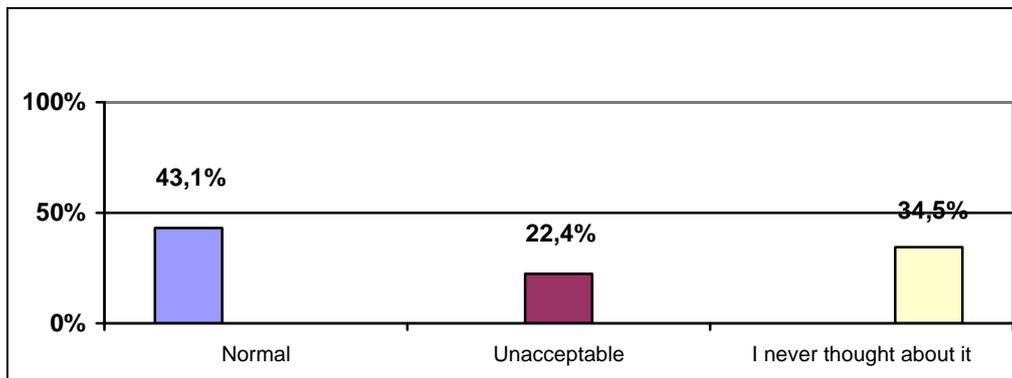


Figure 1. Livestock slaughtered in the city is a concern ...

Although it may appear somewhat anachronistic, the animal husbandry is seen by much of the population of Lupeni (43.1%) as a normal job, not different from other occupations that are found in the area. It is true that there is a very important segment of the same population (22.4%) who acted categorically against the animal husbandry for sacrifice in the urban area, or nearby, qualifying such a concern as unacceptable. Because we have already defined the extremes, let's pay attention to a substantial percentage of our respondents (one third) who declare that they were never concerned with this issue, for them, the animal husbandry is an activity which is not included in their daily ``agenda``.

It is still an important part of the population which after these directives can be "radicalized" within the meaning of polarization in one or other of the extremes. It is understood that an important growth of those who sustain that this type of occupation is a normal one, will make it very difficult to apply the future EU regulations, certain oppositions being predictable, and for this reason a strategy with objective arguments must be thought in good time in order to convince the population to apply these regulations. Just because we mentioned the thinking of some early action measures, that the rules and EU directives must be applied in the shortest time, we will present on each response option (where the result is interesting from the sociological point of view) the influence of the personal variables age, gender, education, etc. In this case we can certainly say that the animal husbandry is more tolerantly considered with the increasing of the age limit. In other words, the more they age, the persons tend to accept it as a normal occupation. However, there is no influence of gender regarding the responses the subjects give. There is almost an overlap in their responses, the differences being minima, of maximum 1-2 percent. In this way, we can say that both men and women in proportions that reach 42-43%, consider such a job (in town) as normal.

The studies have a direct influence on the agreement with such an occupation in the urban areas. More specifically, the more the training level increases, the lower is the perception of this activity as normal. Although we had expected that the residing area of the subjects (in blocks or in houses) to have a strong differentiation action of the inhabitants from the point of view of the given answers, knowing that the area of residence influences the mentality, in the present research the theory was not fully confirmed. And those who live in blocks (43%) and those who live in houses (50%) agree with the normality of such an occupation in the urban area. However 22.7% of those living in blocks define this occupation as unacceptable in a city, unlike those living in houses, which even 1% does not provide such a response. However, there is a strong correlation between a last (or present) state of fact and the way the subjects perceive this type of occupation. Thus, it appeared that those who have raised animals for sacrifice agreed in a proportion of two thirds with such practice, compared to only 29% of those who hadn't raised any animals and who believe that such activity is normal in the city. For a better understanding of the way we have divided the community, it should be mentioned that from the point of view of the questionnaire's construction technique, we used what it is called the ``filtering responses``. In this way we have divided the initial collectivity into three sub-collectivities that resulted from the received response.

In the first new resulted sub-collectivity and the most important one, of the subjects who in one way or another agree with the animal husbandry for sacrifice in the urban areas by accepting this occupation as a normal one, a certain hierarchy of the reasons was installed, which they bring in order to support their opinion. Let's note that the most important reason is that of a minimum of urban comfort, or in other words in the opinion of many citizens from Lupeni, any activity is allowed as long as it does not affect in any way (in a negative way of course) the way of life of others (48.5%). A set of motivations follows, which carefully analyzed lead to the conclusion that including the argument "to raise and sacrifice animals in favorable conditions" (30.3%) can be added to that minimum of urban comfort mentioned above.

Let's remark, not without astonishment, that the idea of tradition of animal husbandry in this area doesn't include a quite large number of subjects, element that helps the authorities on the one hand, but on the other hand indicates a "break" with the past and this "break" unfortunately manifests itself in other areas of concern not only in the subject of the present study. We detail the analysis by presenting the correlations that we have done for this aspect and that can help us in interpreting the situation. We determined that with the increasing of the age, it prevails as a reason in accepting this occupation that minimum of comfort that we have already discussed, but for the young persons, arguments of legal nature prevail, translated in zoo technical rules: "if they raise and sacrifice them in an optimal way, nobody can interdict them." We also determined that women (52.2% of them) in comparison with men (44.4%) give more importance to the fact that this activity is not disturbing for others. Even if the difference is not large, it nevertheless indicates a way of thinking that must be taken into account in the future. From the perspective of instruction, there are no differences; regardless the educational level, the main reason for supporting this activity as a normal one consists in not disturbing the others. The same argument holds true for the correlations with the building in which they live (in a block or in a house) or if they have ever raised animals for sacrifice.

In the second (sub) community, of those who pronounced categorically against such activities in the urban area, an argument that is related to what we might call urban civilization, and which normally doesn't match with the specific preoccupations of the rural area. Furthermore, the following arguments refer specifically to this occupation as indissolubly linked to the rural world. Moreover, there are reasons of animal protection and almost one third of the respondents think that animals from the urban areas live much worse than those who live in the rural areas. It's a rational consideration and we appreciate that must be the strong argument for establishing the public campaign to support the new EU directives on this line. Considering the common reference to the rural area we can reunite the subjects that give it as a motivation of inaccessibility of such an occupation in the city, through the conditions offered in relation to town, so almost 60% of those forming the second sub collectivity have in mind the so-called "animal rights". Although this sub collectivity is about half compared with the first one, we will present, however, the elements that result from the correlations. We do this because on the basis of the arguments made by them, and detailed on different variables, the strategy for determining the population to accept the future EU rules related to raising of animals in the urban area can be built. And those

conditions are encountered only in the rural areas. We mustn't however neglect the motivation, being singular, it includes the largest number of subjects, and it demonstrates that young people are more critical than older people, considering this type of activity as one that indicates a lack of civilization. A similar situation with the one encountered on the category of age is found in the case of analyzing this response on the category of gender. In the case of the studies the lack of civilization is more and more announced in a vehemently way in the same time with the increasing of the education level, but the above mentioned merging remains valid, that of the consideration regarding the ensuring of the optimal conditions for raising and sacrificing the animals, which cannot be held but only in the rural areas.

Absolutely interesting is the motivation brought by those who have raised animals, a ratio of almost two thirds appreciate that the fact of raising animals in urban areas is a lack of civilization. We would have expected another response, but from those who have never been "caught" in such an occupation. There is a change of mentalities, an evolution of them. We must specify that we are still in the presence of the second (sub) collectivity, the received responses being valid only in the case of those who compose it. We wanted to see if in their case, who oppose, the possibility to change their option is true or not, if someone brought a legal argument: only one third of them would remain categorically opposed to raising animals, opposing with all the available arguments. A little over half would passively accept the new rules and almost 14% agree to involve themselves in such an activity. In this way we demonstrated that the rules have an undeniable influence in the social body. Their influence remains valid in the opposite direction, discouraging those who have such occupations in urban areas. So, a new marking point in the strategy of persuading people is that of the norm in relation to tradition and customs. In detail, the situation is as follows: regardless of age, the subjects accept the norm and obey it, even if they disagree. The highest degree of acceptance and submission to such legislation is found in the category of people with higher education, 60.9% of them agreeing to comply even if they do not agree, compared with only 28.9% of those who have only eight classes. People with higher education are vectors of influence in the community, their behavior being a model for the others.

From this moment until the end of the study the collectivity is reunified, the considerations being generally available, except the detailed analysis of the variables (gender, age, education, etc.) where there is a logical differentiation of group / the category of the subjects: male / female, youth / adults / elderly, etc.

And from this point of view, of the time period needed to change a habit or a tradition, people are proving extremely connected to reality, being aware that stopping a practice that has lasted for years, decades practically cannot be done at once. Over 70% of the citizens agree that the effort to persuade those involved in such activity is a laborious one, which will extend from one year to several years. The awareness of this effort is supported by the interviewed subjects regardless of the age category they belong. The same awareness is manifested in the gender groups, men and women thinking in the same way, but also in the categories of education, in the fact they live in houses or blocks. Those who previously had farming as occupation or they still have it, think that it will take a long time to convince people to a higher proportion than those

who have never made from this activity a principal or collateral occupation, but in any case an income bringer. The main idea that can be drawn from here is that the future strategy for determining the citizens' acceptance of the EU rules regarding the raising of the animals for sacrifice in the urban areas, must be a comprisable one and have the minimum time limit a year.

Definitely, there will always be people who oppose certain initiatives of the administration or those that are executed by the local administration, this time as a relay station of the central administration. That is why we chose to probe the public opinion on this issue and to determine which solutions would be most relevant in such a case. We started from the premise that if not all, at least some of those engaged in animal husbandry earn their daily money largely due to this occupation. Nearly half of those interviewed believe that by eliminating a source of income, and especially if it is the only one, people should find jobs. Obviously the new jobs must be adjusted to their level of training; in other words, in order to avoid a wrong employment policy, as it happened after the mining layoffs in 1997 (when many of the few offered jobs required computing technique operator courses) it's necessary that the alternatives of employment to be known in advance, so that the authorities to convince not only through legal arguments, but especially by seriousness. We remark certain hardness, the other half of the population think that they should be compensated in an amount equivalent to the value of the animals they raised or simply to prohibit them such a practice, without mentioning anything about another job. It comes somewhat in contradiction with the fact that this process is one that takes time as we have seen, involving a series of well-known people in the community, just to avoid excesses.

It is interesting to see who are the most drastic citizens in expressing their opinions, which are the elements that characterize them. The idea of simply prohibiting such work tends to increase with education, but it isn't at a high level, however we remember it as a trend. It's the same thing in the case of age, the most categorical group being with the limits between 18 to 25 years, almost one quarter of them being supporters of the rapid prohibition, without providing a job. One of the most difficult problems to solve in the Jiu Valley, not just in the city of Lupeni, is the quality standard of living. It is good to know that the last decade has been marked by many economic reforms, (we refer to the Jiu Valley area) which unfortunately led mostly to the restructuring of the staff without replacing any new capacity of the abolished mining exploitations. Ten years after the important changes in 1997, the population of Lupeni is concerned with major phenomena such as *poverty* and *unemployment* at a higher level than that of 1999, as it resulted from another research that we call because the economic element has the priority this time. The comparison between the two temporal moments suggests that the state of the material life of people in this area has not even met stagnation, but a significant worsening. We consider that the worsening is an important one, not because there was an increase of those who were affected by these phenomena, but rather that it occurred due to the population decrease of the Jiu Valley (about 30,000 people in the past decade), trend that ought to facilitate the finding of a job in an easier way and to relieve the authorities from the pressure. The authorities had been previously forced to deal more with the developing of the social programs than with the economic development projects for the Jiu Valley.

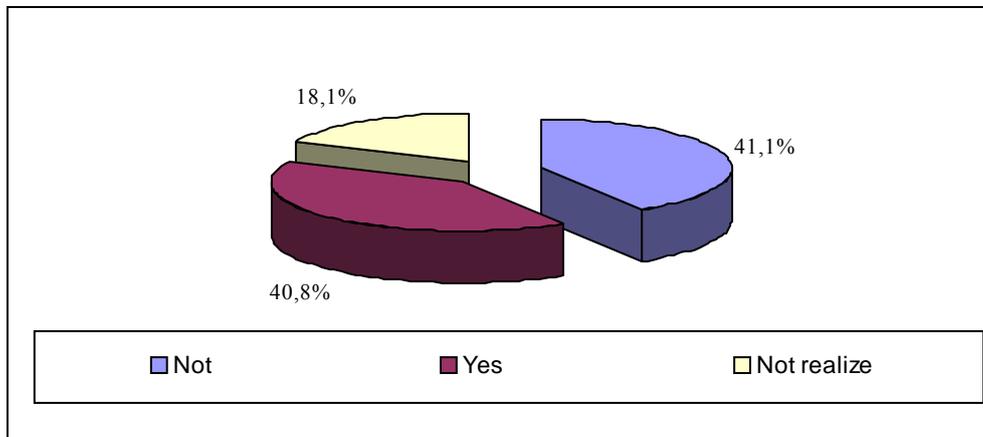


Figure 2. EU directive will negatively influence the city's economy?

And for this reason, the fact that 40.8% of the respondents are convinced that the EU directive to ban the raise of animals for sacrifice in the urban areas will negatively affect the economic status of Lupeni, must raise major questions for the local administration. Both from the perspective of the application of this directive, i.e. convincing people, especially from the perspective of labor absorption who leaves from a formal sector that it cannot be said that it exists, but it works in the underground. At least at the conscience level of many of those interviewed by us. It results from here a new element of strategy: if at the level of the collective mental is presented a wrong idea, like the previous one, then it must be involved in its dismantling as quickly as possible, using official statistical data which cannot be countered. However, if it is true, having economic fundamentals, it is necessary to develop a list of concrete visible actions, the disappointment of the government's assurance from the years 1997-1998 is fresh in the minds of the inhabitants even now, when although, jobs were promised, they weren't established.

Surprisingly or not, the link of the expressed opinions about the economic damage of the city with different variables considered are not so conclusive, existing a relatively equal distribution of the responses, that makes any category of age, education or gender not to emphasize in any way. The only attribute that definitely has an influence is that whether in a moment or another, the subjects were involved in animal husbandry. The difference between the expressed opinions is more than 20 percent, those who were breeders considering that the EU directive will undoubtedly affect in a negative way the economic status of the city. Although the chances of a situation in which investors are willing to invest large sums of money towards the establishment of a farm near Lupeni are minimal, there are many people who would agree with the breaching of the EU rules if the investments created new jobs. By "many people" we understand not less than half of those who were included in the study. It's not surprising only the availability of the subjects to evade legal provisions that acts throughout the EU, but also the passivity with which more than one third of the respondents would face such a reality. It remains only 12.8% of the respondents

who would oppose, without agreeing with any modality in which this hypothetical situation would materialize.

Once again the variables crossing gives us a series of elements that "would have dropped" during the primary processing of the data, i.e. the determining of the frequency with which certain responses manifest, from here it results only the share which every response has in the total of the variants. We succeeded in this way to determine that the subjects regardless of age group mostly agree with the establishment of farms, even if it contravenes the EU rules, provided that from such investments it would result new jobs. Also, men are more open to such an idea, women having a certain reticence. It is possible that this type of reticence to be generated by the fact that generally, the work in such places is done by male persons. Hence a slight tendency of minimization such economic opportunities by the female subjects. On the other hand, people with a lower education level are more willing to accept such investments; the available strong argument is that of the appearance of new jobs. Closely analyzing their choice (and even the general one) we cannot say that it's a wrong one, in the context of the lack of jobs and of a population with a high-poverty level. Let us be allowed to appeal to the data from other research that we conducted in the same space, just to justify the option that was imposed: the acceptance of a private initiative that would break the EU rules, in order to improve the quality of the population's material life.

Regarding the assessment of the quality of people's material life, we found a fact which doesn't surprise us. If in December 1999, 67% of the questioned people from the Jiu Valley said that they used to live good (and very good) before 1990, the population surveyed in 2007 (and we mean those who were adults before 1989, so knowledgeable of the situation) at a rate of 63% believes that by 1989 their material life was good (and very good). A minimum difference, due to the depopulation, which highlights the inefficiency of the actions that took place to improve the economic and social crisis. For the period of 1990-1996, the research in December 1999, the interviewed subjects showed a good material level in 40% of the cases. For the same period, but in the research from 2007, 46% of them remain on the idea of a good material life. Another interesting comparison is for the period 1997-2004. We would like to point out, before going ahead with the exposure, that the periodicity is not an arbitrary one, but it takes into account, rather relatively, the political development of Romania, just to record the fluctuations experienced by the population, considered by us, as the finest receptacle of the facts. In this way we were able to establish by comparison, that at the level of the above mentioned period, but set in December 1999 in the research from 1996 to 2000, only 4% of the study subject said it was the beneficiary of a good material life. Let's specify that the research from December 1999 also took place just a little over two years from the major layoffs, placing us in interviewing the subjects when, according to the theory, the chronic poverty is installed. Returning to the present, i.e. to the resulted data from the research of 2007, it concluded that for the period 1997-2004, (the interval 1997- 2000 is excluded, we have already defined it and this is also the artifice that we call) but understood with and through the existent modifications in the interval 2000-2004, the social assistance had a very important role in the Jiu Valley, 33% of the respondents considered that they had

a good standard of life. After 2005, there aren't any major changes, good or bad in life and we could tell that it stagnated at the threshold reached at the end of 2004.

Not without interest is the agreement, bigger with almost 20 percent of those who raised animals for sacrifice, comparative with those who hadn't raised animals, towards the establishment of such farms. A relatively similar situation is encountered in the case of those who have raised/raise pets and who partly help us understand why people oppose to the euthanasia of stray dogs. To better understand this mechanism of thought both towards the agreement of the establishment of such farms that contravene the EU provisions but also towards the acceptance of pets, we tried the deepening of a situation which proves quite problematic. Thus, we asked the subjects about their attitudes and other inhabitants' attitudes towards pets and the laws that might affect them, understanding by this the "adoption" of them and raising in collective spaces such as blocks with dozens of buildings. The feedback that we asked was performed on several variants (e.g.: not at all, very little, little, much, very much, total) we merged them (those that are suitable for merging, i.e. very little + little, much + very much) just to emphasize what is suggestive. We found that the attitude of the population towards pets is more than favorable: 41% of the citizens are not disturbed "at all" by the pets that "reside" in blocks (dogs, cats, etc.) and 26% of them only "very little + little".

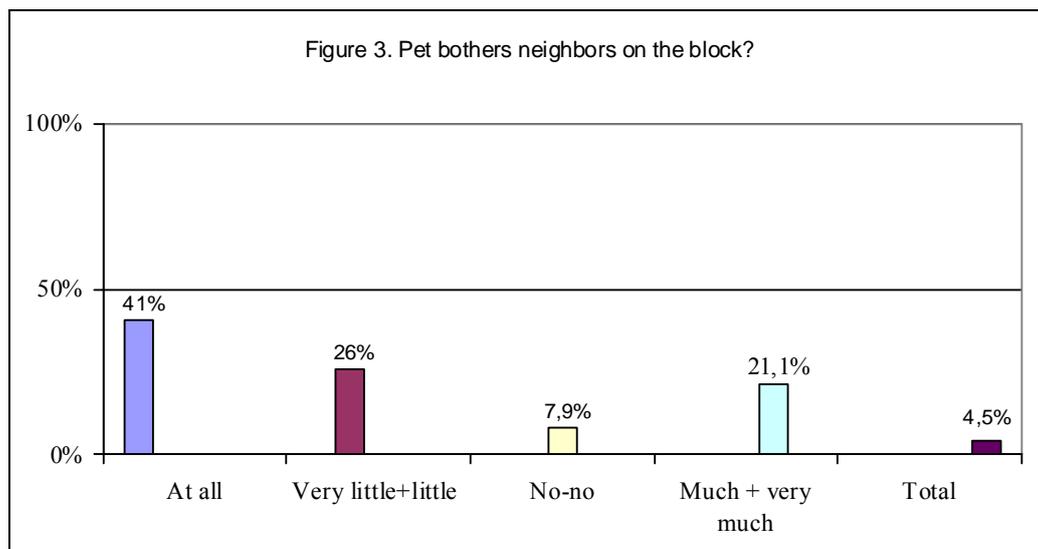


Figure 3. Pet bothers neighbors on the block?

It's an element that the local administration must take it into account in the resolving the delicate issues regarding the stray dogs, most of the citizens not agreeing, and we say this with certainty, with the gathering the dogs from the streets only to be euthanized. Because it is a very interesting aspect that can offer many interesting elements, we will detail the question through the point of view of different categories that we can consider. Regardless of age, the interviewed subjects prove to be animal

lovers, even if they don't personally raise animals, they tolerate their presence inside the block they reside. The situation is also repeated in the distribution by gender, the subjects regardless of gender or membership prove to be pet lovers. In fact it is a mentality that is found in any variable (of identification) which we took into account, its presence being demonstrated in the case of the studies: regardless of the subjects' education, pets are tolerated, without disturbing or if they do it, in a very little way. Once again we can feel the difference between those who live in blocks and those living in houses (with garden), which we announced in the previous pages, from the perspective of the mentality they prove. Those living in blocks accept the presence of the animals, but in a certain proportion, unlike those who reside in houses and, if they lived in blocks, they declare they wouldn't be disturbed "at all" if their neighbors had pets. Here's a new element that must be considered in the strategy of persuading the population to abandon animal husbandry, especially since most of the people that have such an occupation do not reside in blocks.

In the support of those above listed, comes the answer of the subjects to a question that explicitly targets the reaction they would have if a law categorically prohibited the raising of pets in blocks. Over half of the respondents (53%) believe that such a law would be received with hostility, people opposing it, the main reason being that many people are animal lovers. Only one quarter of the subjects is categorical, considering that such a passion must "move to houses." In each age category, from the smallest to the largest, the general opinion is that such a law would be "badly received". There is thus a uniform distribution of the opinions in the social body, the mentality of the people being formed in this way in the first years of life among the families they were born. A difference that is required is quite obvious, is that between of men and women. The females are proving more attracted to the idea of protecting the animals, their reaction against a law prohibiting their raising in blocks, surpasses the men's one with over 13 percent. The reaction of resistance is proper even to those who are able to speak about this matter, namely the residents of the blocks, which in a proportion of 52% believe that such a law would be received with hostility by the citizens.

Finally, those who currently raised or raise pets, believe in their majority (65%) that a law requiring people to give up raising pets would be received with great restraint, if not with hostility. Unlike those who raised/ raise pets, the reaction of those who don't have such a passion is much more moderate, only 38% of them are convinced that people would react in a negative way.

3. THE CITIZENS' ATTITUDE TOWARDS DOUBLING THE GREEN AREAS

For years, the environmental problems in Romania have been ignored, other issues having priority on the agenda of the Parliament or the Government. Beginning with the Law no. 265/2006 from the 29th of June 2006, for the approving of the Government's Ordinance 195/2005 regarding the environmental protection published in the Official Gazette no. 586 from the 07th of June 2006, Romania has made a decided step in protecting the environment.

One of the attributions of the local administrations in this respect is, and we quote here just from the above mentioned Act, "to take appropriate architectural features, to optimize the density of the housing, while keeping, maintenance and development of the green spaces, parks, the alignments of trees and street protection curtains, of the landscape planning with ecological aesthetic and recreational function, in accordance with the town planning. Moreover, the same Law explicitly states that: "The change of the land's destination that appear in the urban planning as arranged green spaces is prohibited. The private lands, which appear in the urban planning as green areas, or unprotected planted areas whose destination can be changed only in compliance with the specific valid regulations are exempt from the provisions of par. (1).

Finally the environment protection has become a priority for Romania. And especially for the Jiu Valley and implicit for the Municipality of Lupeni that because of the mining has suffered from the point of view of the environmental quality. In a report assessing the socio economic situation of the Jiu Valley in 1997, the regional staff of the National Agency for Development and Reconstruction of the Mining Areas appreciated that the natural environment of the Jiu Valley, abused decades of industrial activities has an aspect of "destruction and horror". In such a context comes the EU directive which provides that the green spaces in the Jiu Valley must be doubled. Certainly, between the legal provisions and putting those into action there are the local authorities which have the important task to materialize these directives step by step. The most important partner of the authorities was, is and will remain the local community. From the way it is trained and involved in the projects implementation of the authorities depends their realization and obviously a better quality of life, this time on its environmental dimension.

Although in a previous research (conducted in July 2007) it resulted that 56.2% of the citizens of Lupeni consider that the state of the environment from their locality is "good to very good", we realized that there is certain confusion on this line. We mean that the environment is not limited to the sanitation of the urban areas but it also considers its expansion to meet the biological requirements of the inhabitants. It's not worrying the fact that a large number of those who believe that green areas are far below to what would be needed, but especially that one third of the respondents who believe that the green areas are almost non-existent. Merging the percentages, it results that three quarters of Lupeni's residents are unsatisfied with what they are offered under the name of green areas.

Although the large share of subjects who issued such a view is a great one, making the detail of the answers by category of subjects almost unnecessary, we use it just to give as much weight to the assertions with reference to the statistical tables. In this way we determined that regardless of age, people are dissatisfied, the available green spaces they have are not only insufficient but almost non-existent. A similar situation is found in the division by gender. Both men and women in almost equal proportions are unsatisfied with the surface of the green areas. Exactly the same feeling of dissatisfaction is found on studies or depending what type of the building they live in.

Knowing the facts found on the field we asked the citizens if they agree with the doubling of the green spaces, especially in the circumstances where such an undertaking may involve expropriations of some people who personally own lands in the city area and after the planning, the land could be given to the public. Although 75% of the respondents believed that the green spaces are undersized, the reaction to such a situation, in which some people might be affected in their interests, through expropriations, was also undersized, only 53% of them believing that the measure is just, as long as people are compensated correctly. However, the rate of 53% is high enough to give the authorities the confidence they need to initiate such actions, the community support being provided, especially if the results are obvious: new public spaces perceived as parks, gardens etc.

We can remark a greater attraction to the positive response at the older age groups, people who exceed the limit of 45 years and up to 75 years or over, agree with expropriations in a much bigger proportion than the younger persons, certainly, in the terms of some fair compensations. In the category of gender there can be felt a visible difference in the favor of men, who are more willing than women to support expropriation. With some surprise we must note that people with higher education support the expropriations to a greater extent than those with primary or medium education. It's a mechanism which we won't comment, but the encountered situation leaves place for other studies to discern this type of thinking.

The last correlation presented here is that those who live in blocks agree in a double degree with the expropriations than those who live in houses, definitely affected by such action of the authorities. Indisputably any infringement of the private property is an extremely delicate issue, even if it has been designed for the good of the community, the public interest. To avoid any form of dissension and dissatisfaction, the local authorities are obliged to seek the views of the community, already defined as the most important partner they have in the work of construction/reconstruction of the city of residence. Without this public consultation, of the consultative democracy (and even of the participating one, although this requires a great effort from the authorities), many administration's decisions can be contested, aspect that makes difficult their application.

The population knows very well the zone and realizes that the lack of the built-up land (because of the geography of the area), desired by all those who could be expropriated, is a factor that could hinder the work of increasing the green areas. Absolutely normal, those deprived of the land which they had in the personal property should be compensated, and the compensations must model on the specific of the area. The most appropriate form of compensation, according to those interviewed, is the mixed one, i.e. the land owners must receive from the state the value of the land in money and other lands in exchange, to an agreed formula between the authorities and those expropriated, or after some detailed rules set by the government. Certainly, it mustn't be ignored any compensation in singular form: money or other lands, the appropriate form of compensation remaining at the latitude of the local administration that must consult with the community, to engage it in the decision process.

The form of compensation is one that knows an overall majority block on the money + land mix. Analyzing it on categories of age, it fluctuates in an interesting way, and we present the formed majorities:

1. 18-25 years - mixed compensation (36%);
2. 26-35 years - the land in exchange compensation (35.6%)
3. 36-45 years - mixed compensation (43.5%);
4. 46-55 years - money compensation (35.1%);
5. 56-65 years - mixed compensation (53.1%);
6. 66-75 years - the land in exchange compensation (45.9%)

The variation seen above is no longer valid in the case of gender, both male and female persons tilting in a majority way to the form of mixed compensation. A new fluctuation, and we expect in this case, depends on the studies of the subjects:

1. four classes - an equal division between the three forms of compensation;
2. eight classes - the land in exchange compensation (41.5%);
3. professional school - mixed compensation (30.3%);
4. high school - money compensation (37.5%);
5. superior - mixed compensation (45.5%)

The form of compensation is a key element in this equation of expropriation for the benefit of the public interest, and an administration that wants to settle the sources of conflict and to implement as soon as possible the initiatives that it has or it has been delivered in a centralized way, must know the community status of spirit. Another issue of collective interest is the destination of the expropriated lands, which previously could not be categorized as green areas. It is necessary to understand that under the name of "green areas" people can understand children's playgrounds or parks, gardens etc. To learn exactly what the citizens of Lupeni want, we asked such a question. It prevails the desire of establishing new children's playgrounds and parks.

Merging the two variants (the merging through the similar themes of the two options is allowed, and we refer to the destination, the playgrounds being practically synonymous with parks, or vice versa; we did this differentiation, however, because some people understand through parks special places that can silence them / walk freely, children playing in the park is somewhat excluded by the arrangement of the place: hedges, flowers, grass, etc.) it concludes that over 75% of the people want parks.

We detail the encountered situation by the way it is represented in every individual variable (which corresponds with our analysis). The age is a factor which does not differentiate between the individuals from the perspective of the new lands' destination that are in the possession of the administration, the majority made up for each category tilting for the establishment of new playgrounds for children. The same majority is in the case of the gender category, men or women giving priority to the same playgrounds. In the case of the studies there is a variation of options which confirms that some people do differentiate between "playgrounds" and "parks". It's the case of the people with a higher education, who are opting in a majority way for the establishment of parks.

4. THE LACK OF THE CONNECTION TO THE SEWERAGE AND DRINKING WATER NETWORK IN THE HOUSES WITH YARDS. ITS PERCEPTION IN THE CONSCIOUSNESS OF THE INHABITANTS OF LUPENI

Another provision of the Law. no. 265/2006 from the 29th of June 2006 states the following: the obligation of the physical and juridical persons of not polluting the surface waters by washing objects, products, packaging, materials; the obligation of the juridical persons of not discharging any wastewater, faeces into the surface waters or ground waters.

To comply with these provisions it's necessary that the buildings, and this time we refer in particular to those with yards, to be properly equipped: water, sewage, garbage cans that should be raised daily by the specialized departments of urban sanitation, etc. . If the buildings don't have a connection to the town sewerage it's understood that the waste water (full of chemicals and even faeces, if there are makeshift toilets whose leakings are not captured in specially equipped septic tanks) are discharged in certain beds of water. In this way, the pollution is a constant of the area, at least from this perspective. Such a situation comes glaringly in contradiction with another provision of the above mentioned Act stating very clearly that the authorities have the obligation "to improve the microclimate of the settlements through the development and maintenance of the water sources and beds of water inside and from the surrounding areas of them.

We tested the perception of the people from Lupeni whether there are such properties that are not connected to the municipal sewerage system, the damage being clearly stated by law. Although the owners are incriminated too, the authorities are primarily responsible for such a state of fact. It is not only logical but mandatory for the local public administration to respect and implement its obligations by law. It's also logical that such an achievement requires engineering knowledge and serious amounts of money that is unlikely to be held by ordinary people. On the other hand, the owners must show their interest in such enterprises, accepting and respecting the law's prescriptions, even contributing with the respective amounts (just like in the case when somebody connects to the gas main column, for example), or supplying physical work. Regardless of subjects' age, they consider in a majority proportion that the fault is divided between the owners and the authorities, but with the above clarifications. Men are much more accusers than women regarding the authorities that tend to divide the blame between the owners and administration.

The level of education of those questioned had a role in sharing the opinions. Here's how they were divided: those with four, eight classes are most convinced that the guilt belongs exclusively to the authorities. From vocational school, high school and ending with those with a higher education, the majority opinion is that the blame is equally shared between the two involved parties: owners and authorities. Interestingly, those who live in houses aren't exonerating themselves, blaming only the authorities, but 75% of them agree that the guilt is a common one. There is no doubt that such a fact is a favorable premise for the positive development of the situation, with a desire from the owners to cooperate with the

authorities. There isn't always possible from the technical point of view that some work can be done, even if it's for the benefit of the community. For example, some of the houses with a yard may be located far away from the city sewage system, so there is no justification for the financial effort made.

There are, however, some backup solutions that put into practice can contribute to solving the problems related to the protection of the natural environment. Almost two thirds of the respondents believe that in such cases the municipality must interfere and bear the costs of the works by starting and completion of some septic tanks. There are opinions that the owners should be required to build these septic tanks, but the law explicitly requires the administration to protect the natural environment. Therefore, it is necessary for the administration to interfere and carry out such work, incurring the costs in full, and then the owners will use these septic tanks and will be forced by the law to maintain them. Almost invariably on each age category the majority opinion is that the authorities must build these septic tanks. It's the same case with the distribution by sex or education. Although those who live in blocks and those who live in houses considered that it's the duty of the authorities to interfere, the subjects who live in houses surpassed those who live in blocks with 15%. In their view a mechanism operates, which seems as logical as possible: if the authorities are obliged to enforce the law, then the authorities are required to secure the necessary in order to apply the law. In this case the Law no 265/2006.

We sought to determine how the community reacts if there are buildings in the city where people live without having any toilets with water. Some criticisms of the community are related to the break of some basic hygiene sanitary rules that can affect the health of others (52%) and also the environmental damage (14, 1%). Furthermore, we exposed below in a suggestive graphic form the hierarchy considerations that the citizens make, regarding this state of fact.

The citizens of Lupeni feel fully affected, two thirds of them declaring (by merging) such a fact, whether they refer to the health standards or to the environmental ones. It cannot be said that one of the age categories declares that it's more affected than the others, existing a relative uniformity of the responses. The same consideration is valid for the male and the female persons, in a proportion of almost two thirds being declared the modality in which they feel affected. The most obvious correlation is with education.

Thus, the more the level of studies increases, the higher the percentage of those who feel affected by the fact that some fellow-citizens do not have a minimum hygiene item is. The last studied issue is that of the connection to the water supply network. It is in fact a matter which is coupled with the lack of the sewerage systems, being less plausible to exist current drinking water in the buildings affected by the lack of the sewerage and toilets with water (there are not excluded the cases where the owners, through personal efforts have arranged special wells equipped with water pumps, to replace the lack of the connection to the municipal water column). Again the people's views are majority in incriminating the lack of the current water, motivating the break of the sanitary standards. But there is, however a question related to the nearly 40% of the respondents who believe that the only affected people are those who do not have tap water in the buildings they live.

The opinions expressed by the representatives of the community, those included in the study are as clear as possible: the local administration must urgently interfere and connect them to the municipal water column. If, technically it is not possible to realize this work, then the same municipality must reconsider its modernization strategy through the development of some studies that must express the clear positions in the terms of possibility or impossibility of drilling some wells in order to supply with drinking water the buildings which until this moment do not benefit from this facility.

REFERENCES:

- [1]. **Chelcea, S.** (1995) *Cunoașterea vieții sociale*, Editura Institutului Național de Informații
- [2]. **Chelcea, S.; Mărginean, I.; Cauc, I.** (1998) *Cercetarea sociologică*, Editura Destin, Deva
- [3]. **Mărginean, I.** (2000) *Proiectarea cercetării sociologice*, Editura Polirom, Iași
- [4]. **Miftode, V.** (1982) *Introducere în metodologia investigației sociologice*, Editura Junimea, Iași
- [5]. **Miftode, V.** (1995) *Metodologia sociologică*, Editura Porto Franco, Galați
- [6]. **Mihăilescu, I.** (2000) *Sociologie generală*, Editura Universității din București
- [7]. **Rotariu, T.; Iluț, P.** (1997) *Ancheta sociologică și sondajul de opinie*, Editura Polirom, Iași
- [8]. **Rotariu, T. (coord.)** (1999) *Metode statistice aplicate în științele sociale*, Editura Polirom, Iași
- [9]. **Zamfir, C.; Vlăsceanu, L. (coord.)** (1993) *Dicționar de sociologie*, Editura Babel, București
- [10]. Ordonanța de Urgență a Guvernului nr.195/2005 privind protecția mediului, Monitorul Oficial nr. 1196/30.12.2005
- [11]. Ordonanța de Urgență a Guvernului nr.114/2007 pentru modificarea și completarea Ordonanței de Urgență a Guvernului nr.195/2005 privind protecția mediului, M.O. nr. 713/32.10.2007
- [12]. Legea nr. 265/2006 pentru aprobarea O.U.G. nr.195/2005 privind protecția mediului, M.O. nr.586 din 06-07-2006
- [13]. Legea nr. 24/2007 privind reglementarea și administrarea spațiilor verzi din zonele urbane, M.O. nr.36/18.01.2007

ETHICAL AND PHILANTHROPIC RESPONSIBILITIES IN PRACTICE

GEORGETA GRIGORE *

ABSTRACT: *Along the time, enterprises were created as economic entities meant to supply goods and services to the members of society. Profit is the main incentive for entrepreneurs. First, the enterprise was the basic economic unit form for our society. Therefore, its main role was to produce the goods and services necessary to consumers and to achieve an acceptable profit along that process. At some point, the profit seen as incentive changed into the concept of maximum profits, the one that lasted until now. But my crucial question is: to what extent should a company pursue the profit? This paper aims to provide a short overview on this issue.*

KEY WORDS: *corporate social responsibility; ethical responsibility; philanthropy; performance indicator; profits*

JEL CLASSIFICATION: *M14*

1. HISTORICAL PERSPECTIVE ON CSR

The concept of social responsibility that prevailed in the US during most of the history was fashioned after the traditional or classical economic model. The classical view held that a society could best determine its needs and wants through the marketplace. If the business is awarded on this ability to respond to the demands of the market the self interested pursuit of that reward would result in society getting what it wants. Thus, the invisible hand of the market transforms self-interested into societal interest.

Years later, when laws constraining business behaviour began to proliferate it might be said that a legal model emerged. Society's expectations of business changed from being strictly economic in nature to encompassing issues that have been

* *Assist. Prof., Ph.D., "Constantin Brâncoveanu" University of Pitești, Romania,*
georgeta_grig@yahoo.com

previously at business's discretion. Over time, a social model or stakeholder model has evolved.

A modification of the classical economic model was seen in practice in at least three areas: philanthropy – contributions to charity and other worthy causes, voluntary community obligations and paternalism – appeared in many forms and one of the most visible was the company town.

The emergence of large corporations during the late 1800's played a major role in hastening movement away from the classical economic view. As society grew from the economic structure of small, powerless firms governed primarily by the marketplace to large corporations in which power was more concentrated questions of responsibility of business to society surfaced.

Neil J Mitchell in his book, "*The generous Corporation*" presents an interesting thesis regarding how CSR evolved. His view is that the ideology of CSR particularly philanthropy was developed by the American business leaders as a strategic response to anti-business fervour that was beginning in the late 1800's and early 1900's. The anti-business reaction was the result of specific business actions such as railroad price gouging and public resentment of the emerging gigantic fortunes being made by late nineteenth century moguls such as Andrew Carnegie and John D Rockefeller.

The business leaders realized that that the government had the power to intervene in the economy and there was a need for a philosophy that promoted large corporations as a force for social good. Therefore, they attempted to persuade those affected by business power that such power was used appropriately. Therefore, philanthropy became the most efficient means of using corporate wealth for public benefit.

The period from the 1950's to the present may be considered the modern era in which the concept of corporate social responsibility gained considerable acceptance and broadening of meaning. During this time, the emphasis has moved from little more than a general awareness of social and moral concerns to a period in which specific issues such as product safety, honesty in advertising, employee rights, affirmative action, environmental sustainability, ethical behaviour and global CSR have been emphasized.

CSR refers to the corporation's effort to make positive social change; actually, CSR has the role of an NGO in the society. The main goal of a business is to obtain profit but, more than that, the company is searching for ways of survival, trying to stay in business. And here comes an interesting question: why the companies should change behaviour if they have profit? There might be three hypothesis: globalisation of business (the case of Nike), the Seattle hypothesis (WTO meeting widespread discontent with corporate (responsibilities) and global polity).

2. APPLICATION OF ETHIC RESPONSIBILITIES

One of the great advantages of Carroll's definition (Carroll, 1979) is the extension of the components of the responsibility pyramid, that McGuire referred to in 1963, and who said: "The idea of company responsibilities supposes that the

corporation not only has economic and legal obligations, but also certain responsibilities towards society extending beyond these obligations” (McGuire, 1963).

By identifying and distinguishing the ethical and discretionary/philanthropic categories, Carroll clearly explains what McGuire called responsibilities extending beyond the economic and legal responsibilities. Practically, the economic and legal responsibilities are “requested”, the ethical responsibilities are “expected”, and the discretionary/philanthropic ones are “wanted”.

Although the economic and legal responsibilities include ethical norms regarding correctness and justice, ethical responsibilities those activities and practices considered to be forbidden by the society, whereas they are not coded by law. Ethical responsibilities include those standards, norms or expectations which reflect the concern towards what the consumers, employees, shareholders and the community consider to be correct, fair and in compliance with the respect or protection of the moral rights of stakeholders.

In some way, ethics and values come before establishing the laws, because they become the reason itself for creating laws and regulations. For instance, the changes of environment, of civil rights or of consumers reflect the basic modifications of the society values and that is why they have to be regarded as ethical tendencies foreseeing and later on constituting the legislation.

On the other hand, ethical responsibilities can be considered as those responsibilities including the new values and norms that the society expects to be fulfilled by the enterprise, even if such values and norms can reflect higher performance standards than those provided by law.

In this regard, ethical responsibilities are often defined wrongly and they are permanently in a public debate due to their legitimacy and therefore to the frequent difficulties that the enterprise has to face. Besides those demarches related to ethical expectations coming from the groups of enterprises, there are the inferred levels of *ethical performance* imposed by the great ethical principles of moral philosophy. These can include principles, such as: justice, rights and utilitarianism. The ethical changes within the enterprise during the last decade clearly established that ethical responsibility is a legitimate component of corporate responsibility.

The ethical component should be considered in a dynamic interaction with legal responsibilities. In other words, the ethical responsibility permanently makes the legal responsibility to extend and at the same time imposes even higher expectations to businessmen in order to act at an even higher level than the one imposed by the law.

In Table 1 there are synthetically presented some characteristics of ethical and philanthropic responsibilities regarding laws and regulations, obeying ethical and moral norms, the esthetical sense, projects aiming at improving the quality of life.

In essence, ethical responsibilities refer to the corporate voluntary actions to promote and to pursue social goals extending their legal responsibilities. These goals are important for the society and for the different stakeholders in the society, but their promotion and pursue are beyond the immediate financial interest of the corporation.

Table 1. Ethical components of corporate responsibility

Ethical (responsibility) components
1. It is important to act consistently according to the expectations of the members of the society and of ethical norms. 2. It is important to admit and to respect the new moral or ethical norms adopted by the society. 3. It is important to prevent that ethical norms be compromised to achieve the corporate goals. 4. It is important that a good corporate behaviour be defined as that behaviour which does what it is moral or ethical. 5. It is important to admit that corporate integrity and ethical behaviour are even beyond laws.

Source: Carroll A. The Pyramid of CSR in „Corporate Social Responsibility. Readings and cases in a global context” (eds.) (2008), Rutledge, Taylor & Francis Group, London, p.65.

The importance of these goals for the society can be seen from the presence of an interest to identify them, to measure and report the corporate performance towards them. The best-known and accepted corporate performance measure is the **performance indicator** (KLD Research Analytics). The KLD indicator covers the corporate performance regarding environmental and governmental issues. Furthermore, the indicator also includes measures for controversial commercial issues. The environmental issues include the climate change, products and services, operations and management; the social issues include the community, diversity, relations between employees, human rights and the product; the governing issues include reporting and structure; and finally, the controversial commercial issues include the ways of entertainment for adults, alcohol, fire guns, gambling, military and nuclear power, cigarettes.

3. PHILANTHROPIC RESPONSIBILITIES

The philanthropic responsibilities are the voluntary responsibilities of the enterprise. They reflect the current expectations of the public towards the enterprise.

These volunteering activities are animated only by the desire of the enterprise to involve itself in community activities which are not imposed or requested by law and which generally are not to be expected from an enterprise, in an ethical way.

The public expects that an enterprise should involve in philanthropic actions and thus this category became a part of the social agreement between the enterprise and the society. Such activities can include donations of goods and services, volunteering activity, the involvement of the enterprise or of its employees in the community or of the stakeholders. Philanthropy includes those corporate actions which answer to the society's expectations according to which the enterprises are good corporate citizens. This includes the efficient commitment in actions or programmes of promoting the welfare or the human good will (Table 2).

The distinctive characteristic between the ethical and the philanthropic responsibility is that the expectations for the latter one are not regarded ethically or

morally. Communities want that the companies contribute with money, facilities and time of their employees to humanitarian activities, but they do not consider those companies as non-ethical if they do not offer the above mentioned to the required level. That is why philanthropy is the voluntary part of an enterprise, even if there are always some expectations from the society in this regard.

Table 2. Philanthropic responsibility components

Philanthropic (responsibility) components
1. It is important to act according to philanthropic and charitable society expectations.
2. It is important to participate in fine arts.
3. It is important that managers and employees participate voluntarily to charitable activities in the local community.
4. It is important to participate to the activities of public or private education institutions.
5. It is important to participate voluntarily to projects improving the quality of community life.

Source: Carroll A. The Pyramid of CSR in „Corporate Social Responsibility. Readings and cases in a global context” (eds.) (2008), Routledge, Taylor & Francis Group, London, p.65.

One reason to make the distinction between the philanthropic responsibility and the ethical one is that some companies feel that they are socially responsible if they are good community citizens, too. This distinction is the most important idea according to which CSR includes the philanthropic contributions, but it is not limited to them. As a matter of fact, one could discuss about the fact that philanthropy is very much desired and cherished, but in fact it is less important than the other three categories of corporate responsibility. A suggestive way of representing graphically the four parts of the definition is the four-component pyramid. The pyramid shows that the whole responsibility of the company is made up of distinct elements forming together a whole, without excluding one another.

Archie Carroll presents the four components of CSR (Carroll, 2008), starting with the economic performances which are the basis of the others. At the same time, the enterprise is expected to obey the law, as the law represents the code of the society regarding the acceptable behaviour or, if any, unacceptable.

Although the components were treated as separate concepts in order to be well explained, they do not exclude one another and do not juxtapose over the economic responsibilities of an enterprise. At the same time, treating the components separately helps the manager notice that the different types of obligations are tightly and dynamically linked. The most powerful connections are of course between the economic and the legal ones, the economic and ethical ones, ethical and philanthropic ones. The traditional supporters could interpret this as a conflict between the company's interest for profit and the company's concern towards society.

The CSR perspective is that the stakeholders recognize these tight relations as organizational realities and focus their attention to the pyramid seen as a whole and to the way in which the company can commit in making decisions, actions and programmes satisfying simultaneously all its components. The Global Reporting

Initiative (GRI) offers an alternative assessment framework of social performance. Besides the economic and environmental indicators, the *Sustainability Reporting Guideline* (Global Reporting Initiative 2006) identifies four categories of social performance indicators: labour and decent labour practices, human rights, responsibility of the society and of the product. Both the KLD index and the GRI sustainability reporting guideline indicate the presence of the society concerns and of the stakeholders' regarding corporate performance related to the social-economic and environment purposes.

As an answer to the rising concerns of the society and of the stakeholders, many companies adopt initiatives and programmes oriented toward the ethical responsibilities of the commercial activity. For instance, Antalis paper the British producer seeks to reduce the negative impact of its operations on the natural environment by adopting a "green" (Printing World, 2005) philosophy. Antalis became "the first paper trader in Great Britain" certified both by the Council of Forest Administration and by the *Programme for the Endorsement of Forest Certification (PEFC)*. Furthermore, Antalis supports the suppliers whose operations meet the environmental standards established by international organizations whose purpose is to improve the environmental performance of the commercial activity.

Another example of a programme oriented to the fulfilment of the ethical responsibility of the commercial activity is *Starbucks* participation on the *fair-trade* coffee market (fair commerce). The coffee is labelled *Fairtrade* when it is certified by *TransFair USA* (Starbucks, 2009), which is an American subsidiary of *Fairtrade Labelling organization (FLO)*. "Within the FLO policies, farmers are offered credit and are ensured a minimum of USD1.26 per ½ kg". *Starbucks* announced that it would "double the purchase of *Fairtrade* labelled coffee to 40 billion of pounds in 2009". The *Starbucks* participation to the *Fairtrade* system dates from April 2000 when they first signed an agreement with *TransFair USA* to sell *Fairtrade* certified coffee in more than 2000 shops starting with the autumn of 2009.

The *Starbucks programme*, similar to the green philosophy of Antalis, is voluntary and its purpose is fulfilling an ethical responsibility of the commercial activity. *Starbucks* is an organisation acting to reduce poverty and promoting the international cooperation. In July 2002, *Starbucks* announce a pilot project in collaboration with a big *Fairtrade* cooperative in Oaxaca, Mexico. The purpose of this project is to increase the existing quantity of high quality coffee, *Fairtrade*TM certified coffee, and the chance that the 16,000 participating growers earn premium prices for their crops. Since April 2007, *Starbucks* has been present in Romania, too.

The positive relation of the responsible companies with their clients urges them to grant more energy and resources for responsible programmes. The corporate responsibility initiatives have also a positive impact *in attracting investors*. Corporate philanthropy can appear *when it is justified and relies on an economic reason*. Porter and Kramer (Porter & Kramer, 2002, p. 59) offer some premises for such an argument. The authors claim that a commercial activity can gain a competitive advantage through philanthropic activities, too, when these activities are oriented towards causes where there is a "convergence of interests" between the economic earnings and the social benefits.

The companies use philanthropy to increase their competitive advantage through combinations of (external) markets and (internal) orientations of competences. Through market orientation, the companies design their philanthropic activities to match the external demands and to meet the requests of the stakeholders. Therefore, the companies improve their competitive advantage through an “improved marketing, through selling abilities, a greater attractiveness as an employer or better relations with governmental and non-governmental organizations.

Deutsche Lufthansa AG, for example, enhances its relations with the communities in which it works by operating a programme of involvement in the community. Through competence orientation, companies can align their philanthropic activities with their key abilities and competences. By doing this, they avoid being distracted from their basic commercial activities, they enhance the efficiency of their charitable activities and ensure the creation of unique values for beneficiaries (Bruch, 2005).

Strategic philanthropy, defined as “the process by which the contributions are meant to directly serve the interests of commercial activities, at the same time serving the beneficiary organisations”, helps the companies gain a competitive advantage and, in exchange, enhances the main activity. In this case, the corporate philanthropy is used as a means of promoting the company’s interests.

The corporate social responsibility initiatives increase the competitive advantage of a company and come to influence the decisions of the company shareholders in its favour. The company develops a competitive advantage by involving those initiatives which meet the requests demanded by the stakeholders.

In other words, one or more stakeholders *would prefer* the company to its competitors, more precisely due to the company involvement in such responsible initiatives.

4. CONCLUSIONS

The perceptions of a company concern for the society shows the fact that the company can develop mutual relations suggesting that the company can operate and at the same time meet the expectations of the different groups of stakeholders. Reputation and legitimacy make the company operate efficiently on the market. Responsible activities increase the ability of a company to attract clients. Many consumers are influenced in their purchasing decisions by the reputation of such company. Even some employees express their preference to work for companies which are economically responsible.

The examples presented above show how companies can emphasize the fact that pursuing financial earnings are not in contradiction with the community. Moreover, companies can show that both purposes can be pursued at the same time. As a consequence, companies succeed in transmitting that pursuing financial earnings represents a legitimate purpose which is not fulfilled on the expenses of social care.

REFERENCES:

- [1]. **Bruch, H.; Walter, F.** (2005) *The keys to rethinking corporate philanthropy*, MIT Sloan Management Review, p.50
- [2]. **Carroll, A.B.** (1979) *A three dimensional conceptual model of Corporate Social Performance*, Academy of Management Review, 4, pp. 497-505
- [3]. **Grigore, G.** (2008) *The benefits of socially responsible practices*, Annals of the University of Petroșani - Economics, 8(1), 2008, pp. 243-246
- [4]. **Porter, M.E.; Kramer, M.R.** (2002) *The competitive advantage of corporate philanthropy*, Harvard Business Review, 80
- [5]. **Porter, M.E.; Kramer, M.R.** (2006) *Strategy & society: the link between competitive advantage and corporate social responsibility*, Harvard Business Review, 84, pp. 78-92
- [6]. **Prahalad, H.A.** (2002) *Serving the World's Poor, Profitably*, Harvard Business Review, pp.1-14, Cambridge Massachusetts
- [9]. **KLD Research and Analytics, Inc. Socrates ratings indicators** <http://www.kld.com/research/socrates/indicators>, (accessed on December 15, 2009).
- [7]. **Starbucks** (2009) *Transfair USA and Fairtrade labeling organizations*, <http://www.starbucks.com/aboutus> (accessed on 10.01.2010)

THE ECONOMIC JUSTIFICATION OF THE RESPONSIBLE BEHAVIOUR OF COMPANIES

**GEORGETA GRIGORE, CORINA GRIGORE,
GHEORGHE GRIGORE ***

ABSTRACT: *Within the contemporary economy, we are witnessing the amplification of concerns regarding corporate social responsibility, a very complex issue dealing with trans and interdisciplinary approaches, with contemporary dynamics and pressures occurring as a consequence of the complex effects of the world crisis. The current crisis is a complex one with powerful insertions on economic, financial, social, value, moral and psycho-behavioural level. Therefore, the analysis of corporate social responsibility is not only an attractive and modern theme, but also necessary and of high relevance for Romania, being a real challenge in order to understand the economic and social trends at national and international level, especially under the conditions of an amplified world crisis.*

KEY WORDS: *corporate social responsibility; responsible behaviour; reputation; value; intangible assets; performance*

JEL CLASSIFICATION: *M14*

1. CSR CONCEPT AND EVOLVING VIEWPOINTS

The approach of corporate social responsibility (CSR) significantly differs from the point of view of particular practices. For instance, the Anglo-Saxon pattern applied in the USA and in Great Britain, is defined as a philanthropic one, part of the profits obtained being oriented to charity actions. In exchange, the European pattern is focused more on investments, in community where companies act, the enterprises having a central role in creating jobs and welfare in the society, allowing a balanced integration of its economic exigencies.

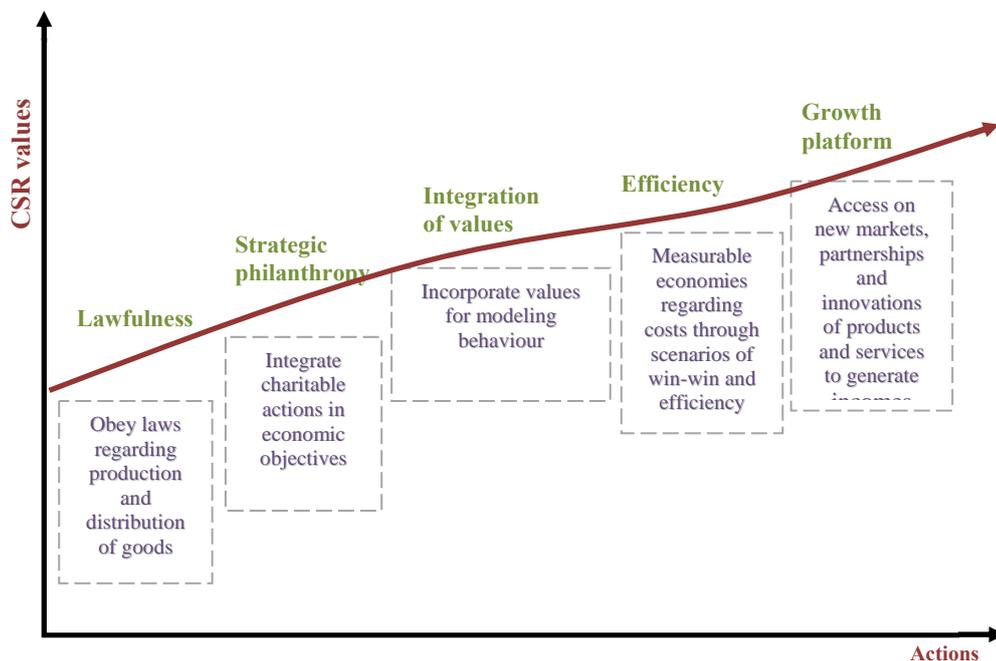
* *Assist. Prof., Ph.D., "Constantin Brâncoveanu" University of Pitesti, Romania,*
georgeta_grig@yahoo.com

Ph.D. Student, Academy of Economic Studies, Bucharest, Romania, corinagrigure@gmail.com
Lecturer, Ph.D., "Constantin Brâncoveanu" University of Pitesti, Romania

In terms of results, the concept is translated into satisfying clients and beneficiaries, pursuing and achieving profit, a competitive position on the market, in full compliance with the requirements of employees and suppliers. From a different perspective, rather an economic point of view, *responsibility*, as a result of summing up the actions, strategies, programmes of companies in order to achieve the result indicators for companies, but also benefits for interested parties, represents the micro-economic dimension of the macro-economic concept of sustainable development.

The increased importance in the domain of responsibility is given by many factors leading to granting an enhanced attention, such as:

- Globalization, with important consequences in international commerce, delocalization of the production of large enterprises, management of human resources, environment protection;
- Consumers and investors who become more and more interested in practices of responsible companies, reacting according to the reaction of the companies towards environmental problems;
- The technological revolution through a very developed and systematized IT system allows an easier access to information concerning their activities;
- An active market adjusting factor; in this regard, responsibility of companies can be a balancing tool and risk diminishing factor in economic activities;
- The integration of CSR actions into the business strategy of the company creates a competitive advantage leading to its sustainable development.



Source: adapted after IBM Institute for Business Value 2008

Figure 1. Value curve of corporate responsibility

As the dimensions of the social responsibility are integrated within the business strategy, the curve moves increasingly from the left to the right, the companies having a sustainable growth by access on new markets, products and services which generate incomes.

Values form an organizational identity and form its behaviour. Organizations rely on two types of values: primary and secondary. The primary ones are included in the organizational culture and form all the actions of such entity. The secondary values are those incorporating the social responsibility programmes.

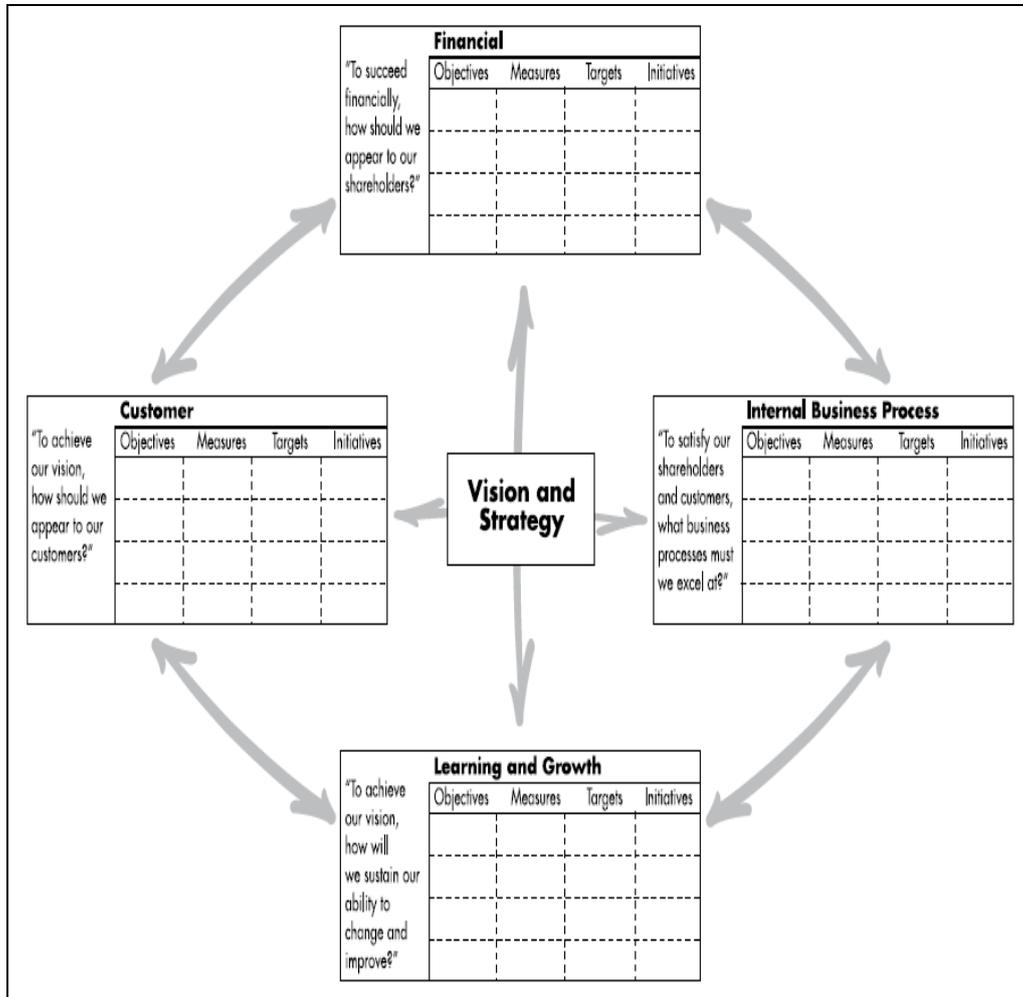
Representing the tactical communication of organisational values, organisations often face a series of conflicts between the declared values and their business ethics, determined by the shareholders and investors' needs. Some companies use the programmes to show their employees and clients that they care, but only shallowly. We mention the example of the controversial Enron company that had a set of values named RICE (respect, integrity, communication, excellence) but the subsequent events showed they had nothing to do with the business strategy or with actions of the company.

Economic justification of responsible practices comes from economic reasons. Perceived superficially as having integrally social dimensions, the concept of CSR, by its practices, *is developed in the economic field in a particular way.* According to the economic context, it is about the size of the companies, their localization (urban/rural environment), type of products, suppliers, managers and reputation of the sector of activity.

The economic justification of the CSR is built on the financial and operational indicators which measure the performance of the enterprise. Kaplan (2007) establishes a set of indicators to measure the performance of the enterprise known as the balanced scorecard. Its structure includes objectives, indicators to be measured, performance targets, indicators performance in time and clear actions aimed at achieving the targets set. This scorecard may be analysed from four perspectives: financial, internal business process, customers and learning and growth (Figure 2).

From the analysis of the balanced scorecard one can notice that the actions needed are in line with the economic, legal, ethical dimensions from Carroll's model on social responsibility. The questions which matter for the next strategies on performance growth are known in the economic field as being specific to the objectives of competitiveness. The performance objectives may intersect with the objectives of competitiveness of social responsibility.

The involvement of the interested parties is a key-element in the ability of creating the profit of such company and the welfare of the community. At the level of concept, it cannot be applied and understood outside an ingenious strategic approach without which the companies could not estimate or solve the problems related to the interactions with the economic objectives, and by these interactions to gain success and competitive advantage with their projects.



Source: Kaplan R., Norton D. (2007) *Using the Balanced Scorecard as a Strategic Management System*, Business Harvard Review, p.4.

Figure 2. Balanced scorecard for measuring performance

2. DIMENSIONS OF RESPONSIBILITY

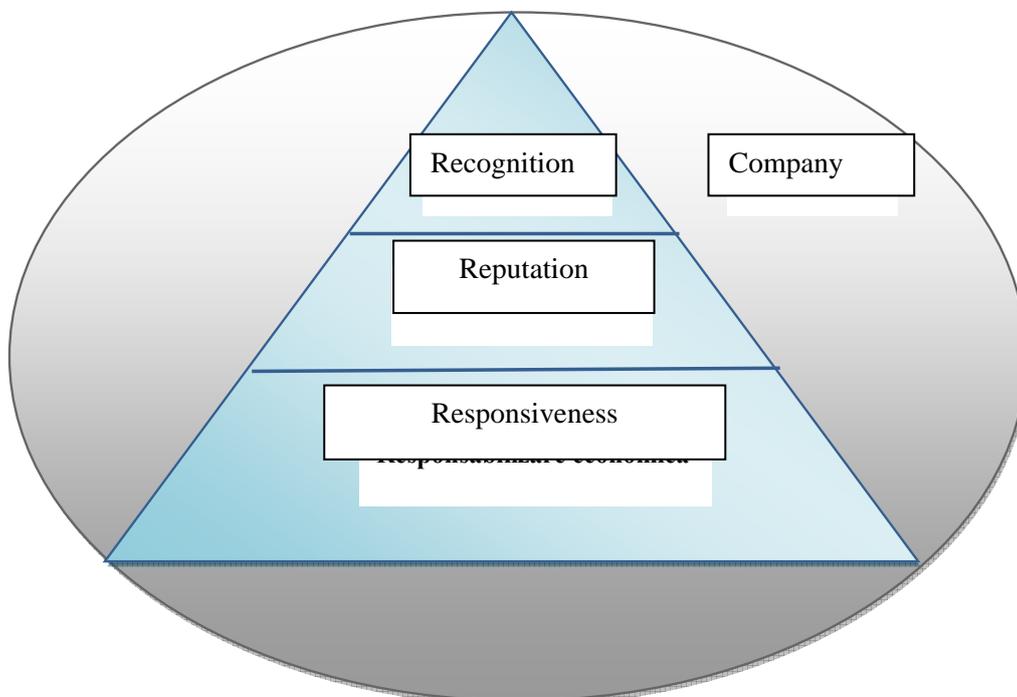
An efficient programme including actions specific to the dimensions of corporate responsibility should lead to benefits that can multiply their importance and especially their knowledge. The power of this concept turns more and more into a business tool and it is given by three dimensions that can be grouped in the three "R" of responsibility. In the author's opinion, the three "R" are: (economic) responsiveness, reputation and recognition (Figure no.2 below).

The economic responsiveness of the company consists in distinct actions aiming at economic interests of the shareholders, creation of cost-benefit balance,

marketing the goods, the consumers' interests, all these assumed by companies and competitors at macro-economic level.

Reputation becomes more and more important. It consists in a positive image towards clients, investors, skilled personnel fairly paid, based on competence, organisational culture, entrepreneurial spirit, opening to risks. In an era of information, globally interconnected, one can easily find out information about the behaviour of any company. Thus, reputation becomes an *intangible asset creating added value* to such company.

Intangible assets are essential to obtain a competitive advantage and represents a weapon against competition, because it is hard to transfer, substitute and imitate, that is why reputation plays an important part in establishing the differences in performance among organizations. The market of organisational values is heading more and more to the non-transferrable intangible assets.



Source: based on own research

Figure 3. The three „R”

Recognition refers to those benefits which come back to the company as: *performance, profitability, eco-efficiency, high commitment on behalf of the employees, lower vulnerability of the business*. The recognition of the company is emphasized by the fact that a responsible behaviour is a *balancing tool* and a *risk diminishing factor* brought by globalization in the economic environment.

3. COMPETITIVENESS - A STRATEGIC TARGET FOR SMES

The term of competitive advantage is best understood within the context of a strategy of differentiation. The motivations regarding the competitive advantage state that the companies can improve their spirit of competition by involving themselves in some CSR activities. The interested parties' requests are seen as opportunities, rather than constraints. The companies manage their resources strategically in order to fulfil these requests and exploit the associated opportunities for the company's benefit. The competitive advantage is one of the main justifications for responsible activities.

The companies can develop their own competitive advantage through CSR strategies. If the responsibility strategy of a company is conceived accurately and cautiously, it shall be unique. This uniqueness can serve as basis for differentiating the company towards its competitors and, as a consequence, as a competitive advantage.

T. Smith (Smith, 2005) said that an explanation regarding the EEO policies (European Employment Observatory) could have additional benefits concerning cost and risk reduction. Such policies would offer the company a competitive advantage, because the companies without global policies could be in a competitive disadvantage regarding recruiting and keeping the employees from the biggest talent nursery. Smith says responsibly that many institutional investors avoid the companies or industries that violate their missions of organization, values or principles. Also, they seek companies having a good reputation regarding the relations with their employees, environmental standards, involvement in community and corporate management (Smith, 2005).

The corporate responsibility initiatives can also contribute to strengthening the competitive advantage of a company by enhancing the relationship with its clients. For example, such initiatives enhance the brand loyalty.

The positive relation of responsible companies with their clients urges them to grant more energy and resources for responsible programmes. The corporate responsibility initiatives also have a positive impact in attracting investors. Corporate philanthropy can occur when it is justified and it relies on an economic reason. Porter and Kramer offer a premise for such an argument (Porter & Kramer, 2002).

One can state that a commercial activity can gain a competitive advantage by philanthropic activities, too, when such activities are oriented towards causes where there is a "convergence of interests" between the economic and the social benefits. The concept of competitive advantage, with a dynamic and macroeconomic vision, emphasizes the fact that the evolution of success and the specialization of economies depend first on the degree of competitiveness of the companies on the national and international market, on the evolution and the profile of companies, on assimilating the technical progress, and less on the existence of natural resources.

Competitiveness means productivity, understood as added value, achieved based on a used production factor unit. It has a dynamic character (Suciu & Iordache, 2008), and novelties play the part of accelerators of company activities, companies which should give up their inertia and stimulate innovation. According to the European Union, competitiveness means, cumulatively, productivity and comparative advantage, at international level. Productivity includes the intrinsic elements of comparative

advantage, but also includes a larger range of factors. And “competitiveness is determined by the increase of productivity”.

Competitiveness is created at macroeconomic level. Sustainable productivity is created by the companies. As a consequence, the quality of the business environment is a major factor. There are more factors determining the level of productivity. Among the most important, there are those referring to stimulating investments, level of competition and ability to innovate. The new concept is based on four pillars:

- a) company;
- b) competition between companies;
- c) favorable economic environment;
- d) relevant active policies oriented towards companies and government.

The competitive advantages in the economic development come from a system of conditions whose quantity and quality-structural dimensions and result from the level of competitiveness.

4. CONCLUSIONS

Corporate social responsibility is no longer of interest only for large corporations. The small and medium enterprises can adopt and adjust corporate responsibility practices from the large companies and thus they can take part in creating social benefits, although their impact can be more reduced than in case of large organisations. In doing the research, I started from the fact that responsibility practices and activities have positive effects on the company as an entity and on the interested parties.

Competitiveness is manifested at the company level and only by means of the companies it is achieved at the level of some sectors of economy. The companies are those creating and supporting the competitive advantage and only through them some objectives established at national level can be reached.

5. ACKNOWLEDGEMENT

This paper is part of the POSDRU/88/1.5/S/55287DoEsEc project co-financed by the European Social Fund through the Sectoral Operational Programme for Human Resources Development 2007-2013 and coordinated by the Academy of Economic Studies of Bucharest in partnership with the West University of Timisoara.

REFERENCES:

- [1]. **Carroll, A.B.** (1979) *A three dimensional conceptual model of Corporate Social Performance*, *Academy of Management Review*, 4, pp. 497-505
- [2]. **Carroll, A.B.** (1991) *The pyramid of corporate social responsibility: toward the moral management of stakeholders*, *Business Horizons*, July-August, p.41
- [3]. **Iain, A.D.; Crane, A.** (2010) *Corporate social responsibility in small-and medium-size enterprises: investigating employee engagement in fair trade companies*, *Business Ethics: A European Review* Volume 19, pp. 127-129

- [4]. **Moore, G.; Gibbon, J.; Slack, R.** (2006) *The mainstreaming of Fair Trade: a macromarketing perspective*, Journal of Strategic Marketing, 14:4, pp. 329-352
- [5]. **Morsing, M.; Perrini, F.** (2009) *CSR in SMEs: Do SMEs Matter for the CSR Agenda?*, Business Ethics: A European Review, Vol. 18, Issue 1, pg. 1-6. www.eu-employment-observatory.net (accessed on 10.01.2010)
- [6]. **Porter, M.E.; Kramer, M.R.** (2002), *The competitive advantage of corporate philanthropy*, Harvard Business Review, 80, p. 59
- [7]. **Smith, T.** (2005) *Institutional and social investors find common ground*, Journal of Investing, 1, pg.60
- [8]. **Suciu, C.M.; Iordache Platis, M.** (2008) *Role of the Cooperation and Competitivity for increasing competitive advantage*, 4, International Conference of ASECU, Development Cooperation and Competitiveness
- [9]. **Renard, M.C.** (2003) *Fair Trade: quality, market and conventions*, Journal of Rural Studies, 19:1, pp. 87-96
- [10]. **European Employment Observatory**, www.eu-employment-observatory.net (accessed on 10.03.2010)

QUALITY OF CONSTRUCTION ACTIVITY

LOREDANA VALENTINA HEDRE *

ABSTRACT: *The problem of the quality works of building has a different importance because, as opposed to another activities of material productions here are not admitted bear of the quality in respect resistances, stability, durability, safeties in exploitation. The responsibility concerning assurance quality is not summed up just to the level of builders or beneficiaries, they became a national problem and last recently, European and even global issues. Implications are considered factors contributing to the establishment and maintenance of quality construction objects and their obligations through legislation. The paper addresses the particular quality control organization and has, in short, needed to implement „Total quality management” in construction. After receiving detailed presentation of construction work analyzes quality costs and quality relationship - the overall cost. The paper concludes with details of quality control organization in the construction business.*

KEY WORD: *constraction; quality; quality management; cost*

JEL CLASSIFICATION: *M19*

1. QUALITY IN CONSTRUCTIONS. QUALITY IN DOMESTIC AND INTERNATIONAL LAW

Construction activity is recognized as one of the oldest human concerns and materializes and built environments which run the entire system of human pursuits and activities (productive, social, cultural, etc.). So the built environment affects all material and spiritual activities, which led, since antiquity, to guarantee the production quality of construction requiring. Thus, the code of Hammurabi, 1700 before Christ, manufacturer was responsible for the quality and strength of his work specifying: if the house collapses (construction), killing residents and master builder will be killed. Legislation and construction quality assurance organization in our country occurs first in „Statement about the work done by Public Works Department” published in Iasi in 1856 through which was created “Police on private building” which require that: „all construction workers should not be permitted to work until do not acquire awareness

* Ph.D. Student., Sinergy Est Timișoara, Romania, hedreloredana@yahoo.com

certificate”, „in the future all buildings should no longer build than brick wide, and those made with brick on edge to be transformed” etc. Construction quality must be addressed complex scientific because nonquality implications are much higher than for most other products.

Construction, as products of human activity has the following features: consumes a large capital, are subject to many random factors, unpredictable, following living high life; must meet the needs of two, three generations making it difficult to standardize and extends the period of accumulation of experience needed improvement products; with all technological developments works with nature to maintain quality artisan is given the qualifications and skill contractor; is difficult to predict an optimal ratio between the increase in implementation cost for quality improvements and reducing the cost of operating this way; not admit fault or scrap (especially related to stability, strength, durability and safety in operation). Construction quality is not just a matter of manufacturer, it is a national problem and, lately, European or even world. In this respect European Economic Community (EEC) mandated the European Committee for Standardization to set standards by which, between Member States, to recognize each other bodies and laboratories to confirm quality.

Romanian Institute for Standardization has joined the European Committee for Standardization and the International Network for Terminology, which led to the adoption of the International Organization for Standardization (ISO) including them in the classification of Romanian standards. To obtain an appropriate quality construction binding realization and maintaining, throughout the duration of the construction, the following requirements: strength and stability, operational safety, fire safety, hygiene, human health and environmental restoration, thermal insulation, waterproof and saving, protection against noise. These obligations incumbent upon stakeholders in the design, implementation and operation of buildings, and their postutilization namely: investors, researchers, designers, project verifiers, manufacturers and suppliers of construction products, the contractor, responsible for the technical implementation, owners, users, technical experts and members of public authority.

1.1. Construction Quality system

Construction quality system consists of:

1. Construction Technical Regulations are set by regulations and proceedings which have as their object, design, calculation, composition, construction and building operation.
2. Quality products used in construction of buildings is certified by the manufacturer. Do not use products without certification.
3. Technical approvals for new products and processes determining fitness for use, conditions of production, transportation, storage, commissioning and maintenance of their work.
4. Verification projects, works and construction projects and expertise. Projects required by specialists check project verifiers accredited (other than those who were drafted). Implementation is verified by masters of specialized investors and

technical expertise and construction projects shall be authorized only by technical experts.

5. Construction Management and Quality Assurance is an obligation incumbent all the factors involved in the design, implementation and operation of buildings and materializes in a system specific to each factor.
6. Licensing and accreditation of laboratories for analysis and test construction is required by law.
7. Construction activity aims to ensure metrology, calibration, verifying and maintaining the working order of the instruments and controls needed.
8. The reception building is intended as documentation certifying their achievement of performance and construction in the technical data falling construction completion and operation. It is made by careful investor and owner surrenders in charge to complete the day.
9. Behaviour in operation and assistance while in the technical fall. Interventions (restoration, enhancement, transformation, expansion, repair) are only based on a project approved by the building's original designer or a technical expert care.
10. Postutilization construction refers to the act of decommissioning, removal and demolition of building , reconditioning and reuse of recoverable items and products and waste recycling to ensure environmental protection law.
11. State control of construction quality is exercised by „State Construction Inspection, Public Works, Urbanism and Planning”, seeking uniform application of legal provisions on construction quality throughout the country. Construction of quality components only construction management and quality assurance falls entirely in the manufacturer's care.

According to the rules on construction management and quality assurance participating units (research, design, implementation, use and construction postutilizare) are required to: develop and implement management systems and quality assurance in the premises, compartments establish quality control and technical quality, prepare and qualify personnel. Construction Quality Law stipulates the following duties and responsibilities for participants to the objectives of building:

a. investor

- sets the quality to be achieved in design and execution;
- obtain approvals and law;
- masters of the implementation by specialty or consultants;
- resolve nonconformities, defects in service, design deficiencies;
- ensure completion of the work and reception at the end of warranty;
- aims to compile a technical construction and owner surrenders;
- proposed construction expertise to carry out interventions.

b. Designer:

- states, by project, category of constructions;
- ensure the projects and details of implementation, the quality of construction;
- projects have specialists certified auditors, established by the investor and resolves conflicts raised;
- prepare specifications, technical instructions for execution, operation, maintenance, repair and monitoring performance over time;

- determine stages of completion, participating in their quality control;
 - eliminates quality defects in design;
 - participate in the technical preparation of construction and acceptance of work performed.
- c. Contractor:
- notify the investor of the project inconsistencies;
 - begin construction only for construction projects audited and approved;
 - the system achieves its quality management and quality assurance in construction;
 - convene the stakeholders to verify the physical state set;
 - closure of the designer resolved based solutions;
 - notify the Construction State Inspectorate on technical accidents during construction;
 - fixes its own expense, defects of execution;
 - restore the land used to organize the site to its original state;
 - establishes responsibilities for quality failure.
- d. Verifier projects and technical experts:
- same designer responsible projects supported;
 - responsible for database solutions.
- e. Building owners:
- made timely maintenance and repairs according to the technical manual;
 - make and keep, to date, the technical construction;
 - implement changes to the building only on verified and approved projects;
 - postutilization out work for stage.
- f. Administrators and the users:
- construction using operating instructions (the technical);
 - maintenance and repair works are under contract;
 - follow the behavior in service;
 - notify the State Construction Inspection on technical accidents recorded.

Participants in the creation and use of buildings are 10 years responsible for hidden defects and duration of existence for structural defects (design or execution).

1.2. Quality control organization

Quality assurance work is made possible by: raising the skill levels of workers, observance of technological discipline, exigency in strengthening enforcement, application forms technical quality control operations in all phases of implementation, namely.

Pre-implementation phase of construction are: examining and verifying the technical and economic documentation, quality control and prefabricated construction materials, quality control equipment leased, verification capability subcontractors. To increase the quality of construction should proceed in the directions: improving the quality of design documents, improve the quality of materials, supplies and prefabricated, introduction of new materials (plastics, steel, aluminum, glass etc.), improvement and bringing constructive solutions to technical progress, increase

technical and degree of specialization of construction equipment and vehicles, improving methods of organization, higher motivation of staff.

A new theory on the construction quality is Total Quality Management (TQM). Total quality management system covering all aspects of the company and appoint quality as a strategic element. TQM strategy is focused on integrated efforts of all company levels to increase customer satisfaction through the practical implementation of continuous improvement. TQM is necessary because construction known for poor quality construction, there is a lack of concern for the deadlines, projected costs not met by the client, record low performance in the company. With the TQM system each other is client. Private construction is that the owner is only nonexpert and yet it is he who should make the most important. The owner has no experience because he leads a project once or, at best, at intervals of time. This is the main cause that lead to conflict among participants (related to materials, machinery, construction solutions, relationships between people, money, etc.). TQM peculiarities are the irrepeatability construction projects discussed what makes the physical and human resources employed in project be made available to the conclusion. Quality in construction it is primarily an issue of social responsibility. Security and comfort for beneficiaries construction is a moral and contractual obligation for construction companies.

1.3. Quality costs. Quality - the overall cost

Although factors affecting quality are readily identifiable factors affecting the cost of quality are more difficult to identify. International standards of data quality costs are: the market study cost quality requirements, cost of research related to quality improvement, design costs related to quality assurance requirements, cost of quality assurance resources to implementation, cost of organizing the site in relation to achieving quality assurance, operating costs related to quality assurance, cost of quality system audits, etc. object construction, cost of training in quality, nonquality prevention cost, eliminating the cost of quality nonconformities, cost of quality assessment. The higher the quality of construction the higher the cost of execution works but decreases proportionally, the high quality, cost of construction operation. Duration of use of building objects is very large and therefore, additional cost recovery implementation is easy.

2. ORGANISATION OF QUALITY CONTROL AT CONSTRUCTION FIRM

In most construction companies organization and implementation quality control work is provided by: general manager, responsible for implementing and evaluating the quality system; technical manager, responsible for compartment activity control, quality, reception, for qualification of staff, quality assurance program implementation, approval of job descriptions for heads of subordinate departments, commercial manager, responsible for purchasing departments and storage and monitor the quality provided in the project, department head control, quality, reception, which is subordinate to the general manager and has the following responsibilities: designing organizational structure designed to ensure quality functioning developed, sites

responsible for training staff, quality inspection for all phases of implementation, analyze the causes leading to non-compliance and initiates corrective action, stop work order when deviations from the quality requirements; coordinate non-destructive tests, prepare quarterly and annual summary samples and forward them to the State Inspectorate construction, public works, urban and regional planning; chief supervisor responsible for: conditions necessary for the commencement and conduct of work, quality of materials put into opera, identifying nonconformities and implementing corrective actions; group leader, responsible for quality of work performed and shall: hold jobs; control the quality of work performed by teams, seeks compliance projects; team leader, responsible for compliance with the requirements of project and technology files. It is responsible for the quality of subordinate workers; workers responsible for quality of work performed.

After running way beyond control body position towards the company can control: Internal control, which aims to certify the quality of its production and is achieved by: internal control, comprising; self-control; hierarchical control; external review, conducted by sampling at all stages of execution by the personnel department of quality control, receptions, in order to validate the operation of internal control; external control, made by the beneficiary or his representative and internal control aims to validate the contractor; state control, which is done by State Construction Inspection, Public Works, Urbanism and Planning.

REFERENCES:

- [1]. Alexandru, J. (1998) *Service Management*, West Publishing House, Timisoara
- [2]. Mercioiu, V. (1998) *Commercial Management*, Economic Publishing House, Bucharest
- [3]. Morse, W.J.; Davis, J.R.; Hartgraves, A.L. (1991) *Management Accounting*, Third Edition, by Addison-Wesly Publishing Company, Inc.
- [4]. Nicolescu, O.; Verboncu, I. (1997) *Management*, Economic Publishing House, Bucharest,
- [5]. Nicolescu, O. (2001) *Small and Medium Enterprises Management*, Economic Publishing House, Bucharest
- [6]. Niculita, L. (2005) *Research Project*, Conspress, Bucharest
- [7]. Peter, J.S. (1999) *Romanian accounting management*, publishing Intelcredo Deva
- [8]. Radu, V. (1997) *Production of construction management*, Sylvi, Bucharest
- [9]. Radu, V.; Curteanu, D. (2000) *Construction Project Management*, Economic Publishing House, Bucharest
- [10]. Gheorghe, S.; Vasile, A. (1994) *Management Information Systems*, Cantemir Christian University, Bucharest
- [11]. Thomas, M.; Margarit, N. (2002) *Construction Management. Planning and organization of the works of construction*, Economic Publishing House, Bucharest

EMERGING RATIONALITY AND THE SUBJECT OF LIBERALISM

ION HIRGHIDUȘ, VALENTIN FULGER *

ABSTRACT: *The problem of leadership (a management phenomenon) has attracted a lot of interest thought time, from theoreticians and scholars to practitioners skilled in wide range of science subjects. (sociology, political science, philosophy, organizational management etc.) The leader is generally defined as an individual of a person which has been given the task of coordinating and directing the group's activities, or who, in the absence of an elected leader, has the greatest responsibility in achieving these group functions. The leadership represents nothing more than manner or way of achieving those responsibilities that were taken in charge by the leader. Leadership in practice results in successfully carrying out a task or designing a behavior that will allow the group to remain closely bounded.*

KEY WORDS: *leader; organization; economical organization; liberalism; communitarianism; rationality; emerging rationality; human behaviour*

JEL CLASSIFICATION: *Z10*

1. WHAT IS EMERGING RATIONALITY?

The liberalism has appeared as a wreathed of rationality, being a late version of the latter. As all dynamic forms stabilize and eventually become more conservative, in virtue of a way of thinking based on value, liberalism has surpassed its revolutionary phase to become conservatory regarding its own values. The self orientation that asks in a determined manner to sacrifice a part of society, leads to perverted manifestations. Such an example is emerging rationality.

In psychology, the emerging theory states that emotional behavior is an instant act, a special mobilization of energy in order to cope with an unexpected situation or a danger that seems imminent. Emerging rationality represents an "exit", but beyond any known limits of modern rationality. Given this reason, it must always be compared to a

* Lecturer, Ph.D., University of Petroșani, Romania, ihirghidus@yahoo.com
Lecturer, Ph.D., University of Petroșani, Romania, vifulger@yahoo.com

Weber like vision on society which can be considered “classical”. We know that for Max Weber the paradigm of rationality is developed on the principles of capitalism, on the liberal content that it comprises. Rationality is a historical state of being and it refers to the use of formal control procedures in order to acquire a lawful profit that would ensure its purpose of being a human being (Weber, 1993, p. 44).

We may ask ourselves the question if for Weber the human behavior is completely rational. Just as it results from the analysis in his work **The protestant ethic and the spirit of capitalism**, the non-rational elements aren't denied as they are to be found in the analysis of social action, where this is divided in four directions: rational-instrumental; rational-value; emotional; traditional (Weber, 1978, pp. 24-26). Rationality is an ideal, the mere result of an abstract thought. Starting from here, we can infer that the existence of rational man may be assessed only if we ignore two categories in the characteristics of human behavior: omission of counting in the religious, sentimental, affective, esthetic etc. elements in human decisions; the omission of actual processes of even the rational decision (Hoffman, 2004, p. 85).

Max Weber's point of view over rationality sets forward the fact that it is not linear, and, as a follow up, we must take account of the fundamental changes that have taken place in theoretical approaches, changes that mark the end of modernity and reach of maturity for capitalism. But this very change may raise some question marks as liberalism and democratic rules may be found in two major situation: a. when liberalism restrains very much the state activities and gives a certain advantage to the elite, which may lead to a conflict between these elites and the large masses; b. when liberalism is mixed up by chance with the rules of democracy it may transform those rules in a personal advantage for certain individuals and structures. The democratic mechanism is broken if there is an obvious political trespass in the economic, on the grounds of certain group interests and not on the grounds of efficiency and objective laws on development.

The answer to the question: **what is emerging rationality?** consists in the very description of the limit situations that may result if the democratic rules are used for antidemocratic interests. Emerging rationality in an organization, in an open society, may be the copy of the existing society at a certain point in time or it may insure its autonomy by setting up own rules, framed in virtue of democratic rights that are interpreted in the spirit of individualism of certain small groups or subjects.

2. COMMUNITARIANISM VERSUS LIBERALISM AND IMPLICITLY CRITICISM ON EMERGING RATIONALITY

The foundations of criticism against emerging rationality may be considered as being part of liberalism criticism. One of the most consistent forms of criticism regarding this subject is the communitarianism criticism. The research for goods made by an individual, believes MacIntyre is generally performed in a context that is defined by those traditions that are part of an individual's lifestyle, and this is applicable to both goods that have to do with professional practice and the ones for a unique life. Mulhall and Swift have identified five themes over which communitarianism and liberalism have disputes: 1. the general concept of individual; 2. socially-opposed

individual; 3. universality of values; 4. subjectivism of values; 5. state neutrality. In what concerns the first theme of anti-liberal criticism, communitarianism scholars accuse the liberal thinkers that they see man apart from his targets. The second issue of anti-liberal criticism is based upon the idea that the individual and his values are determined by the society in which he is brought up. The dispute regarding universality of values is held over the question if liberal values are universal or specific to the geographical area in which they evolved. The fourth theme of the communitarian criticism has in target the morality of liberal society. This is viewed as subjective, states that the individual is the source of values and an objective hierarchy of the values is impossible to achieve. The last theme in discussion is regarding the extent to which the state is involved in showing its adhesion to certain values and disapproval of others. An example regarding this aspect is the subsidizing of culture and setting up massive taxes for gambling. Communitarianism is an extremely new (but with old roots) political and social doctrine, which has as main concerns the formation and structure of communities, who are seen as public actors (that are inside subdued to the Greater Good) in relation to a communitarianist state that is capable of managing and arbitrating the dynamics of these communities.

The inside of these communities is based on the free association of individuals with view to obtaining the common Good, accepted by all as a main purpose of forming that community. The internal values of the community are respect offered to one another and mutual help among community members, as well as among individuals outside the community.

In the eyes of the state all communities have equal rights and responsibilities, and the sum of all communities represents, abstractly - the historical community, the people, the nation. The communities defend the rights of their members and support their member's requirements in front of the state authorities and thought specific methods they control the state, but they comply to the policies it proposes. Just as Michael Sandel, McIntyre invokes history. The individual will always be the carrier of a tradition and will inherit a variety of debts, values and cultural patterns. He insists upon the fact that the inner self finds its moral identity by and through its membership in a community. Unlike the liberal approach, one of explaining the options, McIntyre accentuates the fact that there always is a context in which the individual cannot choose its membership in one community or the other.

The non-competitiveness of internal goods (virtues) is the center of the McIntyre argumentation. These non-competitive goods are "excellences" that individuals wish to acquire. The notion of "excellence" as a standard is crucial because it doesn't imply an interpersonal competition. To reach its own goal, a democratic community must have an "excellence" standard, in terms of which their members should be able to touch their identity seen as individual self participating into what we can call the community self.

The most appropriate way to reach such "excellence" is the one that is involved in the democratic way of existence of a community. In a democratic community, the individual is more involved in a cooperative activity rather than in a competitive activity. This is the only way to reach its self awareness. (regarding this aspect McIntyre's point of view coincides with M. Sandel's) .We ask the question:

What kind of “excellence” may lead to democratic life? This “excellence” would be citizenship, or in McIntyre’s terms “the moral community of citizens”. M. Sandel states that only if the inner self is primary in relation to its targets, may justice be more important than the good. Getting in contradiction with liberalism, Michael Sandel states that not just that the inner self is anything but priority, it also cannot represent more than the final acts as there is no distinguishing between the “self” and “my results”. WE ourselves are partially built by our “finalities” and we don’t choose, but we discover that we are deeply rooted into parts of the general social context. A policy of common Good, as an expression of these finalities, makes us capable “of knowing the common Good just as we cannot know it ourselves.” M. Sandel has a perspective over “cognitive auto-understanding” through which he criticizes Rawls and his idea of priority of right over good and he develops, starting from here, a community theory. Sandel criticizes against Rawles the idea of self and its finalities that lead us to think of a choice self made that is absolutely necessary. I would like to make here a personal comment (this is important in understanding the criticism made by M. Sandel against Rawles’ theory). The existence of grounds in order to act like described above, which should not be reduced to following the own interest, is the mark of a moral concept that in non consequential, thus **deontological**. A theory of right as an impartiality is deontological. It underlines the primary importance of justice amongst moral and political ideals.

Its central thesis may be expressed by this: whereas it is made up from a wide range of persons, each of them having its own goals, interests and beliefs over what is good, society is best organized when it is governed by principles that do not assume among each other a certain concept of what is right; what justifies above all these principles is not the fact that they maximize social welfare or that they promote the good, but more than this the fact that they fall under the concept of just - o moral category given before good and independent on good.

The fact that the basic structure of society is just or not cannot be determined by referring to its consequences, such as maximizing welfare or promotion of good, but by previous criteria that stated before these consequences, independent among each other. The theories of this second type define justice as impartial in the way that what is just cannot be determined by taking into consideration one person’s opinion or another’s, but rather trough formulating a basis with which most will agree once there will be taken into account all points of view: it is requested that people detach themselves from the position they find themselves into, by chance, and adopt an impartial position instead. Even though the communitarianism critic over liberalism can in itself be criticized, it states something that is essential and warns us about the danger that behind the democratic and liberal rules there often hide irregularities that may harm irrecoverably the functioning of society in general and organizations’.

3. LEADERSHIP IN THE CASE OF EMERGING RATIONALITY AT ORGANIZATIONAL LEVEL

Generally, leadership is a reciprocal process by which an individual has the possibility to influence and motivate other individuals, in order to determine them to

achieve the group's goals. The definition accentuates some of the key characteristics: leadership is a reciprocal relationship, between certain individuals that are either leader (he determines, sets directions and facilitates the group's behavior) and the subordinates (that accept the suggestions given by the leader). As an act of concept, project and control for all sequences of social action, leadership represents the functional aspect of institutional power, meaning it includes all those action-like models that are axiological motivated and validated by activities that are clearly determined (Buzărnescu, 1999).

Mielu Zlate (2004) makes a synthesis of the main conceptual approaches regarding leadership. Among these, the definition given by G.A. Cole is comprehensive, as it refers to leadership as to a group dynamic process through which an individual influences the members of the ensemble to voluntarily participate to carrying out the tasks and group's objectives, in a temporal segment that is determined. Just as like a lot of other definitions, this too is supported by the idea that the process of leadership has a psycho-social characteristic as it includes all elements of leadership - group, influence and scope. Leadership is, a dynamic way of behavior that implies the valuation of some basic dimensions: leader's traits, attitudes, needs, behaviors and other personal characteristics of the subordinates, the nature of the organization, the scope, structure, the assignments and the social, economic and political environment. Ordway Tead defines leadership as the "art of influencing people in order to determine them to participate to the realization of an objective that they end up considering desirable". The Collins English Dictionary (1998) presents us not just one meaning for this term, but several. Among these, the most comprising for the managerial context is "ability to lead".

The difference between management and leadership comes from the influence imposed by a manager or leader. Management is understood only as an top - down direction and it refers strictly to collaborators, and it implies the idea of administration and control. Leadership hasn't got such limits, it is exercised beyond hierarchical responsibilities and targets all kinds of relations: with collaborators, with colleagues, with the hierarchy and with the clients.

The leadership and the management are two distinct action systems, with certain functions and characteristics. The intersection of the two domains of interest may become major premises of success in a business environment which is more and more complex and changing. The existence of a good manager is a guarantee for order and consistency in an organization, elements that themselves condition key-dimensions, such as quality and profitability. Unlike management, leadership has the ability to face the change. The higher importance given to the leader in the past few years is a consequence of competitively growth and fluctuations in the business world. The major changes are more and more necessary in order for an organization to survive and get in competition efficiently in this new environment that is developing. So, there is a directly proportional relation between change and leadership. The diverse functions of management and leadership attract individual characteristics. While the manager copes with complexity, the leader has in target the setting up of directions that imply certain strategies. The management develops the capacity to realize the plans through organizing and to recruit adequate personnel. The leader's activity consists in direction

people, meaning communicating the new direction to the ones that are suspicious and making them understand his vision and become devoted to its materialization. The difference between the management and the leadership evolves from the method of influencing the staff. The management has as a support the functions of planning, organizing, coordinating and control; the leadership may be exercised outside of the hierarchical boundaries and targets all types of relations. Management means choosing the most profitable path for an organization while leadership indicated the path that has the highest chances to become a success. The leader is associated with an imaginative plan that anticipates and has a cognitive aspect, while the manager is associated with the action plan. The leader seeks into the future, the manager instruments the plan; the first is an architect, the latter is the constructor, you cannot have one without the other, none of them is superior in front of the other, and the possibility of them to be found in just one person is scarce. The harmonization of the architect's and constructor's efforts depends only on their intelligence and interest.

The companies that encourage leadership concentrate on creating new opportunities for their youngest employees. In most cases, decentralization was the key to achieving this objective. Decentralization prepares people for key roles in medium or inferior hierarchical structures. Such strategies help in creating an organizational culture in which people accept the leader's position and access it. One of the minor problems with which today's companies are confronted with is linked to the challenges determined by adaptation needs. The changes that appeared in society and technology force certain organization to develop new strategies and learn new ways of action. In most of the times, the most difficult task of the leaders is the mobilizing of people in adapting to new environmental and work conditions. The mobilizing of an organization in the scope of adapting its course to the new business environment is fundamental, it is the leitmotif of leadership in a competitive world. The organizational changes represent an important factor of stress for people. These are constrained to take on new roles, to hire in new relations, to conform to new rules, behaviors and work approaches. As a result of the experience accumulated through studying the activity of managers around the world, there were found six principles of adaptation to work: "the balcony view", identifying the adaptation mechanisms, stress relief, holding on to disciplined attention, repositioning of people in the field and encouraging leaders of all levels.

According to "the balcony view", leaders must be capable of projecting an exhaustive vision over things, just as if they were above everything, in a balcony. It is not recommended that they become main actors in the field of action. Leaders must feel the context of change and even create it; they must be able to induce to the employees a strong feeling of organization history, to underline the good passed moments, and, as well, to insist on the responsibility of people to mould the future. More than that, the leaders must identify the disjunctive values and power values and to watch closely the functional relations or the dysfunctional one to change. In what concerns the adaptation mechanisms' identification, things are very clear: when the organization cannot rapidly learn to adapt to new challenges, there's the risk it may become extinct.

An important aspect is that at the basis of leadership there's always a team spirit, - defined as a state that reflects the people's acceptance to think, behave and act in harmony in order to reach a common goal. The team spirit is built on certain cumulative aspects: a passed experience that has led to building mutual trust - , assuming a common objective, the existence of convergent interests that lead to a powerful motivation (individual and group motivation) and taking decisions in a participative manner. The team spirit is the result of integration of four processes: building trust among the persons that are involved, the setting up of the mission and of certain clear goals, to which the participants contribute and the rolling of participative decisional processes. The Henley Institute of Management and the Henley Management College have made a study on which they established four essential responsibilities of leadership: setting up the values, image and mission of the company, establishing the strategy and structure, supervising management, the extension of responsibilities to the shareholders.

Many of the efforts of transforming organizations through acquisitions, mergers, restructuring, reengineering and strategic work fail because the managers haven't got a pertinent perspective on the change requirements. They make the classic mistake of handling the adaptation challenges as technical issues that can be resolved by management abilities. This way they underestimate the role of leaders. They are, in fact, the only ones that have the adequate means to compute the profits of restructuring, to understand the future tendency and discontinuity, to identify opportunity, to set competencies and name the mechanisms that are inherent to the strategic direction that was chosen.

Certain leadership myths must be surpassed as these often prevent the reassessment of managerial actions. Leadership means power over others, is one myth. People say that a good leader has the ability to manipulate, to control and determine others to listen. The term leader should be held for those that act in the greater interest of the group and in consensus with the group. Some people are born to be leaders is a statement that has lost its credibility. Research has shown that the concept of innate leader is not valid, and that leadership skills are taught by practice. The association of certain variables of the personality and the leader's efficiency has been proved wrong. So a leader is no genetic accident. "A leader is a leader in any circumstance" is a myth which is correlated to the one of the innate leader. This concept under evaluates the power of environmental circumstances in conditioning a leader's efficiency. "A good leader is a loved leader". Still, a known leader mustn't necessarily be the most loved member of the group. Some leaders may be loved by the members of the group, but inspiring affection is not a key characteristic of a leader. There's another representation that states that the groups prefer not to have a leader. Even though in folk culture it's been said that the ones that are led are envious on the leader's authority, research has shown that this is not always true. In some situations the group functions very well even without the leader. Still, when the duties of the group become complex, the need for coordination rises also, and the satisfaction and productivity of the group are higher when it has a leader.

There are situations in which the leader's weapons may be turned into perversions. The leader has access to two dynamic levers in order to influence his

subordinates: persuasion and seduction. Through persuasion, the leader gets close to its subordinates and through seduction he attracts them. The two influential manners are based on the physical magnetism of the leader (his presence wakes up to action), the magnetism of his intellect, of his ideas and thoughts (the leader is convincing, clear and accessible), the magnetism of his heart (the leader knows how to listen to others) and the soul's magnetism (charisma). The physical attraction may be used with the purpose of building a centripetal relationship, of getting closer to his subordinates. But, if the leader is not sure of himself, if he is a dilettante or has access to the management through illicit means, he will pervert the role that he was attributed with. One of the manifestations of perverted physical magnetism is the simulated activism that works in the disfavor of pro-activism, characteristic to authentic leaders, full of catching energy. A fake leader will inspire fear and inhibition. Other concrete behavioral aspects of perversion are chronic cynicism (the leader is the dominator, using its magnetism of thinking in order to minimize his counterpart), acute cynicism, pathological (manifested through paranoid behavior), that interprets the facts in such a way that they match his own ideas and defend his own interests (a sort of Procust's bed), emotional manipulation, which uses as a technique the Scottish shower, based on an alternation of positive and negative incentives, the leader's ego, that is expressed through a prophetic behavior with apocalyptic menaces in case of insubordination. In the same context, I have noticed that the descriptive analysis of the leader's behaviors has started by setting a list of possible behaviors associated with leadership - planning, setting up a group politic, setting up a reward system and sanctions, and assuming responsibility. This list has grown so much that researchers were forced to reduce the variety of the types of action to some key-dimensions. In the end, four dimensions were chosen: consideration towards the subordinates, the tasks structuring, the development of production and sensibility to human nature. Among these, the first two seem the most important. Consideration assumes relationship orientation and maintaining group unity. Structuring means orientation to the target in order to achieve the goal. In many groups, organized formally, the role of the leader is built explicitly on the group's structure. But, in a group with undefined structure, the role of the leader should be shaped.

The central issue of leadership wonders around the leader's behavior. Aside to the fact that you have to own the perfect combination of aptitudes and experience, the most important question is: how do you act in a leadership role? The behavior of the leader at organizational level finds itself in consonance with emerging rationality. We could say that it's an effect of the latter.

REFERENCES:

- [1]. **Buzărnescu, Ş.** (1999) *Sociologia civilizației tehnologice*, Editura Polirom, Iași
- [2]. **Hoffman, O.** (2004) *Sociologia organizațiilor*, Editura Economică, București
- [3]. **Weber, M.** (1978) *Economy and Society*, University of California Press
- [4]. **Weber, M.** (1993) *Etica protestantă și spiritul capitalismului*, Editura Humanitas, București
- [5]. **Zlate, M.** (2004) *Leadership și management*, Editura Polirom, Iași

COMMUNICATION - ORGANIZATIONS' WORK DEVICE

LAVINIA HULEA *

ABSTRACT: *Communication represents a complex process of transmitting messages, owing to which the emitter encodes the information transmitted through a specific channel towards a receiver that will decode it. Owing to communication, organizations transmit to their customers the fact that they are capable of meeting one of their needs, of settling a problem or of offering a profit. Non-verbal and para-verbal communications usually accompany verbal communication. The importance of assimilating the forms of communication is, at an organizational level, a complex device that determines the mastering of certain techniques, procedures, and algorithms of encoding and decoding intricate messages transmitted through various channels.*

KEY WORDS: *organizational communication; communication channels; verbal communication; non-verbal communication; para-verbal communication*

JEL CLASSIFICATION: *D83*

1. DEFINITIONS AND TERMINOLOGICAL SPECIFICATIONS

Communication is a complex process of transmitting messages, owing to which the emitter encodes the information transmitted through a specific channel towards a receiver that is going to decode it. The efficiency of the transmission is evaluated owing to the feedback reaction. One can more and more notice the tendency of displaying the communication process as being a unidirectional one, namely targeting the deliberate influence of the receiver by the emitter. At a common level, communication - as a message exchange between individuals - is understood as being the transmission, written or oral, of data. Owing to communication, organizations transmit to those who are interested the fact that they are capable of meeting one of their needs, of settling a problem or of offering a profit. During the last twenty years various models of representing the communication process have been elaborated. The model below emphasizes the key factors that intervene during an efficient communication.

* *Assist. Prof., University of Petroșani, Romania, laviniahulea@yahoo.com*

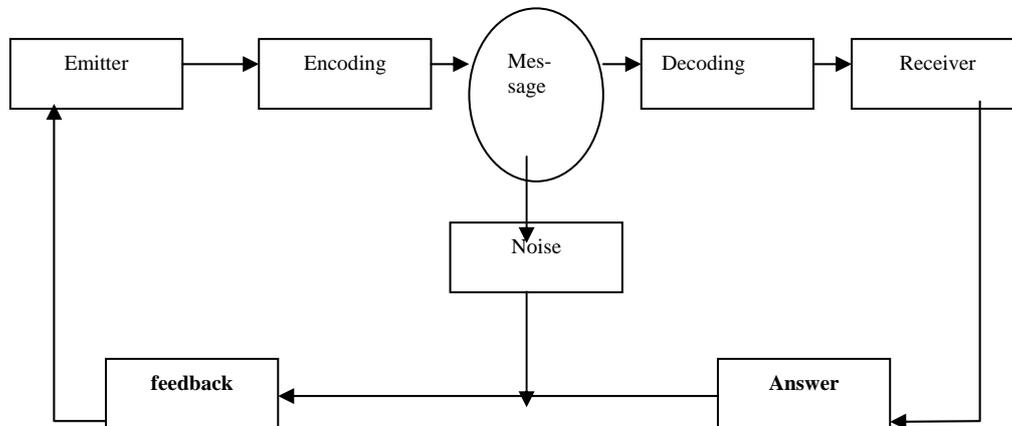


Figure 1. Graphic representation of the process of communication (Nita, 1999)

The communication process implies the following key elements:

- the emitter - the source of the message - that selects and encodes as a signal the data that are going to be transmitted towards the receiver;
- the channel - the means of transmitting the message;
- the code - a common system of rules, signs, and symbols which is specific to the members of a certain cultural community;
- the media - the manner of converting the message into a signal so that it can be transmitted through the specific channel;
- the noise - factors that influence the signal during its transmission (beginning with the encoding up to decoding). the noise limits the amount of information that can be transmitted under certain given circumstances; it can change the initial meaning of the message which, finally, determines perception and decoding errors at the level of the receiver;
- the receiver - the addressee of the message;
- the answer or the reverse reaction - the reaction of the receiver after decoding the message;
- feedback - the part of the receiver's answer backwardly transmitted to the emitter.

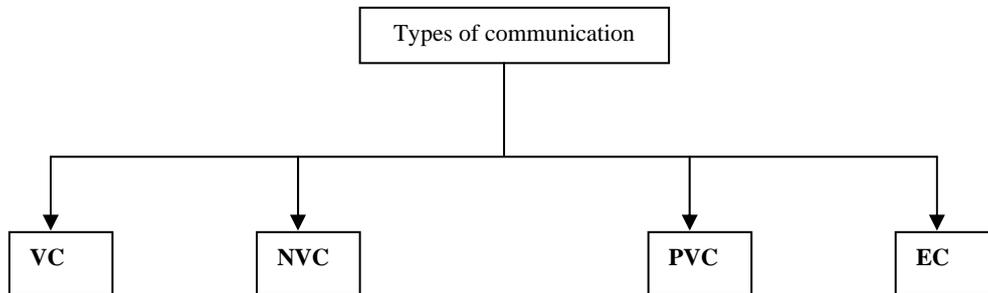
Inter-human communication is carried out according to four levels, namely: Logical (verbal): direct or oral; indirect or written; Para-verbal; Non-verbal; Energetic.

In the middle of the '70s, certain works emphasized the share of each of the already mentioned four levels of the communication process. Accordingly, the logical (verbal) level of language (the words) represents only 7% of the whole act of communication; 38% of the communication takes place on a para-verbal level (tone, volume, pronunciation speed, frequency, etc.), and 55% at a non-verbal level (gestures, mimics, dynamics of mimics, movements of the body or of certain of its parts, etc.). One can notice that, at the time, the problem of energetic communication was not yet formulated.

2. TYPES OF COMMUNICATION

The study of the three levels of communication as a whole (verbal, para-verbal, and non-verbal) is going to determine the understanding of the message from the point of view of the complexity of the types of communication - figure 2 which accordingly display the specific characteristics of each type of communication, emphasizing the essential elements of communication at the level of organizations.

Verbal communication - regards what people communicate owing to the transmission and decoding of the symbolical meaning of the words. The word is the raw material of verbal communication; at its turn, it includes a series of signs having a symbolical value.



VC-verbal communication; NVC-non-verbal communication; PVC-para-verbal communication; EC-energetic communication (Nita, 1999)

Figure 2. Types of communication

The multitude of the combinations of verbal signs that have specific significations draws out the vocabulary of a certain language. In case of words, the smallest particles that cannot be divided anymore are letters which are understood as formal associations between a given graphical representation and a certain meaning. Accordingly, a graphical sign might have one or several meanings and, reversely, a meaning might have several graphical signs. Let's refer to the meaning of "B" which, depending on the various cultures, has several graphical representations. Indo-European languages attach the graphical sign B to the meaning of "B", while Arabian language has a totally different graphical sign to be attached to this meaning which is quite undecipherable to a non-speaker. Similarly, to the meaning of "B" the specific sound of certain cultures may be associated, this being in fact its pronunciation.

The association of graphical signs according to a certain order determines a new meaning; in case one refers to the graphical signs of letters, their ordering determines a word. Accordingly, the meaning of the word "tulip" associates various formal orderings of graphical signs: in Romanian - "lalea", in French - "tulipe", etc. A word means verbal, symbolical language, irrespective of its being pronounced or written. From this point of view, written communication is also a verbal

communication as it also relies upon the language of words. The sound expression of *viva voce* is replaced by the graphical expression of the written word.

As a conclusion, one can state that verbal communication is done owing to verbalized words or written words.

Para-verbal communication - regards what voice (volume, intonation, intensity, rhythm, accent, pauses, etc) and verbal manifestations without a verbal content (laughing, coughing, moaning, sighing, belching, screaming, etc.) communicate. The inflexions of voice, its intensity, the energetic load of sonorous waves are all forms of para-verbal communication.

Non-verbal communication - regards the gestures, mimics or tacit phrases/expressions. The multitude of gestures, of mimics and of attitudinal expressions can altogether make up a non-verbal language exhibiting characteristics according to the various cultures.

It is quite important to understand that the meanings of gestures and mimics are sometimes different from one culture to the other.

The last two forms of communication (para-verbal and non-verbal) accompany, as a rule, verbal communication; frequently, the true meaning of a message is non-verbally or para-verbally influenced. The decoding of the non-verbal or para-verbal message as well as its impact upon the receiver depends on the following factors:

- the inner coherence of the individual;
- the capacity of dissimulation;
- the individual's ability and strength of manipulation;
- the capacity of self-control of non-verbal and para-verbal communication.

In short, when among the three levels - logical, para-verbal, and non-verbal - there are no contradictions; communication can be efficient; it means that the message has a major impact upon the receiver.

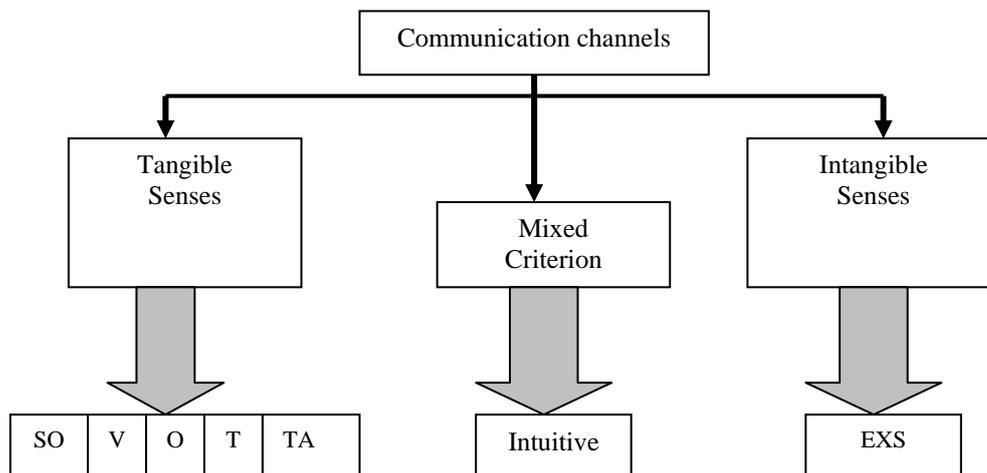
The transmitted message is not going to have the expected effect in case there is a contradiction among the levels and not a synchronism; contradiction determines the incoherence of the act of communication due to the different significance of the three levels of the message.

Energetic communication - lately, the specialists in communication have extended their researches towards a new domain, known as 'paranormal communication'. Specifically, two persons that find themselves at a certain distance from one another can transmit and receive messages without having a direct contact based on senses (auditory, visual, tactile, etc.). In fact, one deals with an energetic communication, energy being, according to physicists, a form of matter existence.

3. CHANNELS OF COMMUNICATION

Individuals' interaction (visual, tactile, sound contact, etc.) can be done owing to anatomic analyzers. Conventionally, the various types of communication means are called channels (figure 3). The most known and used communication channel is the sound channel (according to certain authors, the verbal channel). When considering the key elements that occur within communication, one may regard it as a process of

initiation, of transmitting, with or without change, and of receiving a certain message/enunciation which is shared by one or several actors as emitters - E and receivers - R who can become, owing to a part inter-change, co-emitters and co-receivers.



SO-sound; V-visual; O-odorous; T-tasty; TA-tactile; EXS-extra-sensorial

Figure 3. Tangible, intangible and mixed channels

The capacity of inter-change of a communication process is the ability of the receiver to become co-emitter through initiating and transmitting a message that is synchronic or not with the received message. A communication process is, accordingly, reversible. The existence of a reverse, tangible reaction of the receiver determines its reversing character as a specific element of communication. Let's notice that, when, during an emitter's message, the receiver interferes with a single verbal, para-verbal or non-verbal message, the reverse reaction appears; the moment the receiver emits the message the inter-change of the parts under the given circumstances occurs, a fact that represents the inter-change capacity of the communication processes.

Within the context of inter-human communication, individuals are not aware, most of the time, of the complexity of the communication act whose success depends on the encoding capacity of the emitter - E and on the correct decoding of the receiver - R. People establish contacts among each other, not only through transmitting a correct verbal message - anticipating the fact that they have adequately used the channel of verbal communication, but also through "touching", "seeing", "smelling", "inferring" the person next to them. In short, individuals also interact owing to channels that differ from the sound one which, nevertheless, is the most used one. Quite often, as communication specialists have shown, the use of the visual or tactile channels in association with the verbal one has an even larger impact at the level of the receiver as compared with the circumstances when only the sound channel is employed.

In fact, during a communication process a mixture of messages is transmitted through several channels. It is wide known that usually a message is better

acknowledged (up to 60%) when it is accompanied by a retinal image which is synchronic with the message. Figure 3 displays the division of communication channels as they are perceived by anatomic analyzers.

4. THE IMPACT AND IMPORTANCE OF VERBAL, NON-VERBAL, AND PARA-VERBAL COMMUNICATION

The tonality, frequency, and rhythm of speech are, most often, as important as the words. Certain authors consider that the meaning of the words represents 7% of inter-human communication, while tone 38%. The rest, namely 55%, represents the non-verbal message that is the “language of the body”. Most authors assign to verbal messages a maximum 10% share. The interference of para-verbal messages over the content of the oral message may determine the intensifying, weakening, distortion or annihilation of the significance of the words. Nevertheless, when adequately used, para-verbal messages become efficient devices of influencing and controlling the receiver. Para-verbal messages may determine, at the level of the organizations, the quick getting or losing of authority and control; it may also determine the approval or refuse of the issues in debate. Para-verbal messages encourage, intimidate, maintain pressure or give up control. During the process of inter-human communication, one should equally focus upon the logical (verbal), para-verbal, and non-verbal levels as a whole.

Non-verbal language together with the para-verbal one can support, contradict or even diminish the impact of the verbal message at the level of the receiver. Non-verbal message should be given most attention by the receiver as it is most close to the emitter’s reality. Non-verbal messages, irrespective of circumstances, have always an impact upon the sub-conscious. Most of the gestures and mimics involuntarily appear; they accordingly allow the actors implied in communication to also decode what lies beneath the verbal message and what is not intended to be transmitted. People say that there is a sixth sense that receives the information which is not verbally expressed by the emitter.

The preference for employing the verbal message is based upon the easiness of direct, oral communication, yet, only after it has been adequately acquired, namely after the individual attends various educational stages (elementary school, high school, faculty). Most often, when at the level of an organization, a serious matter should be analyzed, people consider that “face to face communication” is better employed and phone communication should be avoided. The fact resides in the obstructive character of the telephone which stops non-verbal communication and distorts para-verbal messages so that communication becomes incomplete and uncertain. The language of the body influences the impact of communication through the expression of the face, the movement of the body, the amplitude of the gestures, the form and position of the body, the general appearance, etc.

The impact is also wider owing to tactile communication - such as the texture of a cloth, the density of the cloth, the color, etc. as well as owing to the sound one - the rustle of a cloth, a shoe’s noise or a briefcase opening or closing.

The non-verbal communication transmitted through a visual channel has in view the expression of the face, the posture, the attitude, etc. The expression of the face includes the mimics (knitting the brows, pursing up the lips, etc.), the smile, and the eyes (the energetic contact of the eyes or its lack, the intensity of the sight, its expression and direction which can decisively influence the partner). Depending on the real internal feelings one can notice that people often involuntarily smile or frown, they fix the partner's eyes or grow red. The face is the most expressive part of the human body and its expression is an amazing means of communication. For instance, certain organization leaders consider that when talking with a business woman her eyes' expression is more important than the verbal message itself.

Mimics represent that expression of the face that communicates messages common or different from one culture to the other. Experimental decoding of the various messages transmitted by the expression of the face has shown that although one can identify certain standard expressions, nevertheless they differ from one individual to the other.

Accordingly, the forehead getting lined can express anger, anxiety, frustration or warning regarding the confidential character of a certain matter; the eyebrows lifted while having the eyes open usually express surprise, wonder; a wrinkled nose might show displeasure; enlarged nostrils may express anger; tightened lips show incertitude, hesitation, hiding certain data, preparing for a negative answer or scarcely dissimulated anger. Owing to the conscious control of the displayed non-verbal communication, a good communicator may also become a very good manipulator.

The smile is a complex gesture that requires a certain interpretation under specific circumstances. A smile is capable of transmitting a large gamut of data about the interlocutor's mood, beginning with pleasure, joy, satisfaction, and ending with promising, cynicism or embarrassment. The interpretation of the meaning of a smile varies from one culture to another, being strictly connected with those specific assumptions which are made in connection with the inter-human relations within the particular environment.

The sight represents a complex process with a strong emotional connotation. The manner people watch and the way they are watched is connected with people's need of approval, accepting, trust, and friendship as well as with people's desires and expectations. Even "looking to someone" or "not looking to someone" has certain significance. One generally considers that looking to someone means that the person's presence has been acknowledged. Intercepting somebody's eyes may be an invitation to communication or even a help demand. A direct sight might mean honesty and intimacy, although under certain circumstances it may express threat.

As a rule, a continual and insistent sight (of several seconds, even tens of seconds) disturbs, being able to determine a tensed mood of the person being watched. An intermittent and short sight contact may show lack of friendship, anxiousness or wish to communicate. The upward movement of the eyes expresses the attempt of reminding something; their downward movement shows sadness, modesty, shyness or hiding certain emotions or lies. Not to look to someone may show lack of interest or coldness. Avoiding the sight at the horizontal level of the two eyes means hiding the feelings, lack of comfort or guilt, even lie. The people who are not at ease with

themselves are going to avoid the interlocutor's eyes under certain circumstances when they feel threatened, while they will look for their interlocutor's eyes under favorable circumstances. Sight represents a "non-tactile" manner of touching somebody, of communicating what words cannot express; one deals, in fact, with an "energetic communication".

Dilated eye balls when the light intensity does not diminish in the environment show powerful emotions. The eye balls generally widen when something pleasant is being watched. The eye balls narrow when unpleasantness, anger or envy occur. Frequent blinking expresses anxiety, fear or even the risk of losing control while negotiating.

A posture mainly expresses the social statute individuals think they possess or want to exhibit, namely their desire of getting a certain social status. The posture of the body may also provide data about attitude, emotions, kindness or the power of negotiation, including the openness towards a sincere communication. Let's notice that when a message exchange between two persons who are sitting on chairs occurs, the one that manifests a tendency to dominate is going to raise the head upwards and lean the body backwards while the interlocutor, subconsciously impressed, will adopt a submissive attitude with the head slightly bowed frontward. As a rule, the body's bowing frontward expresses interest in the interlocutor; nevertheless, it may show anxiety and preoccupation. A relaxed position, leaning backwards, may show detachment, boredom or excessive self-confidence, power of negotiation, but also self-defense when facing persons having a higher social status.

Non-verbal communication transmitted through the tactile channel manifests itself through the frequency, intensity, and duration of touch, through the manner people shake hands, clasp the arms or slap the shoulder, etc. Touches have various significations depending on different cultures. Certain individuals avoid all kind of touches. The intensity and type of the touch largely depend on age, statute, the kind of relations among individuals, culture.

Personal presence communicates owing to the body's shape, clothes, smell (perfume or specific odor of the body), jewels or other accessories, supplemental data about the individuals regarding their preferences, attitudes, degree of education, etc. Our culture acknowledges certain attitudes regarding the connection among the shape of the body, the exterior appearance, and the personality. Accordingly, one deals with three types of physical appearance:

- Ecto-morph (fragile, thin, and tall);
- Endomorph (fat, round, and short);
- Mezzo-morph (muscled, athletic, and tall).

Due to social determinations, people are used to associate certain behavioral traits with each of the three physical types mentioned above. Accordingly, one tends to perceive ecto-morphs as being young, ambitious, suspicious, strained, nervous, and less masculine; endomorphs are perceived as being old-fashioned, less physically resistant, talkative, trustful, friendly, and pleasant, depending on third parties; mezzo-morphs are perceived as stubborn, powerful, adventurous, displaying a mature behavior, self-confident, and always victorious.

Clothes, to the extent to which they are the result of a personal choice, emphasize the individual's personality; they are an extension of the human ego and, consequently, under such circumstances, transmit data about the individual. Clothes can be used to "play" a part at an organizational level during negotiations. Quite often, clothes give the individual a shape that does not match the individual's inner character, being a screen behind which a series of shortcomings can be hidden. Clothes and accessories may also point the real or claimed social status. Let's remind those women who have important managerial positions and who tend to particularly dress up: a sober two parts suit, and who bear accessories similar to the masculine ones: suitcases.

Non-conformist clothes generally communicate the fact that their bearer is an original person, a social rebel, a problem initiating person, artist or journalist. Negligent clothes are mainly associated with the inner value of the individual. When doing business, organizations appreciate elegant and quality clothes instead of sophisticated ones. Personal hygiene is also an important factor.

Odor transmits in the environment messages the individuals are aware or not of. Strong perfume, though a high quality one, inadequately draws attention and suggests a poor taste or provoking intentions.

The importance of acknowledging the forms of communication at an organizational level resides in the fact that a good communication specialist will always be able to master techniques, procedures, and algorithms of encoding and decoding complex messages transmitted through various channels. In order to be understood, messages should be:

- Short, clear, precise, coherent;
- Visible and legible;
- Easily decoded;
- Adequate to the communication channel;
- Adequate to the targeted goal;
- Adequate to target-groups;
- Adequate to space, time, and context;
- Capable of catching attention;
- Non-contradictory.

The obstacles of verbal communication are determined by:

- Message's ambiguity due to inefficiently expressed meanings;
- Polarity - the tendency of regarding reality as contradictory hypostases and of describing it owing to extreme words (good or bad, nice or ugly, etc.);
- Generalization - general enunciations determining confusion and frequently generating conflicts, especially when words like: never, nowhere, nobody are uttered;
- Obvious and repeated indiscretion (regarding religious convictions, sexual behaviors, private life, etc.);
- Logorrhea that does not consider the receiver's interest;
- Egocentrism that induces frustration and gradually puts aside the interlocutors;

- Secrecy which has a negative communicational and relational effect as those partners whom secrets are not shared to feel excluded, offended, and suspected;
- Jargon that determines communication blocking when the auditorium does not grasp the meaning or when it does not match the status or educational level;
- Abstract language which determines interpretation and credibility issues.

REFERENCES:

- [1]. **Baddeley, A.** (1999) *Memoria umana*, Teora Publishing House, Bucharest
- [2]. **Birkenbihl, V.F.** (1999) *Semnele corpului - cum sa intelegem limbajul corpului*, Gemma Press Publishing House, Bucharest
- [3]. **Coates, Ch.** (1999) *Managerul total*, Teora Publishing House, Bucharest
- [4]. **De Fleur, M.; Ball-Rokeach, S.** (1999) *Teorii ale comunicarii de masa*, Polirom Publishing House, Iasi
- [5]. **Nita, M.A.** (1999) *Comunicarea in afaceri - suport de curs*, SNSPA, Facultatea de Comunicare si Relatii Publice „David Ogilvy”, Bucharest
- [6]. **Nita, M.A.** (1995) *Tehnici de comunicare si negociere - suport de curs*, SNSPA, Facultatea de Management, Bucharest

NECESSITY OR CHALLENGE - INFORMATION SECURITY FOR SMALL AND MEDIUM ENTERPRISES

CSABA LÁBODI, PÁL MICHELBERGER *

ABSTRACT: *Due to the inadequate management of information security expectations and various unexpected information technology incidents, small and medium enterprises that lose data or have to cope with a lack of data over a certain period of time may lose business commissions or customers. A solution to this problem may be the regulated administration of information security, which may lower the amount of risks. Enterprises in this sector generally have not enough human, material and information technology resources to perform tasks of this sort. The controversy seems to be an irresolvable one; the authors attempt to provide help to initiate a solution to the issue that remains above the 'still acceptable' level. The paper surveys several professional sources as well as standards, recommendations, and methodologies applicable in the field. The authors of this paper consciously strive to differentiate between information technology security and information security.*

KEY WORDS: *SME; information security; IT security; integrated management system*

JEL CLASSIFICATION: *L19, M15*

1. INTRODUCTION

It is proven by two international surveys (SMB Disaster Preparedness, 2009); (Outpacing change, 2009) that enterprises do not put adequate weight on IT security and information security. The situation is especially disappointing in the case of SME - small and medium enterprises. Their business environment and the demands they have to meet keep changing rapidly; in addition, these organisations (as a result of their size) are more flexible than large companies. The category of micro, small and medium-sized enterprises (SMEs) is made up of enterprises which employ fewer than 250

* *Private Lecturer, MSc, University of Pannonia, Faculty of Economics, Department of Applied Economics, labodi.csaba@almos.uni-pannon.hu*

Prof., Ph.D., Óbuda University, Keleti Károly Faculty of Business and Management, Institute of Management and Organisation, michelberger.pal@kgk.bmf.hu

persons and which have an annual turnover not exceeding 50 million euro, and/or an annual balance sheet total not exceeding 43 million euro in EU (Slusariuc, 2004). Their information security activities (or the absence thereof) present lower risks but require constant supervision and renewal. Professional sources provide numerous ideas and proposals regarding the way to reach and maintain a higher level of information security with fewer available resources. We attempt to provide guidance to the members of the SME sector in the development of their information security activities with the help of useful ideas quoted from our sources, our own experience, and the relevant background of standards.

2. INFORMATION SECURITY AND IT SECURITY

In a society and economy increasingly based on knowledge, information is a business company asset which lies at the heart of managerial decisionmaking as well as success in business; it is at the same time the “power source” of the applied information technology, thus being a decisive factor in efficient operation. Among other things, information may be related to products, services, technology know-how, available resources, or business partners. If information is missing, inaccurate, out-of-date, or if it lands in unauthorised hands, the enterprise may face damage. Information thus needs to be protected...

Today this means (ISO/IEC 27001):

- **confidentiality** (the information must be available exclusively to authorised parties);
- **integrity** (the wholeness and exactness of the information must be preserved);
- **availability** (authorised users must access the information when necessary).

Information security is a far more complex issue than IT security. Nowadays it is not enough to think in terms of antivirus programmes, firewalls, reliable hardware and unambiguous identification systems. The conscious construction of the technological background no longer suffices. The integrity, availability, and confidentiality of information is primarily threatened by negligent handling or purposeful damage at the hands of internal employees (through company information control systems and the intranet) and strategic partners with access through the internet, extranet or Electronic Data Interchange to company databases (suppliers, retailers, cooperation partners and financial service providers). Several other qualities, such as accuracy, accountability, non-repudiation, and dependability may also be linked to information security.

Generally, it is the handling of information and information carriers that is regulated in order to protect information property. This is independent from the form the information is presented in. Protection functions well if the information to be protected is defined, along with internal and external threats, the risks posed by these, and the regulations and means of protection (ISO/IEC 27002). Threats to the company “information property” may be manifold; the list below is far from complete: erroneous software applications, malfunction, unprofessional/inefficient information technology planning and operation, unauthorised use or access, natural disaster situation (fire, flood, earthquake), viruses, spy programmes, sniffing and spoofing, unpermitted software use, unqualified workforce, deliberate fraud or misuse, abuse.

The aim of information security is to ensure the continuity of business in a structured manner and mitigate damage caused by security events. Information security may be achieved with the application of protective measures, taking risks into consideration. These consist of regulations defining company processes, the company structure reflecting these processes, and the regulated operation of IT tools (hardware, software, telecommunications devices) appropriate to them.

Information security is a state. In order to ensure the long-term operation of business organisations, the application of a system providing security is necessary (instead of means and devices that give a false sense of security). Professional sources define several interconnected dimensions or levels of security. Ji-Yeu Park and co-authors speak of three further “layers” beyond the adequate handling of IT infrastructure (hardware, software and network protection) Infrastructure Level (Ji-Yeu Park, et al., 2008): *Information Level* (e.g.: who may use, add, modify or delete what data...); *Workflow Level* (process control, workflow); *Organisational Level* (individual and group decisionmaking, information security strategy, risk management). A good example to this is the “holistic” structuring of the authorisation system. All four levels have related tasks:

- IT level - user identification;
- Information Level - ensuring access only to data minimally required to perform the work;
- Workflow Level - the division of critical processes, location- and person-bound authorisation (it is frequent within SMEs to “pass on” the password and log on simultaneously with the same password from various locations...);
- Organisational Level - risk avoidance, the creation of authorisation groups and the regulation of the constant supervision of the authorisation system.

Another source also defines four elements to be examined and regulated in the case of an information security system created for SME (Hangbae Chang, et al., 2006): technical elements or Component (purchased hardware and software, network tools); knowledge and experience elements or Human IT (as the company uses IT elements...); shared information service elements within the company (for end users); shared and Standard Applications, e.g.: ERP systems (training and support for users).

The creation of a supportive environment to information security is also important, which means an accepted information security policy, clearly defined areas of responsibility, training, and the assurance of financial resources. Only after all this may information security as a state be created. Among other things, this involves the full registration of IT devices and documentation, risk assessment (for IT devices and the challenges of the environment), and the handling of user authorisations (for access to documentation, networks, servers, workstations, application software, and the information itself).

3. INFORMATION SECURITY MANAGEMENT SYSTEM

SMEs usually do not have adequate human, material, and technical resources to properly manage information security. For these organisations, it may be especially important to make transparent the related activities and tasks. A simple management

method used in the English-speaking territories may help to somewhat improve the poor situation created by the lack of resources (Tawileh, et al., 2007). The required level of information security may be approached or an information security management system may be created on the basis of the so-called CATWOE problem analysis model (a series of steps);

C (Customer) - What enterprise will create an information security management system?

A (Actors) - Who will create and operate the management system?

T (Transformation process) - What is the main aim of the management system?

W (Worldview) - How will the enterprise achieve this “main” information security aim?

O (Owner) - Who is the owner of the organisation and the management system?

E (Environment) - What is the effect of environmental forces on the information security management system within the organisation?

Once we can give answers to these questions we “only” need to force the enterprise into a four-step “management circle” complete with feedback, one similar to the PDCA (Plan - Do - Check - Act) cycle: the definition of company information security targets; the identification of the necessary activities; the execution of these activities; the supervision of the information security management system.

3.1. Critical company areas

Information protection is especially important for companies that: have information at the basis of their operation, or where operation is fundamentally determined by data and information; maintain links with partners by IT means, and the maintenance of electronic contacts is a major factor in external links (e.g.: logistics organisations); are involved in receiving, processing, storing, and forwarding data of other organisations or persons (e.g.: cooperating partner, client); are involved in the implementation, development, setup, and installation of IT systems (e.g.: IT companies); perform research and development work where the produced results and value basically take the shape of information; own, create, and handle confidential and private information. Nowadays this list may be extended with one other field: companies using mobile devices and the internet to distance-access services.

3.2. Standards, recommendations, methodologies

There exist several internationally renowned and accepted documents on the regulation of IT security and information security. In this subchapter, we shall mention a few of these - the ones we deemed important. Their approaches and target areas are obviously all different but all discuss the protection of company information.

Common Criteria (henceforth abbreviated CC) traces its origins to the US but has been taken over by Canada and the European Union. It is easy to recognise from the full title of the document (Common Criteria for Information Technology Security Evaluation) that it was created for the measurement and evaluation of the security

levels of IT products and systems (www.commoncriteriaportal.org). A European standard version has been available since 1999 (ISO/IEC 15408-1, -2, -3).

It clearly defines for organisations performing security audits what a system must provide and how this may be examined in a way that may be exactly repeated. For developers it ensures the clear definition of security solutions and sets the requirements the delivered product has to meet. For consumers (users) it makes it possible to clearly define their requirements regarding the security functions of products and systems and compare the different security solutions. Evaluation criteria are listed in Section 2. (security functions) and Section 3. (guarantee requirements) of the standard.

ISO/IEC 2700x is an information security management system or standard package of British origin, providing guidance to information security activities (www.iso27001security.com). Companies define security requirements and related measures on the basis of business objectives and organisational strategy. Information security (integrity, confidentiality, and availability) is treated with special emphasis. It is not linked to any sort of information technology. The standard (ISO/IEC 27001) divides company operation and the related requirements into 11 protection areas, and, within these, 39 targets and 133 protection measures. The information security management system, once it has been implemented and documented, may be accredited by an independent accreditation organisation (ISO/IEC 27002). In the standard package there appear a few supplementary sections, presented as individual standards (e.g.: implementation guidance - ISO/IEC 27003; information security risk management standard with advice on selecting appropriate risk analysis and management tools and methods - ISO/IEC 27005). Development never stops. There are plans for further standards (e.g.; guidance on information security management for sector-to-sector communications - ISO/IEC 27010; guidance on the integrated implementation of ISO/IEC 27001 and ISO/IEC 20000-1 as IT Service Management - ISO/IEC 27013).

The **ISO/IEC 20000-1, -2** standards on the operation of information systems is based on and harmonised with the ITIL (Information Technology Infrastructure Library) recommendation of British origin (www.itsmfi.org). The first half of the document gives a formal specification and defines the requirements for an organisation to deliver managed services of an acceptable quality for its customers, while the second part is a Code of Practice and describes the best practices for Service Management processes within the scope of ISO/IEC 20000-1.

Service management activities are linked to the currently popular PDCA model, which is employed in several standards.

Beside the management system, the issues of the planning and implementation of IT services, and the planning of new services there are five areas in total service management:

- Service Delivery Processes (service level management, service reporting, capacity management, service continuity & availability management, information security management, budgeting & accounting for IT services)
- Control Processes (configuration- and change management)
- Release Process (handling the release of documents and operation manuals, documenting the approved changes)

- Resolution Process (incident- and problem management)
- Relationship Processes (customer service, the management of business and supplier contacts)

The ISACF (Information Systems Audit and Control Foundation, IT Governance Institute, USA) has developed a recommendation entitled “COBIT” (Control Objectives for Information and related Technology) (www.itgi.org/cobit). Practically, this material is a management tool which helps users to understand and handle risks and advantages connected to information and information technology. This internationally approved and developed “framework” was created primarily for business enterprises and is aimed at harmonising information technology services and the operation processes of the organisation as well as facilitating the measurability of the security and management features of information technology services. COBIT is a collection of documents grouping best practices according to a set of criteria. In order to ensure the necessary information for the fulfilment of organisational (business) aims, information technology resources must be managed within a framework of connected procedures. With its use, we may bridge the gap between business risks, control requirements, and issues of technical nature. The system may be used by the upper management, the users, IT professionals, and the controllers of the information system at the same time. The real aim of COBIT is the achievement and maintenance of information technology security at a minimum risk and maximum profit.

Its structure is as follows: *Executive Summary; Framework; Control Objectives* (34 high level processes, management guidelines and maturity model + management guidelines, critical success factors, Key Goal Indicators, to define target levels of performance; and Key Performance Indicators, to measure whether an IT control process is meeting its objective) *Supplements* (summary overview, case studies, frequently asked questions)

The recommendation defines 34 “management” goals in connection with information technology processes, dividing them into four areas: 1. Plan and Organise; 2. Acquire and Implement; 3. Deliver and Support; 4. Monitor and Evaluate. There are 215 specific and detailed control objectives throughout the 34 high-level IT processes.

3.3. Integrated management systems

In the past decade or so the acceleration and substantial transformation of technical, economic, and information technology development has furthered the creation of a strong, international economic organisation force and a knowledge-based economy, which requires complex intellectual skills in the decisionmaking process. The most effective solution for multi-factor tasks is offered by the implementation of management systems based on TQM principles*, the EFQM (European Foundation for Quality Management) model (figure 1) or ISO standards.

Management systems harmonise subprocesses, byprocesses and control system elements, thus ensuring that the management is able to continuously control and

* *The principles of TQM: customer satisfaction; process management; management by fact; continuous improvement; total participation and empowerment; strategic focus and alignment; openness to innovation and changes (Tenner, A.R & De Toro, I, J., 1993)*

regularly check the processes, tools, and resources that are the decisive elements of its activity. The simultaneous and integrated application of system standards facilitates the execution of more complex tasks. The control of main and subprocesses may be exercised simultaneously with the maintenance and development of process capability, the achievement of error-free operation, the lowering of resource use and costs, the increase of profit, and the development of the work environment. There also may present itself the demand of the efficient and homogenised treatment of an upper-management area, such as for example finances, liquidity, economic decisions, the handling of the changes in the legal environment, logistics, the application of motivation techniques, communication and marketing.

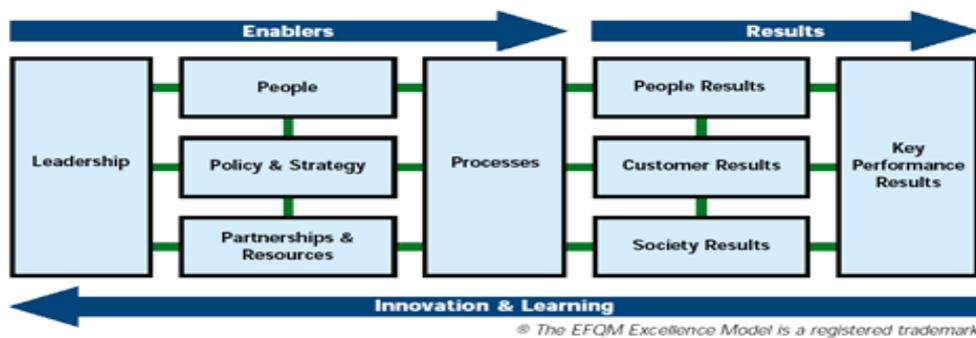


Figure 1. European Foundation for Quality Management; Excellence Model
(www.efqm.org)

A sustaining element of PDCA model-based, process-centred integrated management systems is the use of information technology infrastructure. With its implementation the management of complex tasks is made simpler, more effective and more efficient; as a part of the system of value creation it contributes to the fulfilment of business expectations and the achievement of competitive advantage.

An openly mentioned aim behind the continuous reform and development of the ISO/IEC 2700x standard package is the unified treatment of divergent standard management systems (quality and environmental management systems), and the avoidance of multi-regulation for business processes. In the supplement of the ISO/IEC 27001 standard we find a table showing the connections between standards and the similarities of their structures. Many organisations have started implementing and operating so-called integrated management systems in Hungary, as well. It is probably a feasible way for smaller companies not too well provided with capital to cope with the demands of their business environment. The control, pre-audits, and accreditation of the management systems in every third year facilitates the possibility of continuous development for the organisation.

Due to the widening of on-line corporate relationships, it may be observed that smaller organisations wish to treat the control of IT systems (IT security) and the information security connected to business processes under a homogeneous regulation system.

3.4. Auditing as a possibility

Auditing is a supervisory activity executed by an independent external organisation authorised for the activity. According to the regulations of various standards, auditing may cover the main and subprocesses of the organisation, the environmental protection aspects of the activity pursued by the organisation, the related labour safety issues, the fulfilment of various specifications of the industry, the information security management system itself under ISO/IEC27001, or information technical products, or product families under ISO/IEC 15408.

The certificate issued by the organisation accrediting management systems is proof of the conduct of an objective examination conducted according to the internationally approved standards, and of compliance with the requirements of the internationally approved standards. In addition, the certificate issued about information technology products proves that the developer of the product assumes responsibility for the product up to a guarantee level assumed by himself. The possession of a certificate improves the reputation of the organisation and its products. It results in lasting trust on behalf of business partners towards the company and thus lays down the fundamentals of its success in business.

Auditing a management system also includes the examination of how clients' demands may be fulfilled, and surveys the guarantees provided by the system. The areas listed cover the prescriptions of the set of requirements observed during the implementation of the system, their adequate regulation and documentation: Security policy; Risk assessment and management; Business Continuity Plan; Disaster Recovery Plan; Declaration of applicability; Data protection, virus protection; Documentation and inspection of incidents and events; Security rules connected to jobs and persons, the existence of applicable laws, other (external) prescriptions and professional regulations, awareness of these and compliance with them; The existence of administrative - environmental (security guarding) - information technology regulations, knowledge and practice, their simultaneous application.

Naturally, the implementation of an audited integrated management system is not always possible due to the lack of resources but the holistic examination of the company's work may lead to "integrated" security.

4. INFORMATION SECURITY AWARENESS

Physical security and protection means the creation of the necessary environment, to fend off accidental or deliberately caused damage or disasters. The areas of logical security and the related operative protection are as follows: data protection (personal and business data); application level protection (log); access and authorisation systems; saving and archiving systems; the regulated operation of the links between the internal and the external net; software protection of IT devices (e.g.: virus control); worst-case scenarios in disaster situations.

In addition to physical and logical risks, human beings may be an additional hazard source. Over the recent past, issues of human security have risen in value (e.g.: revenge acts by dismissed employees, operation disturbances due to inadequate

training) (Outpacing change, 2009), but SMEs do not put sufficient weight on these issues. The publication of the ENISA, a professional organisation in the European Union has issued a publication entitled “How to Raise Information Security Awareness”, which provides communication aid for companies. The document makes special mention of obstacles faced by SMEs and defines critical success factors, as is usual in publications of this sort. It is important to make employees understand that information security is not only the responsibility of IT specialists... The creation of information security awareness is perhaps the least cost-demanding issue, yet it is not a simple task but one requiring constant training and “maintenance”.

5. INSTEAD OF CONCLUSION

What can an SME do if it wants information security and has not got the necessary resources?

We strive to answer by modifying and extending Andy Horn’s proposals (Horn, without date):

1. Develop an information security policy and communicate it! Define what business information is important, who has to be able to access it, and in what way.
2. Examine business processes from the perspective of risk. Develop processes to implement and maintain the policy! Appoint persons responsible for information security in each organisation unit.
3. “Centralise” software purchase. Applications should be tested and checked before use (this is particularly true for free downloads...).
4. There should be a constantly updated register of IT devices and databases. Look after physical and data assets!
5. Employees should be kept informed - by formal training, if necessary - the information security tasks that apply to their jobs and make certain they are aware of their responsibility. Strive to keep the “clear desktop, clear screen” rule.
6. Create and implement information management rules, especially in the case of confidential personal and business data. Comply with regulations!
7. Pay attention to physical security, the storage of IT devices and the prevention of unauthorised access to these. Control physical access to information!
8. Ensure business continuity in a crisis or disaster situation! Store important business data redundantly, with the employment of an external service provider, if necessary.
9. Explore and use the information technology possibilities provided by basic and application software (e.g.: log, secrecy).
10. Protect IT and communication systems against malignant software and unauthorised access (e.g.: antivirus, spam filter, and anti-spyware applications)

REFERENCES:

- [1]. **Chang, H.; Kim, J.; Lim, S.** (2006) *Information Security Management System for SMB in Ubiquitous Computing*. Lecture Notes in Computer Science, Volume 3983, pp. 707-715
- [2]. **Horn, A.**, *Information Security - More Than An IT Challenge for SME*. Available at: www.freshbusinessthinking.com/business_advice.php?CID=3&AID=2629&PGID3 [Accessed 23 November 2009]
- [3]. **Park, J.Y.; Robles, R.J.; Hong, C.H.; Yeo, S.S.; Kim, T.** (2008) *IT Security Strategies for SME's*, International Journal of Software Engineering and its Applications, 2(3), July, pp. 91-98
- [4]. **Slusariuc, G.** (2004) *Comparative analyse of the SMEs from Romania and European Union*, Annals of the University of Petrosani, Economics, 4, pp.283-288
- [5]. **Tawileh, A.; Hilton, J.; McIntosh, S.** (2007) *Managing Information Security in small and Medium Sized Enterprises: A Holistic Approach*. Highlights of the Information Security Solutions Europe, SECURE Conference, Warsaw, (ISSE/SECURE 2007 Securing Electronic Business Processes, pp. 331-339.)
- [6]. **Tenner, A.R.; De Toro, I.J.** (1992) *Total Quality Management. Three Steps to Continuous Improvement*, Addison-Wesley Publishing Company, Inc., New York
- [7]. **European Network and Information Security Agency - ENISA** (2006) *How to Raise Information Security Awareness (A Users' Guide)*, June, Available at: www.enisa.europa.eu/act/ar/deliverables/2006/ar-guide/en [Accessed 24 November 2009]
- [8]. **SMB Disaster Preparedness** (2009) *Survey Results*, September, Available at: www.symantec.com/content/en/us/about/media/SMB_Disaster_Recovery_Survey_Report_Global_2009.pdf [Accessed 1 December 2009]
- [9]. **Ernst & Young** (2009) *Outpacing change. 12th annual global information security survey*, Available at: [www.ey.com/Publication/vwLUAssets/12th_annual_GISS/\\$FILE/12th_annual_GISS.pdf](http://www.ey.com/Publication/vwLUAssets/12th_annual_GISS/$FILE/12th_annual_GISS.pdf) [Accessed 8 December 2009]
- [10]. IT Governance Institute, USA. *COBIT 4.1. Excerpt, Executive Summary, Framework*, Available at: www.itgi.org/ContentManagement/ContentDisplay.cfm?ContentID=50254 [Accessed 12 June 2010]
- [11]. IT Service Management Forum (2007), *An Introductory Overview of ITIL V3*. Available at: www.itsmfi.org/files/itSMF_ITILV3_Intro-Overview_0.pdf [Accessed 19 January 2010]
- [12]. *ISO27k Toolkit. Version 3.8* (2009) Prepared by the international community of ISO27k implementers at www.ISO27001security.com Available at: www.ISO27001security.com/ISO27k_Toolkit_overview_and_contents_3v8.rtf [Accessed 19 January 2010]

ENTREPRENEURIAL FINANCE: ANGEL INVESTING AS A SOURCE OF FUNDING HIGH-GROWTH START-UP FIRMS

SONJA MARKOVA, TATJANA PETKOVSKA-MIRČEVSKA *

ABSTRACT: *One of the most difficult components in starting and growing a new venture is securing funding and other resources to sustain the firm's survival and growth. Funding for many new ventures comes from a large, yet relatively unidentified, group called angel investors. This paper provides an overview of angel investing as a source of funding for start-up firms.*

KEY WORDS: *Angel investing; venture funding; entrepreneur; innovation; start-up*

JEL CLASSIFICATION: *L26*

1. INTRODUCTION

New ventures are critical contributors to economic growth through their innovation, job creation, competitiveness, and entrepreneurial behaviour. The key process in driving change in the marketplace is the introduction of innovations, and the central innovator is the entrepreneur. "The function of entrepreneurs is to reform or revolutionize the pattern of production by exploiting an invention or, more generally, an untried technological possibility for producing a new commodity or producing an old one in a new way, opening a new source of supply of materials or a new outlet for products, by reorganizing a new industry" (Schumpeter, 1952). US President Barack Obama acknowledged the role small businesses have at a speech he gave about job creation at the Brookings Institution in Washington, DC. on December 8, 2009, "Over the past 15 years, small businesses have created roughly 65 percent of all new jobs in America...These are also companies that drive innovation, producing 13 times more patents per employee than large companies".

One of the most difficult components in starting and growing a new venture is acquiring capital and other resources to sustain the firm's survival and growth. The

* *Director, MBA, Tiburon Research Group, USA, markova@gmail.com
Prof., Ph.D., Institute of Economics, Macedonia, tatjana@ek-inst.ukim.edu.mk*

lack of funding can lead to cash flow problems, missed opportunities, and shutdown of the fledgling enterprise (Van Auken, 2002). Funding for many new ventures comes from a large, yet relatively unidentified, group called angel investors. Angel investing supplies more capital to early-stage companies than do venture capital firms and this capital drives most of the economic growth and job creation in the United States (Wiltbank, 2005). The term "angel" originally comes from the Broadway theatre in New York where it was used to describe wealthy individuals who provided money for theatrical productions. In 1978, William Wetzel, then a professor at the University of New Hampshire and founder of its Center for Venture Research, completed a pioneering study on how entrepreneurs raised seed capital in the USA, and he began using the term "angel" to describe the investors that supported them. Today, the term angel usually refers to high-net-worth individuals who make investments of time and money to help startup companies through their initial stages of growth (Lange, Leleux, & Surlemont, 2003).

The US Securities and Exchange Commission, under Rule 501 of Regulation D in the Securities Act of 1933, provides a definition of an accredited investor. A natural person can qualify as an accredited investor if they have an individual net worth, or joint net worth with the person's spouse, that exceeds \$1 million. Another qualifier is income. A natural person with income exceeding \$200,000 in each of the two most recent years or joint income with a spouse exceeding \$300,000 for those years and a reasonable expectation of the same income level in the current year also qualifies as an accredited investor. The Federal Reserve's Survey of Consumer Finances from 2004 to 2007 estimates that over 6 million US household qualify to be accredited investors. Many studies estimate that the number of active angel investors in the US is between 250,000 and 400,000. Acting alone, angel investors face a common set of challenges. Most individual angels do not see a consistent quality deal flow. They see only what they come across through their own contacts and relationships. They have limited capability to conduct in-depth due diligence that an early stage investment demands. They don't have the breath of knowledge and the time needed to perform deep due diligence and understand all aspects of the venture they are evaluating. Individual angels do not have the negotiating leverage to set ideal valuations and terms and conditions. Post investment, they lack the breadth of capabilities and network to really assist their entrepreneurs grow their companies, and increase the return to the angel's investment.

While angel investors have a long history, angel investment groups are a quite recent phenomenon. The first organized group of angel investors in the USA is the Band of Angels, which was formed in 1994. Angels began forming groups to collectively evaluate and invest in entrepreneurial ventures. These groups are seen as having several advantages by the angels in the opportunity to collectively pool capital to make larger investments than they could individually. Each angel can invest smaller amounts in individual ventures, allowing participation in a spectrum of opportunities thus diversifying their investment risks. They can also undertake costly due diligence of prospective investments as a group, reducing the burdens for individual members. These groups are generally more visible to entrepreneurs and thus receive a higher quality deal flow. Finally, the groups frequently include some of the most sophisticated

and active angel investors in the region, which results in superior decision-making. The Angel Capital Association (ACA), North America's professional alliance of angel groups, lists 300 American groups in its database. According to the 2009 ACA Angel Group Confidence Survey, its member angel groups in average have 43.6 members. The average ACA member angel group invested a total of \$1.78 million in 4 deals in 2006 with an average of \$241,528 invested per round, \$1.94 million in 4.8 deals in 2007 with an average of \$265,926, and \$1.77 million in 3.7 deals in 2008 with an average of \$276,918 per round. When asked about major changes to the group structure or investment process that the ACA member angel group predicts, 53.8% of the respondents expected to do more co-investment with other groups, 35.4% expected to increase co-investment in general, and 32.3% expected to invest more in their portfolio companies.

2. ANGEL INVESTMENT PROCESS

Investment Criteria. At the heart of the entrepreneurial process are the creation and/or recognition of opportunities. Entrepreneurial ventures go through several stages in their lifecycle. In the *seed stage* the entrepreneur has a concept for a potentially profitable business opportunity that still has to be developed and proven. In the *start-up stage*, the newly formed business is completing product development and initial marketing. Typically the business is one year old or younger. In the *early stage* the firm is usually expanding, and producing and delivering products or services. It is often less than five years old and it may not yet be profitable. In the *later stage*, also called the expansion stage, at this level of development the firm is mature and profitable, and often still expanding. With a continued high-growth rate, it may go public within six months to a year. Table 1 indicates the level of investment entrepreneurial ventures typically need and seek to obtain from investors in different stages of their lifecycle. Angels fill the gap in the funding of entrepreneurial ventures below the threshold at which venture capital firms would invest.

Table 1. Investment Needs in Different Stages of the Start-Up Venture Lifecycle

Stage	Seed	Start-Up	Funding Gap	Early Venture Stage	Later Venture Capital
Source	Founder Friends Family	Individual Angels	Angel Organizations	Venture Funds	
Amount Invested	\$25,000 to \$100,000	\$100,000 to \$500,000	\$500,000 to \$2 million and up	\$2 million to \$5 million and up	

Ventures suitable for angel financing are ones with capital requirement of \$100,000 to \$500,000, with sales potential of between \$2 million and \$20 million within five to ten years, small, established, privately held ventures with sales and profit growth of 10% to 20% per year, special situations, such as very early financing of high-technology inventors who have not developed a prototype, and companies that project high levels of free cash flow within three to five years. Angel investors expect an average 26% annual return at the time they invest, and they believe that about one-

third of their investments are likely to result in a substantial capital loss. Angels list the following top ten criteria when considering investing in a start-up venture: (1) enthusiasm of the entrepreneur, (2) trustworthiness of the entrepreneur, (3) sales potential of the product, (4) expertise of the entrepreneur, (5) investor liked the entrepreneur upon meeting, (6) growth potential of the market, (7) quality of product, (8) perceived financial rewards for investors, (9) niche market, and (10) track record of the entrepreneur. Angels accept an average of 3 deals for every 10 considered. The most common reasons given for rejecting a deal are: insufficient growth potential, overpriced equity, lack of sufficient talent of the management, lack of information about the entrepreneur or key personnel.

Deal Review and Selection Process. Most groups follow a similar deal selection process. Entrepreneurs typically begin the process by submitting to the group an application that may also include a copy of their business plan or executive summary. Some groups prefer that the deals are introduced or championed by one of its members. The entrepreneurial ventures are initially screened by the angel group staff and some of its members with domain expertise. The ones that advance in to the next step are then invited to give a short presentation to a small group of members, followed by a question and answer session. Promising companies are then invited to present at a monthly meeting (often a weekday breakfast or dinner). The presenting companies that generate the greatest interest at the investor meeting then enter a detailed due diligence process with the group members that are interested in the deal. Depending on the findings in due diligence, the angels make an investment three to six months after the presentation. Most often the angels invest directly in the company, with all angel group members entering with the same terms. Some groups invest from a pulled investment fund where a designated group manager (member) leads the funding process. As an example, Figure 1 provides an outline of the Keiretsu Forum monthly deal review process.

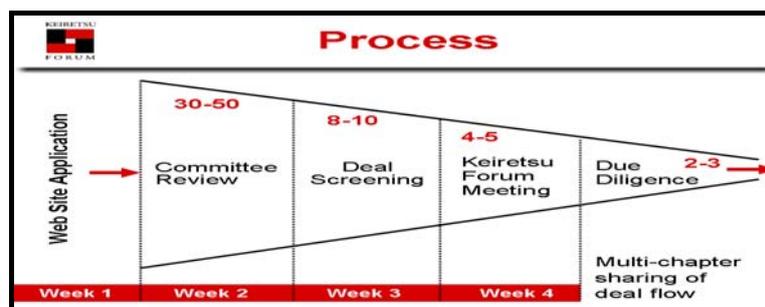


Figure 1. Keiretsu Forum Process

Keiretsu Forum is a large global angel investment network that started in 2000 in the San Francisco Bay Area. It has since expanded to eighteen chapters in America, Asia, and Europe and over 750 members. Its members invest in a variety of industries in the amount of \$250,000 to \$2 million. The Keiretsu Forum chapters implement the same deal selection process and the deals that receive the most interest in the local

chapter are then invited to present to other chapters in the network. Additional information on this group is provided at <http://www.keiretsuforum.com/>.

1. *Entrepreneur Application.* Companies that apply to Keiretsu Forum are typically in their A or B rounds, usually with \$500,000 to \$1.5 million received in friends and family investments. Interested companies complete an application (Fact Sheet) available on the Keiretsu Forum web site.

2. *Committee Review.* Candidate companies are pre-screened by an industry-specific committee. Keiretsu Forum has the following committees: clean technology, consumer “cool stuff”, digital media, food and beverage, life sciences/healthcare, real estate, social venture investing, software, and telecommunications committee. The committee chair assigns a team of two to five keiretsu forum members and a team leader of the pre-screening. Based on committee recommendation, each month eight to ten companies are scheduled to present at the Screening.

3. *Deal Screening.* At the deal screening eight to ten companies give a 15-minute presentation (7-minute core presentation followed by 8-minute question and answer session). After each presentation there is discussion on each company and the Screening Committee (about twenty Keiretsu Forum members) anonymously votes on a scale from 1 to 7 (where 1 is the worst and 7 is the best score). At the end of the deal screening the companies that ranked highest are selected to present at the Keiretsu Forum investment meeting.

4. *Keiretsu Forum Meeting.* The companies that are selected at the Screening present in front of the full Forum (approximately 130 members and invited guests). Usually four to five companies give a 20-minute presentation (10-minute core presentation followed by a 10-minute question and answer session). After each presentation, interested investor members sign in on an Interest List. At the end of the meeting, entrepreneurs are excused and the members have discussion on each company.

5. *Due Diligence.* The Company then enters into a due diligence phase with the Keiretsu Forum members that signed the Interest List. The company sets a conference call or meeting in their office seven to ten days after the presentation. It is common for one or two members to take the lead in due diligence and negotiations with the company.

6. *Multi-Chapter Investing.* After a company has presented to the chapter in the closest geography and has received investment interest traction from members of that chapter, the company then has the unique opportunity to present to other chapters of their choice. Members of each chapter conduct their own due diligence and make their own investment decisions; however they benefit greatly from shared due diligence. The members that decide to invest in the company make a direct individual investment.

Another example with data on the deal flow process was highlighted in a recent Harvard Business School study by Kerr, W., Lerner, J., and Schoar, A. (2010). The study analyzed data provided by the Tech Coast Angels and the Common Angels. Tech Coast Angels is a large angel investment group based in Southern California. They have over 300 angels in five chapters seeking high-growth investments in a variety of high-tech and low-tech industries. The group typically looks for funding opportunities of \$1 million or less. Additional details on this angel group are available at <http://www.techcoastangels.com/>.

Table 2 documents the selection funnel for Tech Coast Angels. The analysis was based on available records at the beginning of 2007 of over 2,500 ventures that approached Tech Coast Angels between 2001 and 2006. The central variable for the Tech Coast Angel analysis is a count of the number of angels expressing interest in a given deal. This indication of interest does not represent a financial commitment, but instead expresses a belief that the venture should be pursued further by the group. The decision to invest ultimately depends upon a few angels taking the lead and championing the deal. The first three columns show that 64% of ventures receive no interest at all. Moreover, 90% of all ventures receive interest by fewer than ten angels. This narrowing funnel continues until the highest bracket, where there are 44 firms that receive interest from 35 or more angels. The maximum observed interest is 191 angels. This funnel shares many of the anecdotal traits of venture funding - such as selecting a few worthy ventures out of thousands of business plans - but it is exceptionally rare to have the interest level documented consistently throughout the distribution and independent of actual funding outcomes.

Table 2. Tech Coast Angels Selection Funnel

Tech Coast Angels investment level	Number of ventures	Cumulative share of ventures	Share funded by Tech Coast Angels
0	1640	64%	0.000
1-4	537	84%	0.007
5-9	135	90%	0.037
10-14	75	93%	0.120
15-19	52	95%	0.173
20-24	42	96%	0.381
25-29	33	97%	0.303
30-34	21	98%	0.286
35+	44	100%	0.409

Angel Investment Returns. Few studies have been made to examine the returns from angel investing. Wiltbank (2005) found that 2/3 of angel investments fail while 20% of the investments returned an IRR of over 100%. In Wiltbank's sample, successful investments returned 2.9 times cash in an average 5.8 year holding period. In November 2007, Wiltbank and Boeker (2007) released the results of a survey of 539 angels whose investments have provided 1,137 exits. That research found that the average return on investment was 2.6 times with a holding period of 3.5 years resulting in an IRR of approximately 27%. Average IRR may be a misleading number when describing performance. Over half the investments surveyed returned less than the initial capital invested, and only 7% of the exits returned 10 times or more. That research also revealed three factors that have an effect on investment performance. First, the more time that angels spend doing due diligence, the greater the return from the investment. The more experience an angel has, the greater the return. Finally, angel activities such as mentoring, access to networks, coaching, and performance monitoring led to greater returns. The companies in which angels invested were early stage with 45% of the companies having no revenue stream at the time of the investment. Figure 2 details the distribution of returns across growing categories of multiples.

Roach (2008) provided the IRR on investments Keiretsu Forum members made in years 2000 through 2006 (see Table 3). The research analyzed over 120 investments in approximately 100 companies and excluded investments made in 2007 or later. These returns represent a hypothetical portfolio consisting of Keiretsu Forum investments made in the years 2000 through 2006. The returns include investments returned to investors through initial public offerings, mergers, acquisitions, and other exits as well as unrealized returns from new valuation events such as later stage investments that either increased or decreased the value of the original investments. Included in the results are also any closures or bankruptcies where the value of the original investments were written down to zero.

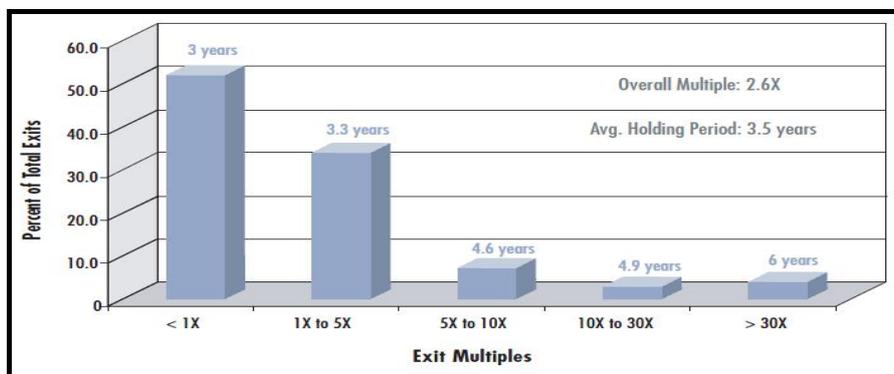


Figure 2. Distribution of Returns by Venture Investment

Table 3. Comparison of Keiretsu Forum Returns to Major Market Indices

Year	Keiretsu Forum	S&P 500	NASDAQ Composite
2000	-2.01%	-0.73%	-8.94%
2001	17.25%	0.87%	-3.74%
2002	13.28%	2.75%	1.87%
2003	8.49%	8.09%	11.81%
2004	16.99%	5.04%	4.62%
2005	12.25%	4.10%	3.21%
2006	20.13%	3.48%	4.03%

These returns are hypothetical since no single investor participated in all these investments. Figure 5 compares the Keiretsu Forum IRR results to those that could have been obtained in the major market indexes. The returns for the mutual funds assume that an investment was made on January 1 of each year and the investment was redeemed on March 31, 2008. This chart indicated that angel investing may have a broader role in the construction of investment portfolios with the idea that increased diversification reduces portfolio risk.

3. CONCLUSION

Angels have a significant role in supporting innovation by providing the first outside equity capital in start-up companies. The Center for Venture Research

estimates that U.S. angel investors invested \$19 billion in 55,000 deals (about 35,000 small businesses) in 2008. Angels invest both time and money in early stage entrepreneurs and their companies. Angel organizations now exist in nearly every American state. They have an impact on the venture ecosystem and they offer accredited angel investors the opportunity to invest in and help build successful companies. Angel investing is extremely risky. The most sophisticated angels make at least ten investments in order to make a return on their investment, counting on one or two to provide nearly all of their return. Since the risk and failure rates associated with start-up firms are extremely high, investors seek commensurable return. The key is the existence of efficient exit scenarios, such as mergers, acquisitions, initial public offerings, when investors can realize returns on their investment. Angel investing provides solid opportunity to individual investors for diversification of their investment portfolio while fuelling the economy by providing funding to innovative early stage opportunities.

REFERENCES:

- [1]. **Isom, C.J.; Jarczyk, D.** (2009) *Innovation in Small Businesses: Drivers of Change and Value Use*, Business Administration, Office of Advocacy
- [2]. **Kerr, W.; Lerner, J.; Schoar, A.** (2010) *The Consequences of Entrepreneurial Finance: A Regression Discontinuity Analysis*, Harvard Business School
- [3]. **Lange, J.; Leleux, B.; Surlemont, B.** (2003) *Angel networks for the 21st century: An examination of practices of leading networks in Europe and the US*, Journal of Private Equity
- [4]. **Metrick, A.** (2006) *Venture Capital and the Finance of Innovation*, Wiley; First Edition
Wilmerding, A. (2006) *Term Sheets & Valuations - A Line by Line Look at the Intricacies of Venture Capital Term Sheets & Valuations*, Aspatore Books
- [5]. **Roach, G.** (2008) *Angel Investing: A Case Study of The Processes, Risk, and Internal Rate of Return*, University Of Phoenix
- [6]. **Schumpeter, J.** (1952) *"Can Capitalism Survive?"*, New York, Harper and Row
- [7]. **Timmons, J.; Spinelli, S.** (2008) *New Venture Creation: Entrepreneurship for the 21st Century*; McGraw-Hill/Irvin, Eight Edition
- [8]. **Van Auken, H.** (2002) *A model of community-based venture capital formation to fund early-stage technology-based firms*, Journal of Small Business Management
- [9]. **Van Osnabrugge, M.; Robinson, R.** (2000) *Angel Investing: Matching Startup Funds with Startup Companies - A Guide for Entrepreneurs, Individual Investors, and Venture Capitalists*, Jossey-Bass; First Edition
- [10]. **Wiltbank, R.** (2005) *Investment practices and outcomes of informal venture investors*, Venture Capital
- [11]. **Wiltbank, R.; Boeker, W.** (2007) *Returns to Angel Investors in Groups*, University of Washington
- [12]. **Angel Capital Association** (2009) *ACA Member Landscape - 2009; Different Than 2008 (And Not)*
- [13]. **Federal Reserve Bulletin** (2009) *Changes in U.S. Family Finances from 2004 to 2007: Evidence from the Survey of Consumer Finances*
- [14]. **PricewaterhouseCoopers and National Venture Capital Association** (2008) *MoneyTree Report - Q4 2008/Full-year 2008*

THE NECESSITY OF ACCOUNTING INFORMATION IN THE MANAGEMENT OF THE COMMUNITARIAN SERVICES OF PUBLIC UTILITIES

DOREL MATEȘ, GHEORGHE CLAUDIU FEIES *

ABSTRACT: *We presented in this work the way in which the information furnished by the financial-accounting information system is used in the decision making process of the management of the operators of communitarian services from public utilities. Also, the implications of the accounting information in the planning and accomplishing the investments within the infrastructure necessary for the services of public utilities are presented. The financial-accounting information is created with the purpose of answering the requests of the management to fundament the decisions but also to satisfy the information needs of the other external or internal users. Regarding this, the financial-accounting information specific for the operators from the system of communitarian services of public utilities is presented and also the qualitative characteristics and the way the accounting information is gathered in order for it to have real value for planning, control and decision making. Also, are presented the situations with financial and performance indicators that are requested by ANRSC in order for the services of public utilities to be licensed, indicators calculated with the help of the data received from the financial situations.*

KEY WORDS: *accounting information; communitarian services of public utilities services; financial-accounting information system*

JEL CLASSIFICATION: *M41*

1. INTRODUCTION

In the process of decision making of the operators of communitarian services of public utilities we are interested in the technical and economical information. The latter are very important for the accounting. In this category we can include the accounting information. This is usual by its methods, procedures and instruments of economical data processing. It is the most real, precise, complete and operational

* *Prof., Ph.D., West University of Timisoara, Romania, mates.dorel@yahoo.com
Manager at Termo-construct S.A. Sebis, Arad county, Romania, feiesclaudiu@yahoo.com*

information because it represents the support of the managerial process, a large part of the decisions that are taken in the process of management of public services have as background the information obtained from the accounting.

In the management system of an operator of public utilities services, an important component is the informational financial-accounting circuit. The purpose of this circuit is to furnish accounting information to the management in order to adopt some decisions related to the organizing of the activities and planning of the investments. The informational financial-accounting system includes informational activities represented by the production and utilization of information by the users. More precisely, there are three types of activities related to the economical information: searching for private information that are not available to the public; analysis, processing and interpretation of information with the purpose of prevision (predictive analysis); analysis of the past performances (retrospective analysis).

At the level of the operators of communitarian services of public utilities the financial-accounting information, in the form of specific data, is obtained from some internal and external sources and serve for the communication inside the organization with some receivers. In order for the accounting information to be useful in the managerial system, it needs to have four main qualitative characteristics: intelligibility, relevance, credibility and compatibility.

The accounting information has the quality of being credible when it doesn't contain significant errors, is not partial, and the users can trust that it represents correctly what it has proposed to represent or what it is expected to represent. In order for the information to represent in a credible way the events and the transactions it is necessary that they are accounted and presented in accordance with their background and the economical reality and not only with their juridical form. The accounting information has to be neutral, without influences and to represent with fidelity the events and the transactions.

2. THE INFORMATION AND ITS CIRCUIT IN THE FINANCIAL ACCOUNTING SYSTEM OF THE OPERATORS OF COMMUNITARIAN SERVICES OF PUBLIC UTILITIES

Before presenting the way of the accounting information from its collecting, processing and until the final users, we have to specify that in Romania the operators of communitarian services of public utilities, in conformity with the law 51/2006 are organized in private companies with state capital, private or mixed, or in the specialty department of the mayor or in the specialty services of the local or county councils. Thus, their management can be direct, in the county or local councils, or delegated by giving their management by public auction to the private companies licensed by ANRSC.

In the context of the contemporary evolutions of the activities of the public utilities services, the development of the market economy, the increase of its complexity determined a correspondent evolution of the economical-financial information. This type of information characterizes the situation of the patrimony of the operators, the results of the economical-financial activity, the way of utilization of

the material and human resources, for its own needs and for the third parties (shareholders, clients, banks, fiscal organs, other physical or juridical persons).

The informational financial-accounting system represents an organized ensemble of complex information that are obtained by processing the data furnished by some sources and that are necessary for organizing, managing and developing the economical activity. The importance of such a system comes from the idea that it assures the knowledge in any moments about the status and functioning of the economical entities in general, offering information about the way in which the resources are used, about the existence of some deficiencies and the need to analyze them. For the operators of communitarian public utilities services the accounting information that can be used in the process of planning and organizing of the activity for the proper management of the specific activities is important and also the information that is useful for adopting or not the decisions regarding the investments of machines or distribution networks.

A problem of the financial-accounting system is given by the set of financial situations that has to be intelligible and transparent although 4 of the 5 components of the financial situations are flooded with information with the form of numbers that can create difficulties in their interpretation from the users that don't have minimum economical knowledge (Morariu, 2008). The resolution is given by the IFAC by explicative notes and accounting politics. It is an economical problem, with deep knowledge for applying IFRS, with professional reasoning of the professional accountant in the art of transforming the numbers in coherent, simple, relevant explanations so that reading these situations by any user could help him make good economical decisions.

In the case of the operators of public services, the decision factors are represented by members of the administration council, in the case of the services organized in the specialty departments of the local councils or of the mayor, are represented by the administrators and shareholders of the private companies that manage the public services. Also the financial-accounting information of these operators is used by the institutions of credit or by the institutions of settlement of the state, as ANRE, ANRSC etc.

Referring to the institutions of settlement of the communitarian public utilities services, we can say that the accounting information is essential in their activity. This fact results from the establishing and approval of the rates of the services accomplished by the operators on the basis of the accountant information. This has to be centralized in the file of foundation and in the structured on elements of expenses, drawn up in conformity with the processed data from the accounting balance and from the profit and losses account from the last three years.

An example regarding the utilization of the information as data furnished by the financial-accounting system of the public utilities services is that of Termo-construct SA Sebis, the operator manages the micro area system of capture, treating and distribution of drinkable water. The managers decided to increase the price of drinkable water after the financial and economical analysis. This decision has to receive the approval of ANRSC in order to be approved by the Local Council.

Regarding this the following situations requested in conformity the present regulations were considered:

Table 1. Foundation list

Specification	M.U.	Value 2009	Value Dec.2009	Value Ian 2010	Value Feb 2010	Total
0	1	2	3	4	5	6
A. Purchased rough water	Thousands of steres	527,68	41,20	39,30	35,60	116,10
B. Delivered water:	Thousands of steres	405,70	32,58	12,78	31,37	76,73
-population	Thousands of steres	272,17	24,01	8,56	23,86	56,43
-other consumers	Thousands of steres	133,53	8,57	4,22	7,51	20,30
-losses of water in the system	% Thousands of steres	30,07%	26,46%	207,52	13,49	51,31
C. Consumed energy	total Mwh	465,59	31,27	35,07	41,68	108,02
D Number of employees	Personal no.	336	23	22	22	67
E. Average revenue/employee	lei	977	834	931	955	905
1. Different expenses:		267,28	18,99	21,89	24,11	64,99
-rough water, quantity price		27,21	2,18	2,13	1,75	6,06
-losses of water in the system		6,52	0,46	1,44	0,38	2,28
-electric energy, quantity price		195,76	13,63	15,73	19,51	48,87
-treating the water		20,36	1,70	1,69	1,60	4,99
-technological materials						
-other specific material expenses 60281		17,43	1,02	0,90	0,87	2,79
2. Fixed expenses of which:		663,35	42,00	40,66	45,36	128,02
a) material expenses:		242,45	17,43	14,50	18,45	50,38
-materials		94,29	3,13	3,64	3,80	10,57
-electric energy, quantity price						
-expenses with environment protection						
-annual attenuation	Thousands of lei	33,51	3	3	3	9
- annual royalty		16,30	2	2	2	6
-reparations in the production					1,99	1,99
-reparations with third parties		5,85				
-studies and researches		4,76	0,91		0,37	1,28
-other services made by third parties:						
-collaborators		0,75	0,45			0,45
-commissions and payments		5,33	0,38	0,28	0,28	0,94
-protocol, advertising, publicity		0,44	0,20			0,20

-telecommunications mail		6,63	0,92	0,54	0,59	2,05
-other material expenses		74,59	6,44	5,04	6,42	17,90
b)expenses with the employees, of which:		420,90	24,57	26,16	26,91	77,64
-salaries		328,32	19,19	20,48	21,02	60,69
-Health Insurance 20,8 %		68,29	4,00	4,26	4,38	12,64
-unemployment benefit 0,5%		1,65	0,10	0,11	0,11	0,32
-FNAS 5,20 %		18,06	1,00	1,07	1,10	3,17
-accidents and professional diseases 0,279 %		0,97	0,06	0,06	0,06	0,18
-CCIASS 0,85 %		2,79	0,17	0,18	0,18	0,53
-guarantee of salary receivable 0,25%		0,82	0,05	0,06	0,06	0,17
-other expenses						
c)Financial expenses						
I. Total expenses (1+2)		930,63	60,99	62,55	69,47	193,01
II. Profit x 10%		93,07	6,10	6,26	6,95	19,31
III. Development quota						
IV. Fund II D						
V. Revenue obtained from production, transport, water distribution (I+II+III+IV)	lei	1.023,70	67,09	68,81	76,42	212,32
VI. Delivered quantity, including consumption	Thousands of steres	405,70				76,73
VII. Unitary price (V:VI)	Lei/stere	2,52				2,76

Table 2. Structure on elements of expenses

Specification	M.U.	In the previous period 2009	Previous foundation		Proposed		
			Total Dec.09 Feb.10	Unitary	Total	Total Increases -lei-	Unitary
0	1	2	3	4	5	6	7
A. Purchased rough water	Thousands of steres	527,68	116,10		545,00	428,90	
B. Delivered water:	Thousands of steres	405,70	76,73		425,00	348,27	
-population	Thousands of steres	272,17	56,43		286,00	229,57	
-other consumers	Thousands of steres	133,53	20,30		139,00	118,70	
-losses of water in the system	% Thousands of steres	30,07%	51,31%		28,24 %		
C. Consumed energy	total Mwh	465,59	108,02		488,00	379,98	
D Number of employees	Personal no.	336	67		340		
E. Average revenue/employee	lei	977	905		1014		
I. Different expenses:		267,28	64,99		280,00	215,01	

-rough water, quantity price		27,21	6,06		29,00	22,94	
-losses of water in the system		6,52	2,28		7,00	4,72	
-electric energy, quantity price		195,76	48,87		200,00	151,13	
-treating the water		20,36	4,99		25,00	20,01	
-technological materials							
-other specific material expenses		17,43	2,79		19,00	16,21	
2. Fixed expenses of which:		663,35	128,02		720,00	591,98	
a) material expenses:		242,45	50,38		279,00	228,62	
-materials		94,29	10,57		99,00	88,43	
-electric energy, quantity price							
-expenses with environment protection					5,00	5,00	
-annual attenuation		33,51	9		34,00	25,00	
- annual royalty		16,30	6		16,30	10,30	
-repairs in the production			1,99		6,00	4,01	
-repairs with third parties		5,85			9,00	9,00	
-studies and researches		4,76	1,28		8,00	6,72	
-other services made by third parties:							
-collaborators		0,75	0,45		5,00	4,55	
-commissions and payments		5,33	0,94		8,00	7,06	
-protocol, advertising, publicity		0,44	0,20		1,00	0,80	
- telecommunications mail		6,63	2,05		7,00	4,95	
-other material expenses		74,59	17,90		80,70	62,80	
b)expenses with the employees, of which:		420,90	77,64		441	363,36	
-salaries		328,32	60,69		345	284,31	
-Health Insurance 20,8 %		68,29	12,64		70	57,36	
-unemployment benefit 0,5 %		1,65	0,32		2	1,68	
-FNAS 5,20 %		18,06	3,17		19	15,83	
-accidents and professional diseases 0,279 %		0,97	0,18		1	0,82	
-CCIASS 0,85 %		2,79	0,53		3	2,47	

-guarantee of salary receivable 0,25%		0,82	0,17		1,00	0,83	
-other service expenses							
c) Financial expenses							
I. Total expenses (1+2)		930,63	193,01		1000	806,99	
II. Profit x 10%		93,07	19,31		100	80,69	
III. Development quota							
IV. Fund II D							
V. Revenue obtained from production, transport, water distribution (I+II+III+IV)	Lei	1.023,7	212,32		1.100	887,68	
VI. Delivered quantity, including consumption	Thousands of steres	405,70	76,73		425	348,27	
VII. Unitary price (V:VI)	Lei/mc	2,52	2,76		2,59		

The price of 2,76 lei/stere is calculated using the data from the last months, which by chance are months in winter, a period when the water consumption is small resulting in larger costs per stere of water produced and distributed. Thus the price for which it will be requested the favourable notice is 2.59 lei/stere.

These two situations presented are analysed by ANRSC together with a technical memoir drawn up by the technical department of the local operator and on the basis of these documents there will be a notice issued by the specialty commission.

We can draw the conclusion thus that the financial-accounting system of the operators of communitarian public utilities services has an essential role in furnishing the informational basis in order to establish the prices depending on the registered costs. The result is the influence on the accomplishing the revenue because a greater price if it is supported by the beneficiaries it leads to a greater business profit at the same quality and quantity of the public services.

3. THE ECONOMIC-FINANCIAL AND PERFORMANCE INDICATORS THAT ARE THE BASIS OF THE APPROVAL OF LICENSE OF OPERATING FOR THE COMMUNITARIAN PUBLIC UTILITIES SERVICES

In conformity with the Decision of the government no. 745/2007, the operators of communitarian public utilities services have to accomplish some technical, financial and of performance requests in order to obtain the operation license. The background of these requests is the processing of the financial-accounting information through some financial and performance indicators (Isac C., et al., 2009). Thus, using the financial situations of juridical persons that request the licence the following financial-economical indicators are calculated: exploitation revenues, results of the exploitation, dues, dues to the consolidated budget, receivables.

Giving as an example Termo-construct S.R.L., this company which tried to increase the price of drinkable water as we have shown before, presented the following

situation in conformity with the annex no. 7 from the Government decision 745/2007 in order to receive the license 3rd class for the cleaning service.

Table 3.

No.	Indicator		Value					
			Year					
			2007		2008		2009	
		I	II	I	II	I	II	
1.	Revenue from exploitation		102.522	104.354	109.412	112.081	177.073	205.296
2.	Result from exploitation	Profit	12.261	5.696	2.852	6.787	10.859	60.882
		Loss						
3.	Dues	Present	17.475	20.010	14.845	17.410	12.320	10.403
		Residual	2.500	1.250	2.540	3.920	—	—
4.	Dues to the budget	Present	15.322	14.350	13.750	15.300	8.423	8.777
		Residual	10.500	11.008	8.755	9.238		
5.	Receivables	Present	65.400	50.301	48.750	58.506	41.826	49.080
		Residual	6.023	8.100	11.003	14.516	22.814	18.512

Beside this situation, ANRSC will analyse the performance indicators for the service for which the license is requested. We mention that the operator develops activities specific to the cleaning service for which it has an expired license and it is requested its renewal. Thus, we have the following indicators:

Table 4. Indicators regarding the financial performance

No.	Denomination of the indicator	Calculation formula	Calculation of indicators	31.12.2009
	PRODUCTIVITY RATE			
1.	Rate of the revenue on the employee revenue	Profit of exploitation x 100	266.635 x 100	51,39
		Capital employee	518.894	
2.	Rate of utilization of the assets	Sold production x 100	1.658.143x100	456,70
		Operational assets	363.074	
3.	Rate of profit	Rough profit x 100	266.635x100	16,07
		Turnover	1.658.781	

B. Indicators regarding the financial capacity of the company, at the date of 31.12.2009

TOTAL OF CIRCULATED ASSETS: 363.074

Of which:

1.1. stocks 14.058
 1.2. receivables 304.078
 1.3. home and bank 44.938

TOTAL OF DUES: 390.245

Of which:

2.1. Sums of money that have to be paid for up to an year: 141.919
 2.2. Sums of money that have to be paid over a year: 248.326

TOTAL OF CAPITAL:	518.894
Of which:	
3.1. Subscribed capital paid	239.011
3.2. Reserves from re-evaluation	70.095
3.3. Reserves	21.679
3.4. Reported losses	- 29.372
3.5. Profit	230.413
3.6. Allocation of profit	-12.932

After analysing these indicators and the accomplishing of the other requests regarding the technical, managerial and economical ability by efficient management of the cleaning service the operating license will be given to the operator.

The purpose of the accounting information in adopting the decisions related to the investment projects that try to improve the quality of the public utilities services and their development in order to increase the number of beneficiaries.

Any project of development has at its base an economical dimension. Although in the field of public utilities services it is tried to accomplish the objective of increasing of the quality and the development, there is the problem of economical and financial profit. Thus, the financial-accounting information has an essential role in quantifying the method of accomplishment of the investment projects and the final profit of them.

Also, the obtaining of the reimbursable or non reimbursable finance respectively from the credit institutions or European funds is accomplished by providing the financial information of solvability of the operator and of financial profit of the project that need financing.

The financial-accounting information has to be made of data that have been processed in a useful form for the receiver and which have a real value for control, planning or decision making in investments.

In the case of requesting the credits in order to cover the needs of financing the investments, the financial creditors are interested in the information that allow them to determine that the loans and the interests will be reimbursed at the time limit. Also, in the case of non-reimbursable sources of financing the economical and financial profit of the project and its contribution to the improvement of the quality of the services accomplished for the beneficiaries has to be proved.

The accounting information will be deliver the data necessary for the periodical evaluation of the accomplishment of the different stages of the investment projects, especially from the point of view of the respecting of the financial criteria and after the implementing they will be used by the management of the project in order to determine the degree in which the financial results and the quality results have been accomplished.

In conclusion, the financial-accounting system, by the information delivered to the management of the operators of public utilities services in order to be used in the decision making process, has a very important place in the management mechanism of any communitarian public utility service, be it as a private company, a specialty apparatus or department in the local or county councils. The financial health of these

operators is the background of the services and has an indirect influence on the quality of the peoples' lives, institutions and economical institutions of a community or region.

This article is a result of the project „Doctoral Programme in Economics at European Knowledge Standards (DOESEC)”. This project is co-funded by the European Social Fund through the Sectorial Operational Programme for Human Resources Development 2007-2013, coordinated by The Bucharest Academy of Economic Studies in partnership with West University of Timisoara.

REFERENCES:

- [1]. **Feleagă, L. (Malciu); Feleagă, N.** (2005) *Financial accounting, a European and International approach*, vol. I, Infomega, Bucharest, p. 60
- [2]. **Greiner, C.** *Systèmes d'information et comptabilité* - ECCA, p. 1120
- [3]. **Isac, C.; Voichița, L.; Guță, A.J.** (2009) *Coordination of Management Activities - A condition Sine Qua Non of a Performance Management*, Annals of the University of Petroșani – Economics, 9(3)
- [4]. **Lucey, T.** (1992) *Management accounting*, D.P. Publications Ltd., London
- [5]. **Minu, M.** (2002) *Accounting as a power instrument*, Economic Publishing House, Bucharest
- [6]. **Morariu, A.** (2008) *IFRS - global accounting norms characterized by quality*, Audit Financiar Magazine, 3, Bucharest
- [7]. **Negescu, M.D.** (2004) *Characteristics of the financial information in the context of contemporary evolution*, Magazine Accounting and management informatics, 9, ASE, Bucharest, p. 147
- [8]. **Oprean, D.; Racovițan, D.M.; Oprean, V.** (1994) *Management informatics*, Eurounion, Oradea, p. 49.
- [9]. **Peres, I.; Mateş, D.** (2009) *Basics of accounting*, Mirton, Timișoara

THE SPLITTING OF LABOUR MARKET AND EMPLOYMENT ENTREPRENEURIAL STRATEGIES

**MARIANA CLAUDIA MUNGIU-PUPĂZAN,
MARIA VASILESCU ***

ABSTRACT: *Internal structure of the labour market has a highly complex character, which enabled the formulation of conclusions as there is no a single scale labour market economy. Inside it is identify different sections. Market segmentation are represented by all splitting techniques of a population database and follow up a groups of components that satisfy a condition of classification, according to the criteria considered. Labour market segmentation is determined both by economic considerations, also the characteristics of the workforce (level of training, qualifications, job mobility) and institutional issues (regulation of employment, level of union organization). As such, there is barriers to transition from one segment to another job mobility occurs mainly within each segment and limited, between different segments, and wages are not the result of market forces free event, being the effect of social factors, institutional policies with specific expression of each labour market segment. Actual labour market segments are highlighted and analyzed by using several criteria: type of ownership, firm size, degree of organization of labour supply, etc.*

KEY WORDS: *labour market; market segmentation; the primary sector; the secondary sector; job mobility; companies' size*

JEL CLASSIFICATION: *O1*

1. INTRODUCTION

The starting point for the theory of labour market segmentation is the admission of existence hypothesis of *dual economic system*, divided into two sectors - **the primary sector** (central) and **secondary sector** (peripheral) of large enterprises for companies subject to competition – between it manifests a relationship of dependency.

* *Lecturer, Ph.D. Student, "Constantin Brâncuși" University of Târgu Jiu, Romania,*
claudia.mungiu@gmail.com

Assist. Prof., Ph.D. Student, "Constantin Brâncuși" University of Târgu Jiu, Romania,
maria_vasilescu1983@yahoo.com

Corresponding economic sectors, there are *specific segments of the labour market*, with "mobility barriers" and specific consequences for employees: a) **the primary labour market**, composed of the commitments offered by large firms and / or unions, and its characteristics can be summarized as: high wages, promotion possibilities and job security; b) **secondary labour market** defined by low paid jobs also unstable, and the existence of discrimination.

In general, *primary labour market segment is associated with stable component of demand for goods and services, while the secondary segment is related mainly to the variable component of demand*. Hence the temporal variation of demand for goods, from quantitative and structural issues, is one of the main drivers of market segmentation. However, segmentation is made in connection with *business size*. With adequate financial resources, large companies can promote broad-based, technology news, better working conditions, job stability. In large enterprises, higher level of syndication, which makes hiring and firing workers subject to certain restrictions. This certifies that here, a large proportion of workers belonging to the primary segment of the labour market and within firms there is a certain segmentation of the workforce.

In United States it has emerged in practice - and are reflected in theory - *three sectors of the economy*, which have specific events in the labour market: a) **the economy of the center**, representing the strongest sectors, including large enterprises, often, monopolistic and oligopolistic hold positions, have high productivity, high profits and high salaries, above the national average; b) **peripheral economy**, which includes small businesses, faced with strong competition - their products incorporate a lot of work, productivity and profits are lower and there is an almost total lack of syndication workers; c) **illegal economy**, lack of regular, including various forms of informal work, without achieving stable forms - and often illegal - with a total uncertainty for employees. Each of these labour market segments operates a specific manner and demonstrates the inequalities that exist between different uses of labour and different categories of employees and emphasize the importance of labour demand of firms that adopt its own strategy.

Labour market segmentation is not limited to employees in large companies, it spreads to the economy level. Segmentation process explanation to macroeconomic level including small businesses, which have an increased capacity to adapt, allowing them to determine the scope of the variable part of the demand for goods and services. However, small firms have a high flexibility of cost and are able to produce parts and accessories at low prices to big companies. In this way, it explains the existence of extensive networks of subcontracting by large firms, thus it provide their products manufacture of important parts. General configuration of the labour market is in fact the result of a balance between the interests of entrepreneurs and labour unions. Therefore, labour market segmentation can not be determined a priori as "good" or "bad." It is assessed only by the interests of both partners and creates a variety of strategies for both employers and for employees. Therefore, the labour market, fuelled by competitive forces, economic behaviour is a different asset, which each party seeks to maximize its utility, based on certain specific situations, but also anticipating future changes in the foreseeable general economic situation.

Entrepreneur strategy – in order to maximize profits and increase flexibility of supply is based largely on labour market segmentation. Employees who possess the highest qualifications and training company which has invested are maintained regardless of changes in business conjuncture. Others are hired and fired depending on the volume of business changes. Thus, some components of labour supply are forced to adapt, rather than other factors of production to market requirements. This occupancy strategy is not exclusive, it shall apply the internal conditions of the company. Usually first try to change the internal organization of business and then adjust the hiring process, dismissal of workers. Consequently, changes occur in the profile of qualifications, working conditions and wages of different categories of workers.

Employment business strategies tend to maintain (or even expansion) of the secondary labour market segment because it provides an increasing adaptability to changes in business conjuncture. This involves using various means, including the specific methods and new forms of wage employment (part-time work, employing workers, etc.) that have multiple objectives (reducing labour shortages, providing jobs, homogeneity staff themselves). Application of *new forms of employment* (atypical forms) is found both new firms and those with a certain tradition and is connected, especially the need for *more flexible labour supply* as required by the process of production. Also, being a flexible way to control labour costs or better workforce, new forms of employment sometimes leads to lower wages or less stable jobs, which means increasing the size of the secondary segment labour market.

2. LABOUR MARKET MECHANISM

Complex process that occurs the relations generated by the sale provisions in the labour market requires a detailed analysis of labour supply and demand. Conducting any activities involve the use of a workload. It is not in its entirety, a demand for the labour market. *General condition that requires work to take shape through payroll application is rewarding them.* Application for employment - or, more precisely, the demand for human services a specific case - is the amount of human effort (for that case) that entrepreneurs are willing to buy at a salary rate corresponding general price level in the period considered. But as the worker effort is inseparable from his person, the labour demand translates into demand for workers able to provide the present case workload required. It should be borne in mind that a number of workers is not a fixed quantity of work and a clear case determined. Numerically equal groups of workers may have a different structure in terms of age, sex, force, intelligence, technical ability and therefore may be able to provide some more work than others.

Knowledge of labour demand is more difficult than the demand for knowledge. *Labour demand is derived demand, it depends on the demand for goods, and not an independent application.* Demand for labour is directed by supply and demand of goods suffering it influence. The demand for goods is transmitted through labour demand and the curve is quite sensitive. Labour demand reflects not only the influence of wage rates that workers receive, but also many other causes, which do undergo change as temporary, transient, and sustainable change in the degree of persistence of

cases. Examples quote the seasonal labour changes to large numbers of industries, areas subject to intermittent controls and fluctuations during periods of boom and depression of each economic cycle. Sustainable changes are related to changes in consumer preferences for a product, opening or closing an outlet abroad, the application of restrictive customs procedure (or liberated) exchanges etc.

It is considered that the *factors* on which the depend application for employment are: *marginal productivity of labour, general business conditions*, including predictions and forecasts the size of cyclical global demand. Satisfying the need for work is performed on behalf of the existing *resources* in society that the workload can be made during that period, age population. Not all labour resources existing are related to work offer. Job offers - namely, human services of some sort - is the amount of work, the same qualifications that workers are able and willing to provide a certain wage rate, given the general price level during the period. Human efforts are merchandise that is not separate from workers person human and offer service workers of some sort is present on the labour market as workers. It is defined by the number of workers able and willing to provide work for a particular category of firms in terms of wage and price level prevailing.

Offer employment to workers of a given case is *not homogeneous*. Workers of the same items do not have a capacity equal to the effort, not all the same age, physical force, equal health status, professional skills, intellectual and moral qualities. Job offer - as expressed by the number of workers - has a number of *features* compared with normal supply of goods, namely:

- *Workers have relatively low and professional space mobility*. People are attached to economic and social environment in which they arise, even if they have fewer economic advantages. Job offer depends on where work is provided by age, gender, health, etc. - Items that are not expressed by quantity-price curve.
- *The salary is not the only factor determining workers to offer their services to companies*. The sellers of a common commodity are not interested with the destination that will take it to the buyer. Rather, workers are concerned not only agreed to pay, but the conditions under which work is carried out and those who must live.
- *Human services are essentially perishable, ephemeral, can not preserve, to take advantage of a further increase their selling price, thus offering a solid character, a given size at a time*. A worker may refrain from work or more workers may be assigned to it by declaring a strike, but an unused day's work can no longer recover. Production and wages, which could get within a length of time used, is a permanent loss.
- *Daily offer of employment has, in good measure a compulsory character*. Bearer supply means of subsistence needs, when personal resources are depleted strike fund, he is forced to accept a lower salary.
- *Offer of employment is not undertaken exclusively on market economy principles*. Younger generations are not grown by their parents as some goods/merchandises or to sell services as employees. Not simply the desire to recover costs and realize the benefits is the principle governing the employees of a particular case. In this area, with economic laws, act also the demographic laws.

All these features allow to conclude after the offer of employment *is less sensitive to economic factors. In ratio to the price, it has a low elasticity.* The labour market has experienced over time changes. In recent decades, it is characterized by two new phenomena: the group of workers to form trade unions and employers' organizations; the intervention of public powers in regulating the relationship between management and labour market. Consequently, the labour market has become a progressively privileged field of action for union workers and employers' associations and a major area of state intervention.

3. UNION PHENOMENON AND DETERMINE WAGE RATES

Labour market has institutionalized due to union phenomenon and state intervention. Individual employment with labour contract of employment between employer and employees are increasingly substituted by collective agreements or contracts, determining labour, often under the control and supervision of public power. State itself issued a series of regulations concerning working conditions and performance issues of wages. It is a fact that unions, by grouping workers have limited weaknesses, resulting from the dispersion and isolation in the power of employers. Unions have power and influence, no longer appealed to developed countries. In all countries, the number of workers enrolled in unions has increased. Central or confederations were created internationally. *The union is working as a labour vendor, which will supersede a large number of independent and isolated workers.* Offered workload is not a function solely of salary rate. Union can influence this rate, altering job offer. It depends on union objectives, which - to some extent - are determined outside the individual preferences of workers who make up the group. Unions - when they become a "power" - have the necessary capacity to play an important role in the labour market and are able to operate tactics to increase wages.

Contemporary labour market, by its structure, has ceased to be competitive. Economic and social legislation is dominated by possibility of strike, the conciliation and arbitration procedures for implementation of collective agreements. *New labour market structure is also found in different types of imperfect market.* In terms of labour demand there are monopsony and oligopoly and in terms of supply are union monopolies which have developed the institution of collective bargaining.

When we refer to imperfect markets, the essential problem is that traditional analysis remains essentially an extension of the principles of marginal productivity theory. Comparing salaries and the level at which it is engaged in a labour market with perfect competition to one with imperfect competition, we can draw conclusions on the welfare implications for certain types of market.

Employment policy of a monopolist seeking to maximize the turnover.

Monopolistic firm faces a decreasing demand curve for the good it produces. This means that if the monopolist commits additional manpower, he will have to lower the property price to sell additional production.

Employment policy in case of monopsony. It is considered the monopsony case which sells the finished product to a market with perfect competition. Monopsony is the only buyer of labour in a market and, unlike a monopoly or a firm acting in a

market with perfect competition, is able to influence wages (price) and purchased workload. Equilibrium level at which the monopsony firm is committed is influenced by the marginal cost of labour and the marginal income of employment factor.

Marginal cost of labour monopsonist has two components. First, as a monopsony firm may acquire additional work that offers a higher salary. Then, assuming that all workers receive the same salary, any salary increase offered to purchase an additional amount to be paid also the existing workforce. Therefore, the marginal cost exceeds average cost of labour.

4. BATTLE WAGE AND ARBITRATION SALARY

In times of collective stress, when on the labour market are two powerful groups, union and employers, the determined salary is the battle salary or strategy wage (Figure 1).

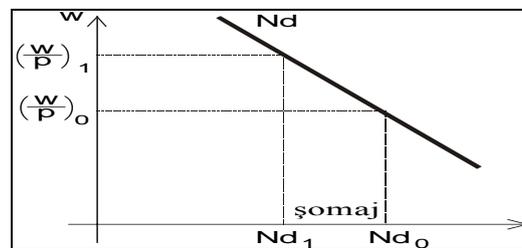


Figure 1. Determine the wage size

Typically, the union asked that the current number of workers used, Nd_0 be paid with wage rate w . Employers answer is: at this price, you can use only Nd_1 workers, which means that the difference between Nd_1 and Nd_0 will become unemployed. In such case, it is not classic game of supply and demand curves work. But you know that wages are set at a level between w_0 and w_1 using one of the following methods: *the arbitration process* - involves the intervention of a mediator between the parties, who will try "to say" which is appropriate wage rate; the mediator should be responsible and independently of all the warring parties; *the process of the fight* - alary is determined by successive approximations, depending on the will and resilience of the two combatants; if the two groups - unions and employers - are equal as forces, the wage is set at middle range w_0 and w_1 ; if the union is stronger than employers, wages are set close to w_1 .

Hicks's theory emphasizes how the wage rate is determined when triggering a labour dispute. She starts to consider two special curves faced: *curve concessions* they are willing to make patrons (A) and *time trade union resistance curve* (C). As supply and demand curves, they are of potential type, forward or psychological. However, instead of quantities and prices, they associate a salary rate declared by a strike length. Once the strike begins as an expression of a request for waiver of wages, employers is willing to pay a charge represented by A . Obviously, it does not satisfy the strikers (figure 2). As the strike is prolonged, the agreed wage curve rises slowly. Entrepreneurs prefer to grow a certain extent, wages, only to prolong the strike.

Concession who did employer are not unlimited. There is a wage rate B which patrons can not overcome, whatever the duration of labour disputes. It corresponds to the level that makes the profit is zero. Above that level losses appear and better company closes factory, only to yield to pressure employees Employers concessions concrete form of the curve depends on several factors such as: the state treasury company, state of understanding or competition between employers, economic circumstances etc. Union resistance curve is placed backwards in relation to that which describes the behaviour of patronage. At the beginning of the strike, workers expressed their maximum demand, that wage rate, C . As the strike is prolonged and not get satisfaction, we have to reduce demand, which is reflected in the evolution of specific curve. On this, one can be seen several segments: in the first period, the union gives up relatively easy part of the demand curve behaviour and decreases rapidly (C-M); during the second period, which is quite long, the curve remains substantially horizontal (M-N) - is line resistance, which seems absolutely necessary to express the wage; whether the duration of resistance is not effective, ending a strike which could result in the acceptance of new slaughter, hitherto regarded as impossible, and a final portion of the curve known, the trend of verticality, (N-P).

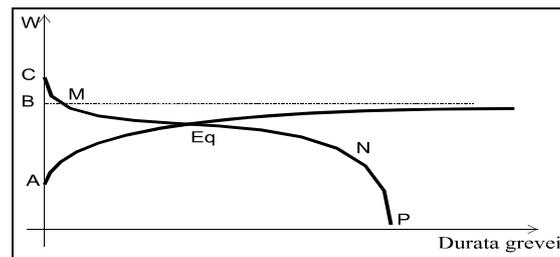


Figure 2. Determine the wage through the battle method

Struggling behaviour of the two curves, considered as legitimate, make clear the balance *point of collective conflict*. As in classical theory, this is the point of intersection (Eq) of the two curves. Shape and strength curves of reaction makes it clear that wage rate is likely to be set at a high or low, depending on the strength of the warring groups. Obviously, the analysis undertaken by the two curves is a process of scientific knowledge, not a practical means of determining wages. Salary resulting from a monopolistic structure, of confrontation type is in fact a manifestation of weakness - each make a prediction on the ability to possess other resistance. This salary, which does not result from rational knowledge to economic opportunities, presents a risk. Obtained by force or by intimidation, a salary may also trigger complex economic processes which, out of control, leads to a certain size of unemployment and a rise in costs, which blocks further production.

5. CONCLUSIONS

Labour market does not make exceptions to the general rule by which a market is in equilibrium when labour demand equals labour supply. Successive increases of

used work have increasingly less productive results. Decreasing marginal product of labour is determined by the fact that work continuously increasing, other factors are constant, and each worker uses a smaller amount of capital and becomes less productive. Increasing the amount of work increases production but this increase is lower. Firms sell their output at price p (decided by the market) and pay workers wages w , which is considered to be the only cost. They undertake work as necessary to obtain maximum profit.

If the total profit represents the difference between revenue and total costs, the profit is the maximum for a number of workers used, implying that to have maximum profit should be **equality between the marginal product of labour and real wage (marginal cost of work)**. As the marginal product of labour decreases with the amount of labour used, the increasing use is possible only when its cost falls (real wages). Job offer are related to the workers which maximize their utility by choosing between income and leisure time. For workers, the *effect of substitution* occurs first. Individual is determined to work harder, to consume less leisure as the wage, price of giving up leisure time increased. But, since wage growth makes the richest individual, it appears the *effect of income* - the individual is determined to require more spare time.

Labour market equilibrium is obtained when real wages are at levels that labour demand equals labour supply in a number of employees. At a higher real wage, there is **excess labour supply** (unemployment), while a lower real wages, there is **excess demand for labour**. *In the first case*, the number of workers who wish to work in those conditions to pay is higher then the number of jobs offered by companies for the same level of salary. *In the second case*, firms require a greater number of jobs than the amount of work provided by workers at the same level of real wages.

REFERENCES:

- [1]. Băbăiță, I.; Silași, G.; Duță, A.; Imbrescu, I. (2003) *Macroeconomie*, Editura Mirton Timișoara
- [2]. Barro, R.J. (1993) *Macroeconomics*, Fourth Edition, John Willy & Sons, Inc. N. Y.
- [3]. Dobrescu, E.; Postolache, T. (1990) *Consemnări economice*, Editura Academiei Române, București
- [4]. Dobrotă, N. (1999) *Dictionar de economie*, Ed.Economică, București
- [5]. Dornbush, R.; Fisher, S.; Startz, R. (2007) *Macroeconomie*, Editura Economică, București
- [6]. Enache, E.C. (2009) *Politică bugetară și creștere economică*, Editura Universității de Vest, Timișoara
- [7]. Iancu, A. (coord.) (2003) *Dezvoltarea economică a României : vol. 1. Competitivitatea și integrarea în Uniunea Europeană*. București: Editura Academiei Române
- [8]. Pociovălișteanu, D.M. (2008) *Teorie economică generală. Elemente de macroeconomie*, Editura Universitaria, Craiova
- [9]. Silași, G.; Sirghi, N. (2005) *Macroeconomia în fișe*, Editura Mirton, Timișoara
- [10]. UVT, FEAA, Catedra de Economie (2006) *Macroeconomie-note de curs*, Editura Universității de Vest

THE CONNECTION BETWEEN MANAGEMENT AND TECHNOLOGY AND THE TECHNOLOGICAL MANAGEMENT

RAREȘ MUNTEANU *

ABSTRACT: *In a new approach, the technology is taken into consideration as a resource of the business, in addition to the four traditional resources: material resources, financial resources, human resources and informational resources. This makes important for the managers to have solid technological knowledge, in addition to the economics. The research regarding the technological management (or the management of technology - MOT) is lead by IAMOT (International Association in Management of Technology). There are a lot of connections between the technology on one side and the finances, the human resources, the marketing, the operational management on the other side. In our era the technology is more and more advanced and all the activities are strongly connected to it.*

KEY WORDS: *technological management; resources of a business; technological system, technology; organisational behaviour*

JEL CLASSIFICATION: *O33*

1. THE TECHNOLOGY IN THE FIRM AND THE TECHNOLOGICAL MANAGEMENT

The members of IAMOT (International Association in Management of Technology) have tried to clarify some concepts that become professional working instruments for the management and the educational systems for management. The professor Jean-Jacques Chanaron together with his colleagues, professor Dominique Jolly and professor Klas Soderquis from the ESC Group from Grenoble have offered an pertinent analysis of the way that the technology has a high impact on all the functions of the management (Chanaron&al, 2002). This impact is the reason to be for the technological management.

* Lecturer, Ph.D., University of Petroșani, Romania, rares73@yahoo.de

The technological management is defined as the implication and the commitment of the technology for a corroborated, simultaneous action in all the functions of a firm. The moment we accept this concept, we must accept that the technology is an important resource and has a high impact on all the functions of management. The technological management implies that any function of management will use the technology and that the technology must be taken into consideration as an input, a resource at the strategic as well as at the operational level. In this context, the technology has as the objective to be coherent and compatible with all the activities of the departments in the short run as well as in the long run and to increase the performance according to the objectives of the firm.

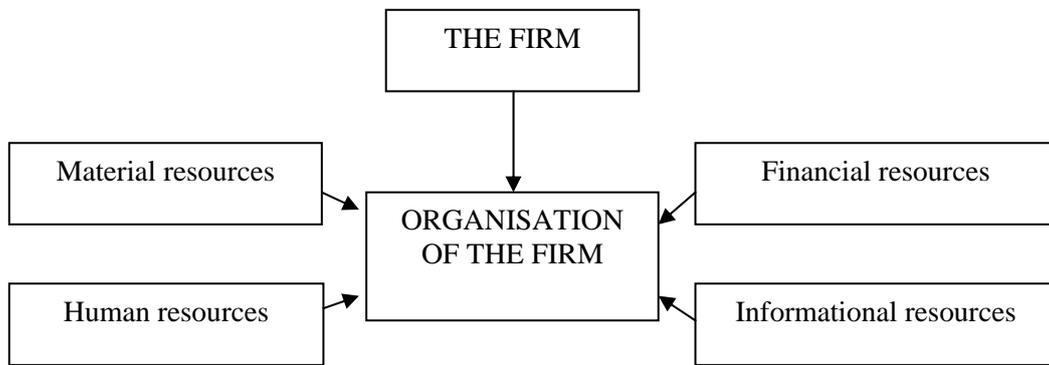


Figure 1. The resources of a firm in the classical approach

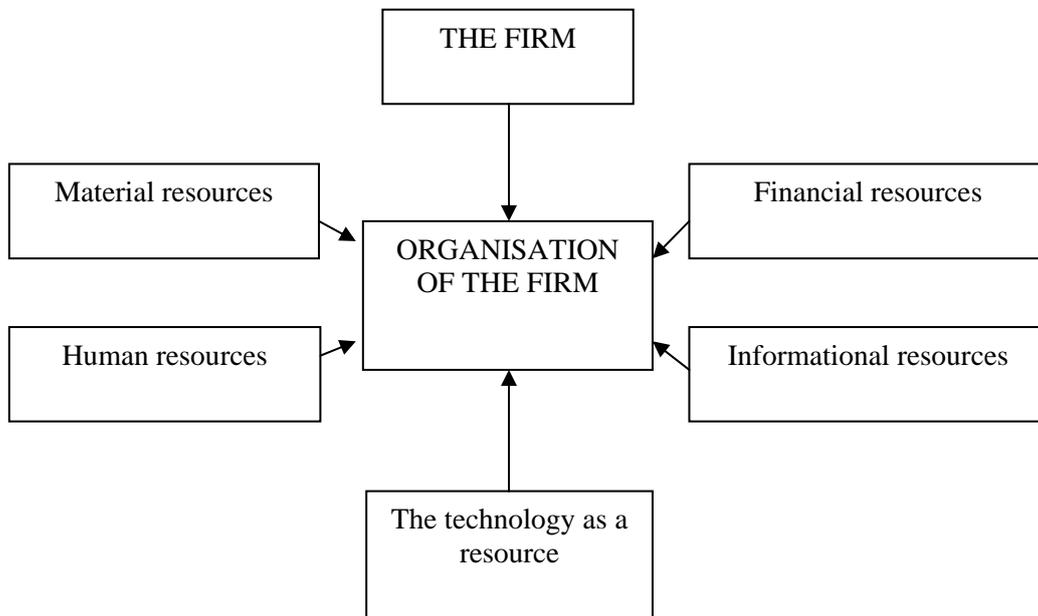


Figure 2. The resources of a business in a new, modern approach

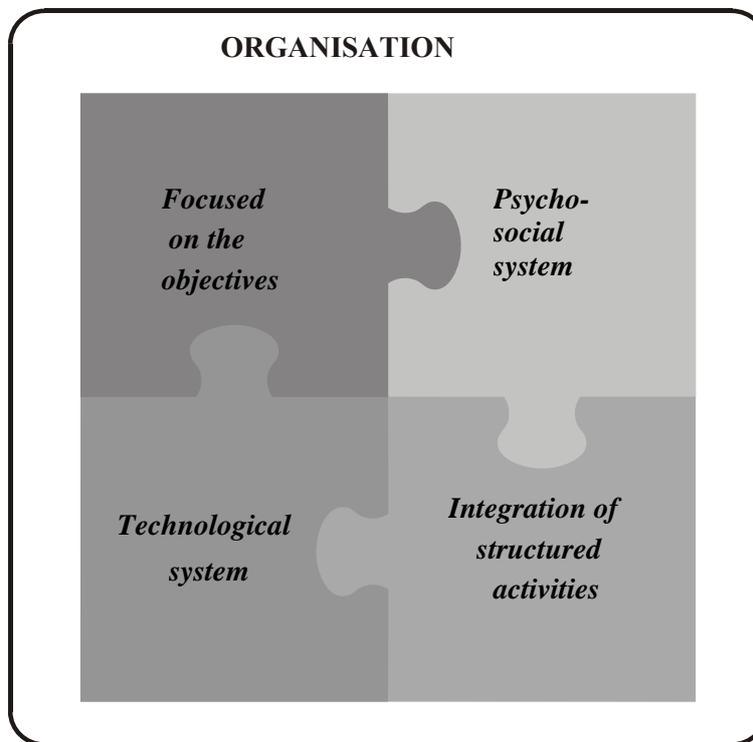


Figure 3. The relations of interdependence within the organisation (Abrudan&al, 2002)

There are more approaches of the term *technology*, depending on the area of knowledge where the definition is made.

The economists approach the technology from the point of view of the productivity and the utility. This means it is focused on the output from an economic system.

The sociologists approach the technology as a phenomenon that causes relations between people, welfare, creates opportunities, expectations and threats to the society.

The engineers and the system design experts associate the technology with the skills, facilities, methods and tools which allow the ideas to become usefull products, processes and systems.

A body of knowledge is a technology only if:

- it is compatible with the science and controllable by the scientific method and
- it can be used in order to control, transform and create natural or social things or processes, with a practical, useful purpose.

2. A CREDO FOR THE MANAGEMENT OF TECHNOLOGY

The IAMOT (International Association in Management of Technology) suggested a *credo* for the management of technology, as follows:

- Technology is a large and growing part of every manager's daily experience. Managers develop technology, use technology, buy technology and sell technology. To provide the necessary skill base in this area, it is appropriate that educators develop a field of teaching and research that we may call management of technology (MOT). The term management is broadly used to include the work of corporations, not-for-profit institutions and public bodies.
- Academic programs should offer three components: (i) The first component is the accepted range of management specialties such as the corporate functions of marketing, operations, MIS, and finance, as well as overall strategy. (ii) The second component is knowledge of technology itself and of technology related management procedures. Topics would include: A core theory of technology, technology foresight and forecasting, emerging technologies, innovation management, project management, science and technology policy, and many more. The second component distinguishes MOT programs from general management programs. (iii) The third component covers the contextual setting of MOT. It stresses the more holistic view and addresses topics of ethics, environment, evolution, macro-economics and politics. In the further evolution of the field, Program Directors will work towards an integration of the various components and possibly towards a new theory of innovation driven enterprise.
- A core theory could include such basic concepts as: (i) A definition of technology and a description of its manifestations. (ii) The anatomy of technology - diagnosing unique features of a given technology. (iii) The taxonomy of technology - systems of classification. (iv) The evolution of technology - major trends in technology and how to track them. (v) The ecology of technology - the interaction of technology with other systems.
- MOT programs should address technology at an operational, at a strategic and at a policy level. The operational level focuses on the internal technology base of the organization. The strategic level includes mapping the future, external, technological landscape; identifying technology based opportunities, and aligning overall strategy to harvest these opportunities. Foresight is a key ingredient. The policy level addresses the interaction between MOT and national and international policy.
- To contribute to MOT as a profession, we need to work towards (i) a community of practitioners, (ii) a body of knowledge, and (iii) the clearer positioning of the field in the mind of the public (The body of knowledge would reflect the academic program as mentioned in 2.).

Background: Management of Technology (MOT) is a highly diversified activity. This observation is borne out by a recent census of 148 academic programs. (A further 121 programs were identified, but details about them were not available.) [Source: Kocaoglu, D.F., Sarihan, H.I., Sudrajat, I., and Hernandez, I.P., 2003, "Educational Trends in Engineering and Technology Management", in Kocaoglu, D.F., Anderson, T.R. et al, Editors; Technology Management for Reshaping the World, IEEE, Piscataway, NJ, pp.153 - 159]

Titles of academic programs vary. Examples include: Management of Technology (or Technology Management); Engineering Management, Engineering and Technology Management; MBA Management of Technology; Systems Engineering Management; and others. Program contents vary significantly, and are made up from a variety of courses. About thirty courses were identified, and there are many more. Professional affiliations vary - about twenty associations were identified. In addition to dedicated programs, aspects of MOT are taught as individual courses in other programs as well.

Given this diversity, a group of academics and professionals launched an initiative in 2001 to find common ground for MOT. The starting point was a debate on the joint Network: Management of Innovation and New Technology (MINT)/Technology and Innovation Management (TIM). This was supplemented by comments on the Network of the International Association for the Management of Technology (IAMOT). This debate led to the formulation of A Credo for MOT. Network participants commented on the Credo and a second version was formulated. In 2003 the second version was discussed on panels during the Twelfth International Conference of the International Association for Management of Technology (IAMOT) in Nancy, France; and the 2003 Portland International Conference on the Management of Engineering and Technology (PICMET), Portland, Oregon, USA. In the light of these discussions a third version of the Credo has now been formulated.

3. THE TECHNOLOGY AND OTHER DISCIPLINES

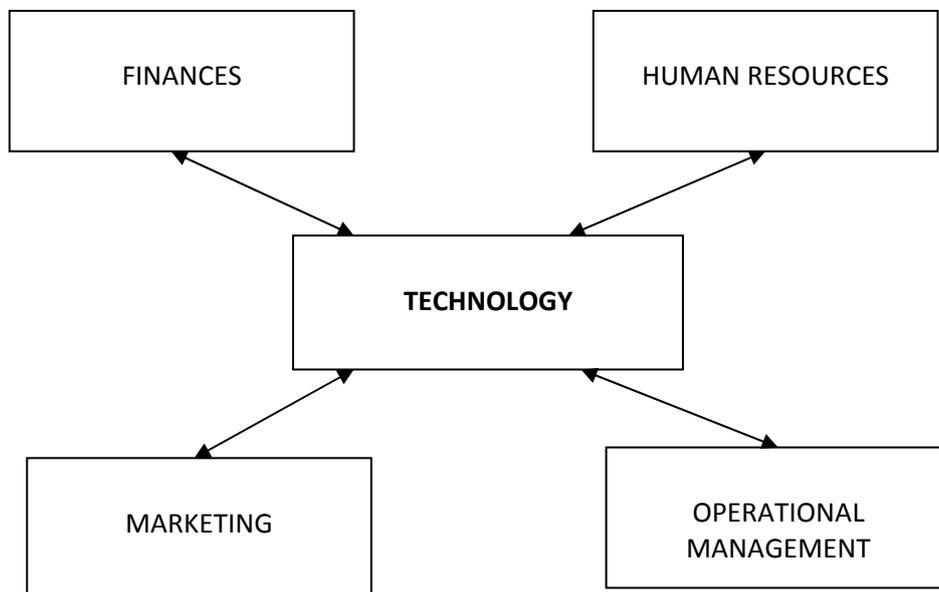


Figure 4. The technology and other disciplines

3.1. The technology and the finances

The financing technology involves:

- the technology of information and communication in finances;
- the decision theory for financial estimations;
- financing schemes;
- financing the research, development and innovations;
- financial fusions and acquisitions in the high tech industries;
- credit cards.

In other words, finances sustain the technology and the technology sustains the finances. There is technology in the finance activity, as there is in any other domain, because technology means the body of methods, processes, operations applied on raw materials *as well as on the data*.

3.2. The technology and the human resource

The human resources management (HRM) and the organisational behaviour in the high technologised firms (Chanaron&al, 2005) are connected with the technology due to the fact that in these companies there are scientists, researchers, engineers, technical staff and the HRM must adapt to their specificity.

The use of the technology for the HRM and the organisational behaviour regards the Enterprise Resource Planning (ERP), the performance monitoring systems etc. These systems give the impression of a rational leading of the employees, but can omit the subjective aspects.

The impact of the technology on the performance of the employees - the new technologies can have a huge impact on the working environment and on the working place. The mechanisation, the automation and the computerisation have a high impact on the individuals and on the organisations.

3.3. The technology and the marketing

The technological content of a product has a significant impact on the marketing methods. It is very important to approach simultaneously the market and the evolution of the technology and the marketing staff of the high tech companies must have a lot of specific knowledge.

The study of the behaviour of the client using the new technologies has a fast expansion. Some of the most provocative topics are (Chanaron, et al., 2005):

- the impact of the e-commerce on the traditional selling personnel;
- the internet as a threat to the traditional commerce networks;
- the future of the traditional distribution networks;
- the use of the technology to enrich the products, the services and the delivery.

3.4. The technology and the operational management

The operational management is closely related to some essential factors of the competitive strategy of a company, such as: productivity, quality, cost, effective time and flexibility. In the global environment we live nowadays, these are important factors for any firm producing goods or services and the research carried out to enhance the performances is using the technology in various ways.

Areas of special interest are:

- introducing new technologies in the production processes, related to the production systems design;
- the increase of the use of the informational technology in the operations of the production system (simulating processes, optimisation of the technological regime etc.)

4. THE TECHNOLOGY DIFFUSION

Another aspect of the technology in connection with the management is the technology diffusion, meaning to benefit from new developed technologies and/or new products based on the copyright.

Once issued on the market, a product can be developed in order to be produced easier or to make it more efficient and safe. This makes the difference between the invention - the original conception - and the innovation - the development and change of an existing product.

Another stage in the life of a product is the diffusion. According to Rogers (Rogers, 2003) the diffusion is the process by which an innovation is communicated by certain means to the members of a social system.

The four stages of the innovation process are:

- the invention,
- the innovation,
- the design,
- the diffusion (see fig. 5).

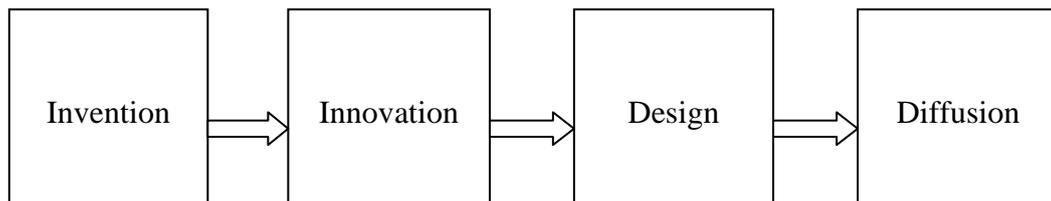


Figure 5. The succession of the stages within the innovation process

The idea of *adequate* technology was developed in the 20th century in order to describe those situations in which the use of the very new technologies or of the technologies requiring access to central infrastructures, spare parts or abilities imported from elsewhere was not desired.

The movement of the ecovillage has evolved partly due to these preoccupations. The semi advanced technology, mostly in an economic approach, refers to the compromise between the top and expansive technologies of the developed countries and the technologies of the developing countries which are more efficient in order to harmonise the surplus of labour with the shortage of financial resources. Generally speaking, an adequate technology can be an semi advanced one.

5. CONCLUSIONS

As we can see, the technology is involved without doubt in the functions of the firm as well as in the functions of the management. This determines the two main directions of approach for the technology by the science of management:

- the technological management as an activity;
- the technological management as a resource.

It is obvious that the technology is deeply involved in the management. All the great successful businesses have been fundamentally based on technology.

REFERENCES:

- [1]. **Bayraktar, B.A.** (1990) *On the concepts of technology and management of technology*, in: Khalil, T.M. and Bayraktar, B.A. (Eds), *Management of Technology II*, Proceedings of the 2nd International Conference on Management of Technology, 28 February - 2 March, Miami, Florida, USA
- [2]. **Chanaron, J.J.; Dominique, J.; Soderquist, K.** (2002) *Technological management: a tentative research agenda*. *International Journal of Technology Management*, 23(6), pp.618-629
- [3]. **Cory, J.P.** (1988) *The Process, and Technology Management*. In: *International Journal of Technology Management*
- [4]. **Gregory, M.J.** (1995) *Technology Management : a process approach*. Proceedings of the Institution of Mechanical Engineers, 209
- [5]. **Lobonțiu, M.; Big, R.; Cotetiu, R.; Ungureanu, N.** (2007) *Inovarea sursă de dezvoltare antreprenorială. Inovare tehnologică* EMI
- [6]. **Lobonțiu, M.; Big, R.; Lobonțiu, G.; Cotetiu, R.; Ungureanu, N.** (2008) *Difuzia tehnologică. De la inovare la transferul și difuzia tehnologiei*, EDT
- [7]. **Tavares, R.; Avila-Merino, A.** (2008) *Technology management. Training Manual*, ICS UNIDO, Trieste

CENTRAL BANK INDEPENDENCY ON THE DEVELOPMENT OF THE FINANCIAL SECTOR. A CASE OF RESERVE BANK OF ZIMBABWE (1998-2008)

KOSMAS NJANIKE*

ABSTRACT: *The study looks deeper in the relationship between central bank independence and Gross Domestic product growth and other economic variables which are indicative of improved performance with specific reference to a developing economy. It seeks to find out how the central bank policies affected the state of development of the financial sector and the extent to which the banking sector influenced economic development in the economy. The research also aims to find out how the government affected or influenced the state of development of the financial sector in the country. It was found that the government was sorely dependent on central bank financing as a matter of survival due to limited sources of finance as GDP decline meant a reduction tax revenue base. Rising inflation and contracting real incomes put pressure on the fiscal budget. Questionnaires, interviews and document review were used to obtain information for the study. It was concluded that the cohesion between fiscal and monetary policy is of paramount importance; and there was need for a high degree of formal instrument independence.*

KEY WORDS: *Central Bank Independence; Reserve Bank of Zimbabwe*

1. INTRODUCTION

The issue of central bank independence has generated considerable debate all over the world in recent years. Since attaining independence in 1980, the Reserve bank of Zimbabwe (RBZ) 's policies were designed, approved and implemented with government control as evidenced by the appointment of the central bank Governor by the state President. It was also evidenced by the existence of the laws and statutes which explain the operations of the central bank in the Zimbabwean constitution. Varying degrees of successes and failures of these policies under government control and influence have been realized. At the helm of its economic woes, the Zimbabwean economy had inflation at more than 300 000% as at 31 March 2008, interest rates

* Lecturer in Business Studies at Bindura University, Zimbabwe, kosmasnjanike@gmail.com

above 350%, unemployment estimated at more than 85% and fiscal deficits being the order of the day in the economy (CSO, 2008).

In line with these challenges besetting the economy, the RBZ made frantic efforts to come up with policies that not only aimed at reducing these unbearable levels of these variables, but to stabilize them with considerable increases in output. However, given that failure has been witnessed with central bank policies under government control and empirical evidence shows that elsewhere, economic recovery and improved performance has been attained through the granting of independence to central banks.

The general objective of each and every central banker across the globe, according to Summers (1991) is to minimize a weighted sum of inflation and output variability. In recent years, many countries, especially those in the European Union Trading Bloc, have made progress towards removing their central banks from government control. Considerable economic recoveries and improvements have been witnessed in various countries as a result of central bank independence. Given that the post World War II star economic performers, Germany and Switzerland, have independent central banks and the legendary Argentinean economic recovery of 1989-1995 (Welch and William, 1999) being attributed to central bank independence questions can be raised as to the state of affairs in Zimbabwe economy.

When a new Governor of the RBZ was appointed in 2003 some considerable improvements in economic performance were realized, notably reduction in the inflation rate, currency stabilization coupled with improved foreign exchange inflows as well as increased output. The inflation rate recorded a decline of a magnitude of more than 300%, from 613.9% in December 2003 to 265% in October 2004 (Zimbabwe Independent, 2005). This trend did not however persist for long as an upward surge of the variable resumed by 2004 year end due to lack of harmony between the monetary (RBZ) policies and fiscal (government) objectives. The increase in money supply by printing of money to finance public sector wage bill which promoted liquidity conditions in the economy (Financial Gazette, 2004) pushed prices (inflation) upwards. Dykes and Michael (1989) argued that sound economic policies need to be separated from politically biased policies. Government interference or interjection may have caused the RBZ to fail to turn the fortunes of the country and bring back the economic days of glory. The central bank has to come up with policies that promote sound economic performance in Zimbabwe hence the need for an independent central bank for improved economic performance in the country. This research aims at evaluating the effectiveness of central bank independence on sound policy formulation and implementation for sustained economic performance in Zimbabwe.

In line with these developments, many questions have been asked in regard to the essence of an independent central bank and for the purpose of this study, the following research questions seek answers:

- a) How has the central bank policies affected the state of development of the financial sector?
- b) To what extent did the role of RBZ or developments in the banking sector influence economic development?

- c) How did the government affect or influence the state of development of the financial sector in the country?

2. METHODOLOGY

In order to make a detailed and effective research the study focused on commercial banks registered in Zimbabwe under the Banking Act Chapter 24:02 and the Reserve Bank of Zimbabwe as the regulatory authority responsible for banking licensing, supervision and surveillance as enshrined in the Reserve Bank Act. Since the study is aiming at evaluating the effectiveness of central bank independence on economic performance, the researcher targeted those individuals who were well-acquainted with the operations of the central bank, monetary policy and economic variables' movements. A total of fifteen (15) officials were chosen to complete questionnaires. Using judgmental sampling method 3 officials from the Bank Surveillance and 3 from the Economic Research of RBZ completed questionnaires. Nine (9) economists from different commercial banks also completed questionnaires. A total of four personal interviews with independent financial analysts were also carried. In gathering secondary data, the researcher had to go through already existing records, statistics and other publications.

3. LITERATURE REVIEW

Central bank independence leads to improved economic performance, firstly by ensuring a low inflation environment which is attractive to investment and then by increasing output through increased production as a result of improved investments (Dunne, 1985). The Reserve Bank Act Chapter 20:20 Section 1 gives the Reserve Bank Board the power to determine the bank's and country's monetary policy and take the necessary action to implement policy changes. Dunne postulated that monetary policy needs to be conducted in an open and forward looking way because policy adjustments affect economic activity and inflation. With clearly defined inflation objectives, it is important that the central bank report on how it sees the developments in the economy, currently and in prospect, affecting expected inflation outcomes and the real economy (Hoskins, 1991).

The consideration point to the need for effective central bank independence coupled with transparency and accountability arrangements for sound economic policy formulation and implementation which aids overall economic performance in the country. Literature shows that most of the arguments of central bank independence as an economic activity stimulus revolves around ability to maintain low inflation levels in the country followed by a cumulative causation effect on other economic variables which will then have a direct positive impact on economic performance. This therefore gives us the direction as to where central bank independence must derive the economy towards but the issue is how effective is it as an economic stimulus strategy in third world countries.

3.1. Central Bank Independence and Monetary Policy

The Oxford Advanced Learners Dictionary defines independence as being free from the influence, guidance or control of another or others. As applied to central banks, this translates into being free from the influence, guidance or control of the rest of the government, meaning both the executive and legislative branches of the central government in the formulation and implementation of monetary policy.

A study by Grilli *et al* (1991) revealed that central bank independence exist in the following two forms.

- i) Goal independence: Where the central bank is free to set the final objectives for monetary policy.
- ii) Instrument independence: Where the central bank is free to choose the settings for its instruments in order to pursue its ultimate objectives.

Independence to central banks, according to Pauls (1990), gives them flexibility in the formulation and implementation of monetary policy for the attainment of the said economic variables without crossing lines with government political objectives, thereby enhancing the economic performance of the country. This means if independent central banks formulate and implement policies with the sole aim of long term economic development of the country, regardless of short term costs, whereas if they are under the control of the government, they may end up implementing policies for short term political gains of the government regardless of long term cost associated with these policies. McNees (1993) defined monetary policy as the central banks' process of managing money supply to achieve specific goals such as constraining inflation, maintaining an exchange rate and achieving full employment of economic growth.

Feinman (1993) argues that with central bank goal and instrument independence; these objectives allow the central bank to focus on price stability while taking into account the implications of monetary policy on economic activity and therefore, employment in the short term. Price stability is a crucial pre-condition for sustained growth in economic activity and employment, which is a desirable condition for all economies across the globe. Johnson (1990) concur with these arguments by revealing that the general objectives of all central banks are best attained in a situation where goal and instrument independence prevails than under any other condition. This will be a source of economic growth as independence is an ingredient of sound economic policy implementation by the central bank for improved economic performance. The granting of independence to the central bank enables the government to make suggestions, rather than giving directives on the operations and objectives of the central bank and this gives the central bank flexibility in policy formulation and implementation for the betterment of the economy instead of government's political benefits (Meulendyke, 1992).

Most central banks have specific legislative mandates and therefore do not have goal independence (Baer and Sue, 1986). Thus the 'independence' of 'independent' central banks is instrument independence under which the central bank has authority to choose settings for its instruments in order to pursue the objectives mandated by the legislature, without seeking permission from, or being over turned by

either the executive or the legislature. Countries vary considerably in the specificity of the mandated goals and hence in the degree of discretion of central banks in the conduct of monetary policy.

3.2. Sources of Central Bank Independence

Central bank independence is in part the result of formal institutional features typically incorporated in the legislation creating and defining the central bank. According to Cukierman (1992), the legislation creating an “independent” central bank or in many cases revisions to such legislation, often entirely takes away goal independence by mandating objectives for monetary policy, but otherwise sets up a structure that confers and protects instrument independence. The most important requirement for instrument independence is that the central bank be the final authority on monetary policy. The freedom of instrument choice therefore gives the central bank the discretion to choose a monetary policy tool which is best suited to the achievement of the target objective, regardless of the short run costs, without being interfered by government intended benefits which tend to be generally myopic and short term. This therefore is likely to result in the central bank choosing policies which aid and support economic performance and the long term welfare of the society. In the Zimbabwean case the Reserve Bank Act clearly states the objectives of the central bank, meaning that if independence of the RBZ exists, then it is only in as far as instrument independence is concerned, for goal independence is taken away by the mere existence of a legislation which stipulates the operations and objectives of the RBZ. An intangible source of central bank independence according to Cukierman (2006) is the appointment of a capable, respected, politically astute and ‘independent’ minded governor or president of the central bank.

The freeing of the central bank from the appropriation process is another source of independence (Blinder, 1998). They noted that many central banks around the world are being granted the seignorage function, which is printing and issuing currency for the government. This will be to cover costs of their operations from the earnings on their portfolio of government securities acquired in the process, returning the excess to the government, which is highly inflationary and counterproductive to the economy. Bialt *et al* therefore points to the fact that if independent, no central bank will be given the seignorage function and hence their price stabilization objective will be made easier and therefore stimulation of economic performance in the country will come easier than in a monetized economy. It is critically important to ensure that the central bank will not be required to directly underwrite government debt for it to be accorded the level of independence prescribed by the Maastricht Treaty (Mishkin, 2004). The country’s Finance Ministry will have an incentive to keep rates low to reduce government’s debt servicing costs.

3.3. Central Bank Independence and Monetary Policy

Independence of the central bank is a prerequisite for achieving the goals that traditionally have been assigned to central banks specifically for achieving price

stability (Levin *et al*, 2004). Grilli *et al* (1991) noted that independence does not literally mean independence from government, because central banks everywhere are almost always a part of the government. There is always a link between the economics of the central bank and the politics of the central government but if the two are given boundaries, the policies thereof are more effective than if their interests are given room to overlap and conflict. According to Drazen (2002), the motivation for granting independence to central banks is to insulate the conduct of monetary policy from political interference especially that perpetrated and motivated by the pressures of elections to deliver short term gains irrespective of longer term costs. The intent of this insulation is not to free the central to pursue whatever policy it prefers, indeed every country, as Stiglitz (1998) revealed, specifies the goals of monetary policy to some degree, but to provide a credible commitment of the government, through its central bank to achieve economic performance without political interference. This argument therefore shows that granting independence to central banks fosters them towards sound economic policy implementation free of political bias, for improved economic performance in the country.

According to Stiglitz (1998) even a limited degree of independence, taken literally could be viewed as inconsistent with democratic ideals and in addition might leave the central bank without appropriate incentives to carry out its responsibilities. They argued that for central banks to be accountable to their policy outcomes, these policies must have been self formulated and implemented without government interference. Independent central banks are therefore more likely to come up with better policies for improved economic performance as they will be accountable to whatever their policy outcomes. Their argument is in line with that of Barro and Gordon (1983) which points to the fact that independent central banks are indeed an ingredient of improved economic performance in any country.

3.4. Central Bank Independence and Inflation

Interest in central bank independence was motivated by the belief that, if a central bank is independent of direct political pressure, it achieves lower and more stable inflation (Cukierman *et al*, 2002). The argument is that, independence enables the central bank to vary its policies and objectives for the attainment of its mandated objectives, chief of which is price stabilisation, without pressure from the government to deliver short term gains regardless of long term costs mainly for political gains of the central government. Price stabilization promotes expenditure in the country, which is attractive to investment in the economy. An increase in investment will therefore mean an improvement in the economic performance of the country hence the attainment of the general central bank objectives.

In a study carried by Bade and Parkin (1988) to find the link between central bank independence and the final effect on the economic performance of the country 12 Organization for economic Cooperation and Development (OECD) countries were used. The degree of policy influence was determined by the government's ability to appoint the members of the central bank governing board and whether the government or the central bank policy authority. Countries were given a rank of one to four in each

category, with four being the highest level of central bank independence. The research concluded that policy independence is an important determinant of inflation and the resultant GDP growth in the country because the two countries with the highest degree of policy independence, Germany and Switzerland, had inflation rates significantly below those of all other countries in the sample. Their GDP growth rates were considerably higher, indicating a link between their central bank's independence and economic growth.

Grilli *et al* (1991) calculated two indexes of central bank independence- one based on economic measures of independence and the other based on political measures of independence. It was found that economic independence was negatively related to inflation. Political independence also had a negative relationship with the GDP growth though the relationship was not statistically significant. It was also noted that the countries with the highest independence, Germany and Switzerland, had the highest GDP growth rates and the lowest inflation rates, indicating a link between better economic performance and central bank independence.

Alesina and Summers (1993) calculated a measure of central bank independence by averaging the indexes created by Bade and Parkin in 1988 and that of Grilli *et al* in 1991. They found that the more dependent a central bank was, the greater the variability of inflation and GDP growth rates. This, they argued was a result of the link between inflation and the level of investment in the country. From their sample, they found that high degrees of independence were the causes of low inflation, which was attractive to investment hence the increase in the economy's GDP growth rates.

3.5. Central Bank Independence and Economic Performance

According to Bade and Parkin (1988), central bank independence is designed to insulate the central bank from the short term and often myopic political pressures associated with the electoral cycle. This has been described as the political business cycle in which the pre-election stimulus leads to higher inflation followed by monetary restraint after elections. Guy and Fischer (1995) also argues that the political business cycle gives the government the urge to direct the central bank to indulge into policies that will yield immediate results regardless of their long run effects to the country. In dependent central bank situations, budget priorities and monetary policy objectives can be in conflict (Cukierman, 2006).

The executive branch generally wants to keep the cost of servicing its debt low, and this preference might be at odds with the need for monetary policy to vary interest rates to maintain price stability. Empirical studies generally found an inverse relationship between measures of central bank independence and average inflation or Gross Domestic Product (GDP) growth, for many developed economies. The inverse relationship according to Frankfurt (2004), is reflective of the fact that countries with less aversion to inflation are less likely to have independent central banks but at the expense of improved economic performance.

3.6. Central Bank Independence and the Real Economy

Cukierman *et al* (1992) found no systematic effect of central bank independence (using either of their two indicators) on the growth rate of real output. Alesina and Summers (1993) likewise found no correlation between average economic growth or the variability of growth and the level of central bank independence. However, they all pointed out to the fact that there is always a transmission mechanism which results from the granting of independence to the central bank in the form of the resultant low inflation rates which are attractive to investment, resulting in employment creation and increases in the output levels in the country, hence improved economic performance.

3.7. Fiscal Deficits

Governments realizing that there maybe some limit on their ability to issue bonds continuously to finance deficits may decide to limit deficit spending (Grilli *et al*, 1991). Bermanke *et al* (1999) investigated 12 countries and found that there was evidence of a negative relationship between central bank independence and the long run behavior of government deficits as a percent of GNP. The deficits of Switzerland and Germany, the countries with the highest levels of central bank independence, had long run equilibrium values near zero with little variance. He argued that the independence of central bank in the monetization of these deficits which is inflationary and counterproductive to the economy. The independence of the Deutsche Bank and the Reserve bank of Switzerland were therefore concluded to be the causes of low fiscal deficits and the resultant high GDP growth rates in these two countries.

Bade and Parkin (1988) looked at fiscal deficits as a percent of GDP in Australia, Canada, Japan, New Zealand and the USA for the period 1970-1985. They found that New Zealand, which had the lowest level of central bank independence, had the highest fiscal deficit as a percent of GDP. Therefore it was concluded that there is a negative correlation between the deficit/GNP ration and the degree of central bank independence. They also indicated that central bank independence is an ingredient of improved macro economic performance.

4. RESULTS

Findings were obtained among other methods through interviews and questionnaires as mentioned under Methodology above.

When asked if the RBZ was independent there was a unanimous agreement that it was not independent as it is answerable to the Minister of Finance, who has the power to give general directions on all policy issues and determines the budget of the central bank. They also highlighted that the President appoints the Governor and his three deputies for renewable five year terms as enshrined in the RBZ Act (Chapter 22:15) as such this makes it difficult for the Central Bank to resist government demands as the monetary policy was strongly subordinated to the fiscal policy, to such as extent that the central bank could not bounce government cheques.

All respondents agreed that the level of independency of the RBZ greatly affected the soundness of banks in the financial sector in Zimbabwe between 1997 and 2007 as they pointed that the RBZ employed poor and inconsistent economic policies which were described as perishable. The word “perishability” normally conjures images of food items like milk, fish that go bad when not properly stored. However, because of the circumstances the country finds itself in, a number of policy initiatives exhibited a high degree of perishability. Policy measures would last from a few hours to three months.

On whether the central bank policies influenced the viability of the banking sector, it was mentioned that the monetary policy ceased to be a useful management tool in the maintenance of the internal and external value of the Zimbabwean dollar through price stability. About 60% of the respondents noted that as inflation was at 24000% the RBZ would borrow through treasury bills at 340% then on lends to selected sectors at 25%. This sequence of rates was disastrous and increased fragility of the banking sector. It was also found that the removal of zeros would have worked if accompanied by an influx of foreign currency to support the local currency. This would have been in the form of foreign aid, foreign direct investment or increased exports. On interest rates, respondents stated that the negative real returns spurred on by loose monetary policy framework on the money market resulted in depressed interest rates on deposits that scared away savers from investing with banks. Interest rates offered were below the inflation rate which resulted in negative returns; hence, the public had no incentive to keep their funds in banks. It was found that the interest rate regime has failed to address the issue of disintermediation in a hyperinflationary environment. The study found out that it was difficult for savers to leave their funds in low yielding savings accounts with banks, as the negative real interest rates prevailed.

4.1. Foreign Exchange Market

On the foreign exchange regime the study found out that the RBZ erred by pursuing a fixed exchange rate despite the weakening Zimbabwe dollar and this affected the viability of banks.

Between July 1997 and March 1999 a managed float exchange rate regime was used. This resulted in adverse balance of payments developments in 1997, particularly from the last quarter combined with rising domestic inflation exerting immense pressure on the exchange rate. As market confidence declined speculative behavior about probable currency depreciation intensified. This led to prepayment of lines of credit, hoarding of foreign exchange and further attacks on the Zimbabwean dollar. These developments intensified from October 1997, as evidenced by significant build up of foreign exchange balances of companies at banks.

The RBZ in consultation with the Bankers Association, agreed on an informal arrangement which stabilized the exchange rate at ZWD38/USD in March 1999. The relative stability was also a result of declining import demand due to tariff adjustments, improved operational efficiency of the interbank foreign exchange market and a tight monetary policy. The arrangement to stabilize the exchange rate at ZWD38/USD showed some shortcomings from mid 1999 due to continued poor export performance

and expected international BOP support which did not materialize. During the first half of 2000, the foreign currency situation deteriorated further and this led to development of a parallel market, accounting for a greater part of foreign exchange transactions. This was also followed by the suspension of BOP support to Zimbabwe and it compounded the foreign currency situation and maintenance of the exchange rate at ZWD38/USD became unsustainable.

The exchange rate which was pegged at ZWD38/USD for twelve months was adjusted to ZWD50 in August 2000. This was under the new fixed exchange policy which linked exchange rate adjustments to changes in inflation differentials between Zimbabwe and its major trading partners. This exchange rate policy was introduced against the background of a breakdown of the informal arrangement between the Reserve Bank and Authorized Dealers to peg the exchange rate at ZWD 38/USD, and the closure of several gold mines, as a result of a combination of rising production costs and declining revenues. Escalating foreign payment arrears and rising domestic inflation also put on pressure on the local currency.

An export Support Rate of ZWD800 per USD was introduced in February 2003 in order to restore exporter viability and increase the capacity of the key sectors of the economy to generate foreign exchange. Government undertook to review the exchange rate on a quarterly basis in line with macroeconomic developments in the country and purchasing power parity with country's major trading partners. Although after the introduction of the export support scheme, monthly foreign exchange inflows improved, the capacity of exporters to fully benefit from the export support rate was undermined by high inflationary environment coupled with constraints on production.

The Foreign Currency Auction System commenced on the 12th of January 2004 and the system involved the auctioning of foreign exchange through a Currency Exchange- an independent body supervised by the Reserve Bank. The system was abandoned in October 2005 because it failed to achieve the desired results of enhancing export viability.

4.2. Intermediary Role

When asked if banks were effectively playing their pivotal role in the economy, nearly 87.5% of the respondents were of the opinion that banks are not playing their intermediary role effectively and efficiently in the economy. The study found out that the government greatly affected the state of development of the financial sector in the country through the implementation of imprudent, inconsistent and unsustainable policies which played significant role in perpetuating macroeconomic distress in the country. Political turmoil which had been the order of the day for a long time was characterized by civil strife, corruption, and crime destroyed capital and infrastructure increasing cost of doing business and creating uncertainty about property rights. All these were detrimental to financial sector development. There was lack of fiscal discipline as there was a large financing requirement from government crowding out private investment by increasing the required return on government securities and absorbing the bulk of savings mobilized by financial sector.

The study found that during this period there was poor judicial system which caused property rights violation. The weaker property rights forced banks to invest more resources in credit appraisal fees. Banks became reluctant to extend loans because of the inefficient judicial system, corrupt bureaucratic political institutions which hindered loan recovery. State ownership of financial institution has caused low level of financial development as concentrated lending is not directed to the poor but to politically favored and commercially unviable projects this has resulted in lower economic growth, and greater system fragility.

5. DISCUSSION

In Zimbabwe, the framework for the operation of monetary policy is set out in the Reserve Bank Act which requires the board to conduct unbiased monetary policy in a way that, in the board's opinion, will best contribute to the central banks objectives of: i) Currency ii) Maintenance of full employment in the economy and ii) Economic prosperity and welfare of the majority. Both the central bank and the government agree on the importance of low inflation expectations. These assist business in making sound investment decisions, underpin the creation of new and secure jobs, protect the savings of the public and preserve the value of the economy's currency, hence improving the country's overall economic performance. The gaining of independence to the central bank enables the government to make suggestions rather than directives. This argument points to the fact that central bank policies need to be separated from government control and government policies because if the two are given room to overlap the resultant effects are detrimental to economic growth as their overall objectives are usually different. The government always target at political gain, mainly re-election whilst the central bank targets high economic performance through enhancement of low inflation-output variability in the economy. A major reason why policy reform often fails is the absence of a functioning system of accountability and a lack of constraints and checks on politicians.

However countries vary considerably in the specificity of their mandated goals and hence in the degree of discretion of central banks in the conduct of monetary policy. This means other central banks have legislated objectives which they have to attain using self formulated policies but still the argument is they tend to achieve better overall economic performance than their other counterparts who lack any form of independence (Buchanan and Wagner, 1977). As Grilli *at al* (1991) argued, central banks have specific legislative mandates and therefore do not have goal independence, therefore the 'independence' of 'independent' central banks is instrument independence under which the central bank has authority to choose settings for its instruments in order to pursue the objectives mandated by the legislature without seeking permission from, or being overturned by either the executive or the legislature.

If there is interference in the central bank's policies by the fiscal authorities, there will be pressure on the central bank to keep interest rates low regardless of target objectives and market conditions, for the benefit of the central government. Low interest rates will promote borrowing in the economy, which is highly inflationary as it results in increased liquidity. The resultant inflationary environment in Zimbabwe

during the period under study was not attractive to investment thus resulting in reduced economic activity hence poor macroeconomic performance. For the Zimbabwean case, the RBZ is the sole underwriter of government bills and this again shows that the Zimbabwean central bank does not meet the conditions set out in the Maastricht Treaty for an independent central bank.

The appointment of the central bank governor has a huge effect on the achievement of monetary policy targets. The appointment of a politically astute person as the central bank governor will almost always guarantee the formulation and implementation of policies aimed at purely economic gains. Such a governor will bear the ability to stick to the price stability objective even at the cost of other short term real objectives, thereby enhancing improved economic performance of the country through an array of economic benefits which emanates from price stability in the economy. The RBZ governor is appointed by the President through the Finance Minister, which creates room for the appointment of someone who can be easily manipulated for political benefits at the expense of long term costs to the economy. Since the existence and objectives of the RBZ are clearly stated in the Reserve Bank Act, its goal independence therefore does not exist and this leaves room for reduced accountability of the RBZ on its policies. This reduces the commitment of the central bank to its policies which it is lowly accountable to hence creating room for poor policies which do not meet the intended objectives as the monetary authority.

As Johnson (2006) argued the need by the government to gain politically has seen central banks getting themselves into expansionary monetary policies which create immediate employment but at the same time resulting in the future inflation prospects in the country which is detrimental to the long run economic performance of the country. Independence therefore insulates central banks against this, thus giving them the platform to formulate and implement policies which are solely aimed at the economic good of the country. There is need to grant central bank's independence such that there will be no interference on its policies to manipulate them towards the countries budget priorities. Sound economic policies which do not have a bias towards the country's budget priorities will therefore means that the central bank will come up with unbiased policies which will be implemented for the improved economic performance of the country.

Interest rate ceilings, liquidity ratio requirements, high bank reserve requirements, capital controls, and restrictions on the market entry into the financial sector characterized the banking environment during the period under study. It resulted in banks' enormous stresses as sudden opportunities to make disproportionately large profits arose.

6. CONCLUSION

In conclusion governments place more weight on meeting its output target than its inflation target whereas the opposite holds for the central bank. If the central bank is independent of government control, then its targets are more likely to be aimed at the long run plan of the economy resulting in improved economic performance than in a situation where the government is in control of the target goal and the instruments to be

employed in policy implementation. The key to effective operation of the central bank within governments is a well-designed policy mandate, a high degree of formal instrument independence, complementary informal relationships to ensure appropriate coordination without undermining instrument independence, a disciplined regular process of legislative oversight, and high degree of transparency and disclosure.

The result is a good balance among government mandated objectives, instrument independence, flexibility and accountability which are aids of improved economic performance and sound financial sector. This balance keeps open opportunities for political interference and requires continuing energy and focus both to the central bank and government on sustaining the independence of the central bank. Otherwise the full benefits of independence in the form of improved economic performance will not be realized. Central bank independence, from the evidence gathered in the empirical studies, must not be taken as an unassailable but rather as a principle that has to be uplifted and defended for the long time good of the nation in the form of improved economic performance.

REFERENCES:

- [1]. **Alesina, A.; Summers, L.** (1993) *Central Bank Independence and Macroeconomic Performance. Some Comparative Evidence*, Journal of Money, Credit and Banking 25(2): pp.151-62
- [2]. **Bade, R.; Parkin, M.** (1988) *Central Bank Laws and Monetary Policy*. Mimeo, University of Western Ontario
- [3]. **Baer, H.; Sue, F.G.** (1986) *Toward Nationwide Banking: A Guide to the issues*, Federal Reserve Bank of Chicago
- [4]. **Barro, R.; Gordon, D.** (1983) *Rules, Discretion and Reputation in a Model of Monetary Policy*, NBER Working Paper no.1079, Cambridge Mass: NBER.
- [5]. **Bernanke, B.; Lanbach, T.; Mishkin, F.; Posen, A.** (1999) *Inflation Targetting lessons from the international Experience*, Princeton: Princeton University Press
- [6]. **Blinder, A.** (1998) *Central banking in theory and Practice*, Cambridge, Mass: MIT Press
- [7]. **Buchanan, J.M.; Wagner R.M.** (1977) *Democracy in Deficit*, New York: Academic Press
- [8]. **Cukierman, A.; Miller, G.P; Neyapti, B.** (2002) *Central Bank Reform, Liberalisation and Inflation in Transition economies-An International perspective*, Journal of Monetary Economics, 49, pp.237-64
- [9]. **Cukierman, A.** (1992) *Central Bank Strategy: Credibility and Autonomy*, Cambridge, Mass: MIT Press
- [10]. **Cukierman, A.** (2006) *Central Bank Independence and Monetary Policy Making Institutions.: Past, Present and Future*, Central Bank of Chile Working Papers no. 360, Santiago
- [11]. **Dunne, G.T.** (1985) *A Christmas Present for the President: A Short History of the Creation of the Federal Reserve System*, Federal Reserve Bank of St Louis
- [12]. **Drazen, A.** (2002) *Central Bank Independence Democracy, and Dollarisation*, Journal of Applied Economics V. (May): 1-17
- [13]. **Dykes, S.E.; Michael, A.W.** (1989) *The Establishment and Evolution of the Federal Reserve Board: 1913-23*, Federal Reserve Bulletin, 75, pp.227-43
- [14]. **Johnson, R. T.** (1990) *Historical Beginnings*, Federal Reserve Bank Bank of Boston
- [15]. **Feinman, J. N.** *Reserve Requirements: History, Current Practice, and Potential Reform*

-
- [16]. **Frankfurt, F.B.W.** (2004) *Central Bank Independence: What Does It Mean?* Reserve Bank Australia Bulletin (December)
- [17]. **Guy, D.; Fischer, S.** (1995) *How Independent Should a Central Bank Be?* Federal Reserve Bank of San Francisco, Working Papers in Applied Economic Theory, pp 95-105
- [18]. **Grilli, V.; Donato, M.; Guido, T.** (1991) *Political and Monetary Institutions and Public Financial Policies in the Industrial Countries*, Economic Policy, 13, pp.341-92
- [19]. **Hoskins, W.L.** (1991) *Defending Zero Inflation: All for Naught*, Federal Reserve Bank of Minneapolis Quarterly Review, 15, pp.16-20, Spring
- [20]. **Johnson, R.T.** (1990) *Historical Beginnings*, The Federal Reserve
- [21]. **Levin, A.; Natalucci, F. M. and Piger, J. M.** *The Macroeconomic Effects of Inflation Targeting*, Federal reserve bank of St. Louis Review 86(3), pp.51-80
- [22]. **McNees, S.K.** (1993) *The Discount Rate: The Other Tool of Monetary Policy*, in Federal Reserve Bank of Boston, New England Economic Review. July/August, pp.3-22
- [23]. **Meulendyke, A.** (1992) *Reserve Requirements and the Discount Window in Recent Decades*: in Federal Reserve Bank of New York, Quarterly Review, 17, Autumn, pp.25-43
- [24]. **Mishkin, F.S.** (2004) *Can Central Bank Transparency Go Too Far?* NBER Working Paper no. 10829, Cambridge, Mass: NBER
- [25]. **Pauls, B.D.** (1990) *US Exchnage Rate Policy: Bretton Woods to Present*, Federal Reserve Bulletin, 76, November, pp.891-908
- [26]. **Stiglitz, J.** *Central Banking in a Democratic Society*, De Economist 146(2), pp.199-226
- [27]. **Summers, B.J.** (1991) *Clearing and Payment Systems: The Role of the Central Bank*, Federal Reserve Bulletin, 77, February, pp.81-91
- [28]. **Welch, J.H.; William, C.G.** (1999) *Economic Liberalisation in the Americas*: in Federal Reserve Bank of Dallas, Annual Report, pp.4-17
- [29]. **Central Statistical Office (CSO)** downloaded from www.instablogs.com on 17 December 2009
- [30]. **Zimbabwe Independent** (2005) *Quoted Company Survey*
- [31]. *Oxford Advanced Learners Dictionary*, downloaded form www.oup.com/eit/catalogue/teachersites on 6 February 2010
- [32]. *Federal Reserve Bulletin* (1993) vol.79, June, pp.569-89
- [33]. *Financial Gazette* (2008) 20 November, Zimbabwe

STUDY ON ORGANIC FOOD PRODUCTS IN ROMANIA

CECILIA IRINA RĂBONȚU,
AMALIA VENERA TODORUȚ *

ABSTRACT: *Romania's potential to produce organic food is rising to the potential of Germany (the second biggest producer in Europe). Nevertheless, it remains untapped because of the too low demand from the population. So producers feel compelled to export raw materials from Western countries for processing and on the shelves of stores in Romania, products arrive at oversized prices. We wish that through this work to identify as accurately as possible the level of the supply and demand of organic food products in order to make proposals to improve the current situation, but in particular to improve the quality of life of the population of Romania, through its guidance to a healthier lifestyle.*

KEY WORDS: *organic food; the quality of the food industry; promoting the concept of organic farming*

JEL CLASSIFICATION: *I12, L66, M31*

1. INTRODUCTION

Whatever their nature, plant, animal or mixed, the food is essential for humans, since it provides energy and basic nutrients necessary to the good development of metabolic processes, growth and development of the individual. Today it manifests on the domestic and international market a phenomenon of extreme diversification of the categories of food packed more complex and colorful so that they attract more consumers. However we must say that food have a complex composition, sometimes indiscernible by consumers and that associated with improper diet, low in nutrients required for the body, as well as combining "dangerous" food, leads to increased risk of disease through ingested food amid stressful factors to which man is subjected daily. All this brings into focus the need to revise the conception of human nutrition

* *Assoc. Prof., Ph.D., "Constantin Brâncuși" University of Târgu Jiu, Romania,*
cecilia.rabontu@gmail.com

Assoc. Prof., Ph.D., "Constantin Brâncuși" University of Târgu Jiu, Romania,
amalia_venera@yahoo.com

and its emphasizing character as preventive health factor, but also the great importance of food safety in the context of food production and of an extremely dynamic and complex trade. Increasingly the emphasis is put on the nutritional value of sold products and it increases the responsibility of those who produce and market food as it regards their innocuity status.

2. GENERAL ASPECTS REGARDING THE QUALITY OF AGRIFOOD PRODUCTS

In the current market economy, characterized by a range of goods, including food, very complex, there is intense competition among producers and traders with regard to meeting the highest level of consumer requirements, which are constantly changing, but without which the achievement of economic efficiency and, ultimately, profit is unlikely. Therefore, on a this large competitive market, consumers not only follow the general and particular characteristics of the existing product mix, but also the possibilities they have in relation to choice of quality food and goods that are safe for consumption. In other words, they are concerned in an increasing measure of the problems of quality assurance and the insurance of the safety of their purchased goods and the responsibilities of those operators that are guilty of producing and marketing products that may harm their health or their immediate and long term economic interests (Micu & Petanec, 2008).

It should be recognized that economic agents do not always respect the code of ethics and do not call at all times to the most honest practices, issues that call for intervention of state bodies - through various regulations (laws, rules, standards, etc.). In terms of imposing specific requirements throughout the feed chain to give consumers confidence that the goods they purchase will not affect the safety, health and their legitimate interests. International and Romanian law on food industry provides for all units involved in the whole food chain from primary producers to the sale of food (production, transport, storage and food trade), the principles of a food safety management system based on risk assessment and prevention, so of a HACCP (Hazard Analysis and Critical Control Points) system. The quality of the food industry is not only about the finished product but also means the hygiene of the processes (not limited to the technological flow). In this context, the quality is and will always be an important competitive factor, if not most important. HACCP principles are a means to guide the organization to comply with all rules related to the deliverance of quality products and the continual improvement of performance (Micu & Petanec, 2008).

3. LEGISLATIVE REQUIREMENTS ON THE PRODUCTION OF ORGANIC FOOD

Any operator of organic food products, as required by law, must record the activity at ANPE (National Authority of Organic Products) and be subject to inspection and control of an accredited certification body. On the products that have been subject to inspection and certification may appear the words "Organic farming ECOROM - RO control system. Also, to get organic / certified organic products on the European

market, Romanian farmers must comply with the principles contained in Council Regulation 2092/1991/CEE (<http://www.fermierul.ro/>). To export, however, is needed that the products obtained in Romania must be recognized on the European market. Recognition requires the receiving by farmers of the organic certificate for their products that such products can be sold on the domestic market and exported without any problem as organic.

Environmental Compliance Certificate is granted by the specialized bodies after a rigorous monitoring conducted during production processes. In Romania there are three Romanian certification bodies and nine foreign certification bodies for organic food products. According to Government Emergency Ordinance 34/2000 on organic food producer is called the operator of any natural or legal person who produces, prepares, imports, exports and / or sells organic food products. To join the list of certified operators must follow certain steps. Registration of organic producers is required each year and is made by filling in the registration forms in organic farming available at the Departments of Agriculture and District Rural Development, in which perimeter the producer operates. MAPDR approved sheet records are returned to the manufacturer and to the DADR and may be eligible documentation for the support of organic farming and the request of the logo "ae". Each year the Ministry of Agriculture develops the ecological agriculture operators list that is available to those interested.

4. THE PRICES OF ORGANIC PRODUCTS

Regarding the prices of organic products there can be specified the following: *in most cases*, prices of organic products are higher than prices of the products obtained by classical, industrial methods. Even in these conditions, the products have a guaranteed market because there are groups of consumers willing to pay higher prices; *in some cases*, the widespread use of products or products produced by farmers in their farms, contribute to the formation of advantageous prices for buyers; *even if at first sight* an organic products price is higher than a similar regular product, that expense can be addressed as an investment in human health and the environment. In table 1 we present a comparison between prices of organic products and nonorganics for a better picture of the above statements. Can be seen from the above data that organic products have higher prices compared with non bio, this primarily being due to the productivity of obtaining such products much lower than in the other case and given the rarity of these products that enable manufacturers maintain high prices.

5. PACKAGING AND LABELING OF ORGANIC PRODUCTS

Packaging is particularly important in the distribution of organic products. In the speciality literature, and not only, was commonly spoken lately about so-called eco-size of the package. Among the many reasons behind such an approach we could only remember that packaging pollutes the environment (and only addressing the issue in quantitative terms). European labelling requirements from organic farming products are very precise. On the label affixed to the organic products the following entries specific to the farming system are required: the reference to organic production, logo,

name and the code of the inspection and certification body which carried out the inspection and issued the organic product and since 2006, the abbreviation "ae" (www.immromania.ro/noutati/noutate.php?id).

Table 1. Comparison between bio and non bio product prices

-lei-

Product	Bio	Non-bio
Bread	3	1,8
10 eggs	12	5-7
Milk 3.5%	7-8	4
600g cheese	20	10
Oil 1l	35	6
Flour	10	2
500g sugar	14	3,5
Miere polifloră Honey polyfloral	35	8
Organic Feta Cheese 200g	21,5	5
Organic salami 200g	31	5-9
Canned green	10-40	2,5-110
Organic cocoa	24	8
Palm sugar 1 kg	40	- -
A pack of organic biscuits	14	2,5-4
Organic corn	12	5
Organic ground coffee 200g	39	11

Source: www.capital.ro and own observations

The abbreviation "ae" ensures that the product, as labelled, comes from organic farming and is certified by a certified control body, allowing consumers an easy identification of these products on the market. The rules for using the logo "ae" are contained in Annex 1 to the Joint Order amending and supplementing the Annex to the Order of the Minister of Agriculture, Forestry and Rural Development no. 317/2006 and of the president of the National Authority for Consumer Protection nr.190/2006 for approving the specific labelling rules of organic products (www.apdrp.ro). The right to use the logo "ae" on products, labels and packaging of organic products will have the producers, processors and importers registered with the Ministry of Agriculture and which are holding a contract with an inspection and certification body approved by the Ministry of Agriculture and in order to obtain the right to use the logo "EA", the certification and "ae" communication, applicants will complete the application requests (www.immromania.ro/noutati/noutate.php?id). Since 1992 when we started Eco-label, the number of companies that have requested and received labelling increased each year. Early in 2009, more than 750 companies had an eco-label for their products and services and at the end of this year were recorded 839 operators. The largest increase is observed from 2007-2008 (<http://www.chimiamediuului.ro/2010/01/10/ecolabel/>).

Organic products must be transported in packages preventing any possible substitution of contents. These packages usually contain indications of name and address of the manufacturer or processor, the product name and instructions on how organic production took place. The marketing of organic products from import will be subject to very strict rules and controls. The examinations to be made concern mainly on the production requirements and provisions on surveillance. Imported consignments

will be accompanied by a certificate of inspection issued by the regulatory body of the country of origin, the certificate will guarantee compliance with all environmental standards. The transport of organic products will be imported from a closed package, containing particulars of the importer and the particulars of the product under the inspection certificate accompanying the consignment (Stoian, 2005).

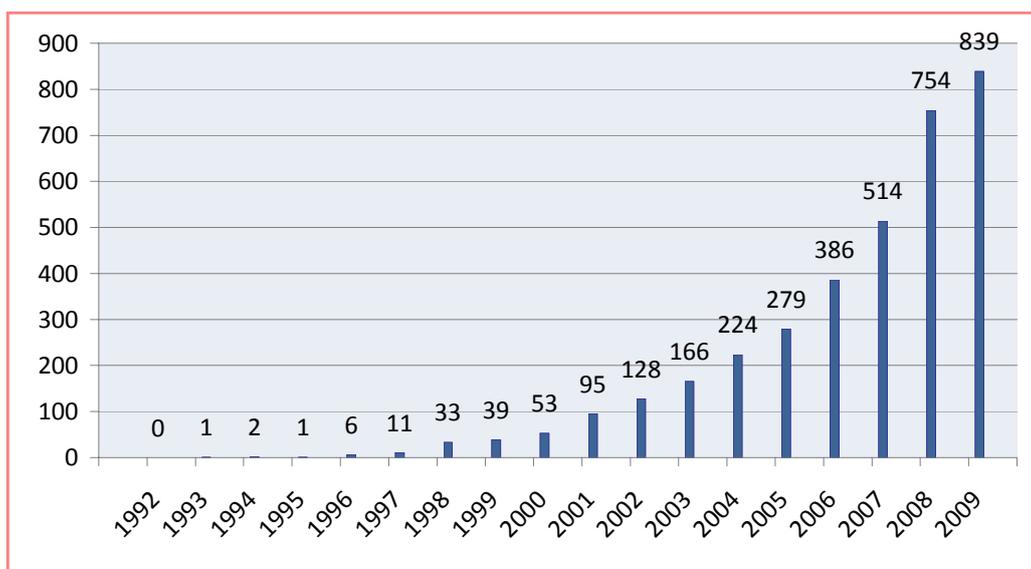


Figure. 1 Evolution of environmental licenses in Romania during 1992-2009

6. STATISTICAL ANALYSIS ON AND ECOLOGICAL FOOD PRODUCTS SITUATION IN ROMANIA

From the statistical point of view we can say according to data from the Ministry of Agriculture that Romanian exports of agricultural products increased after the first nine months of 2009 with 11.6% to 1.64 billion euro, from 1.47 billion in same period in 2008, while imports decreased by 8.3%, from three billion to 2.75 billion euro (www.apdrp.ro). Thus, according to data of Ministry of Agriculture, during January-September 2009, Romania exported agricultural products worth about 1.25 billion euro in EU countries, compared to 998.4 million in same period of 2008. Regarding exports outside EU, they stood after the first nine months of the year 2009 to 393.3 million euros, compared to 470.7 million euro in the corresponding period a year earlier. Also, according to MARD, the first nine months of last year, Romania imported food products from EU countries worth about 2.22 billion euro, compared to 2.37 billion euro in same period of 2008. As regarding the imports from outside the European Union, during January-September 2009, Romania imported agricultural products worth 535 million euro, compared to 632 million euro in the corresponding period of 2008 (www.apdrp.ro).

The European Union is the main partner of Romania in agricultural trade, as in the first nine months of 2009, shipments of agricultural products to the EU had a share value of 76% and purchases of EU Member States have held a share of 80%. The total food exports in the first nine months of 2009 was 1.64 billion euro.

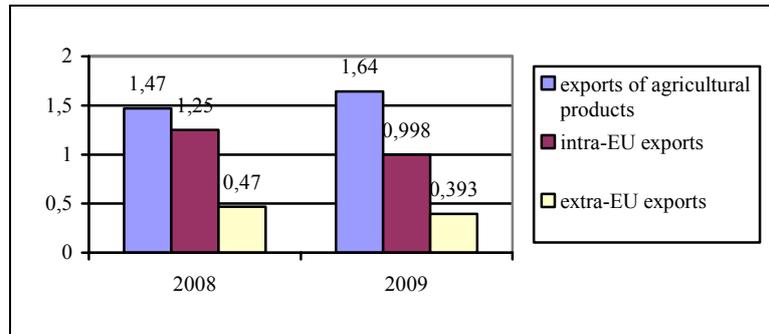


Figure 2. The evolution of Romania's exports of agricultural products in 2008 and 2009 (billion Euros)

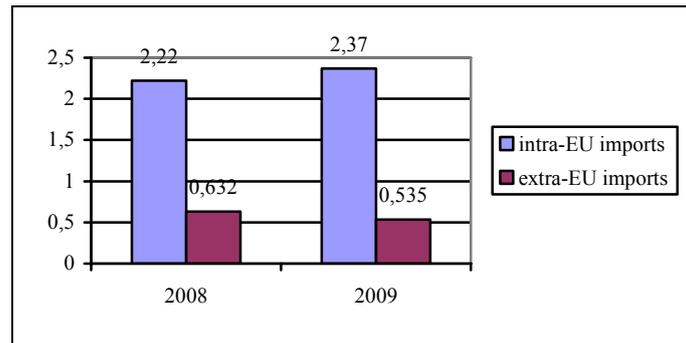


Figure 3. The evolution of Romania's imports of agricultural products in 2008 and 2009 (billion Euros)

According to data presented, increasing organic market in Romania is a constant, given that last year there were 86 registered processors of organic products, almost double that of 2007 when it was recorded a total of 48. Of the total reported, 60 were processing plant, 9 animal production and 17 in beekeeping (www.capital.ro). Romanian market value of organic food products was in 2008, 20 million euro, and if we think that the number of processors has doubled from 48 in 2007 to 86, in 2008, we can say that we are dealing with steady growth of this field in Romania.

According to the Ministry of Agriculture, Romania has at present, an area of 14.8 million ha of farmland. Registered operators in the organic sector, have their number estimated in 2009 to 4194, increased by 1.9% compared to 2007. Moreover, official data shows that most operators were in the year 2007, in livestock production, namely 2986. And in beekeeping there were a considerable number of operators, ie 467. Nationally, Suceava county has the most numerous operators of organic food

producers (over 700), followed by Mures (between 200 and 700) and in third ranks Bacau, Tulcea and Ialomita (between 100 and 199). There are 12 counties in which are recorded a number of fewer than 20 operators, and this means that we are dealing with small businesses, even at the family level. As for exports of organic food products we can say that they stood in 2008 to 100 million euros, equivalent to around 130,000 tones, of which only 1% was processed products and 0.94% honey. An overview of the situation of organic agriculture in Romania is shown below.

Table 3. Evolution of organic production in Romania

Specification	UM MU	2006	2007	2008
Total quantity plant	To	131898	166573	169312
Cereal	To	55000	48441	65127
Oil and protein	To	45600	73082	52982
Vegetables	To	7200	8707	3410
Fruits	To	1000	340	1255
Spontaneous flora collection	To	16 748	24 962	35 236
Other crops	To	6350	11 041	11 302
Livestock production				
Cow's milk	To	100 000	122 000	85 031
Ewes	To	13 500	15 500	13 273
Eggs	Thousand pieces	1820	1075	1321
The main processed products				
Sheep cheese	To	480	520	510
Swiss	To	268	576	580
Pressed cheese	To	330	642	640
Canned vegetables and fruits	To	50	42	40
Honey	To	610	1242	1950

Table 4. Evolution of organic farming in Romania

Indicator	2006	2007	2008
Surfaces grown by organic production method	143 194	190 129	221 411
Certified organic surfaces	78 083	143 179	152 881
Conversion plots	65111	46949	68530
Share of organic production in the total agricultural area	1%	1,4%	1,6%

Source: Romanian http://www.financiarul.com/articol_35166/schimburile-comerciale-cu-produse-ecologice-is-only-062-of-market-profile-full-of-the-union-europene.html

Destinations in which were achieved the most important exports were: Netherlands, Germany, Denmark, Italy and Britain. The official drafted a profile of the Romanian consumer of organic products, based on a survey conducted by the ministry of resort. The profile of the Romanian consumer of organic products is represented by qualified customers, age between 30 and 50 years, but with an income above average. The most requested items by this are: cheese, dairy, honey or bread. One may say that trade has a niche in the clean wholesomeness and food quality is represented by its premium organic products, which because of the difficult economic situation, consumers are less willing to spend money on since their prices are higher. In the EU, meat without chemicals has double price compared with conventional meat. In the EU, meat without chemicals is double the price of conventional meat. Because of this

difference, people either do not eat meat or choose the conventional version, but also the dairy and organic vegetables tend to have prices 20% -30% higher than their conventional counterparts (www.capital.ro). Even if quality products are guaranteed safe by their organic composition itself, a defining imprint on the development of trade in such products, and not only, has the purchasing power of end users.

7. CONCLUSIONS

Organic products market is growing rapidly in most developed countries and developing countries as well, but the latter extends at a slower pace. The still modest share of organic products in international trade in food and drink is ample evidence of the development potential of these products in the long term. The insurance of long-term food security by reducing the effect of the factors that have led to the food crisis must consider: sustained increase of food availability through increased production and quality from small farmers, extending coverage and effectiveness of social protection systems, improving food risk management, improving access to international markets for food, obtaining a broader international consensus on biofuels policies and practices to avoid damage that threatens global food security. In these circumstances, issues related to ensuring the safety throughout the food supplies food chain, acquires a special importance. Romania is a country with huge potential in this sector, but consumption of organic products is at an extremely low due to lack of information on the benefits of consuming green products, but also because prices much higher than those of conventional products.

REFERENCES:

- [1]. Manole, V. et al. (2003) *Agromarketing*, Edition II, Editura ASE, Bucharest
- [2]. Micu, L.M.; Petanec, D.I. (2008) *Quality and food safety in the context of regulations imposed by the EU*, Buletinul AGIR nr. 1-2, January-June, pp.33-35
- [3]. Popescu, D.V. (2005) *Rolul și locul comerțului cu bunuri alimentare în contextul globalizării*, Amfiteatru economic, 7, pp.57-64
- [4]. Stoian, M. (2005) *Evoluția piețelor agroalimentare în contextul globalizării*, Amfiteatru economic, 7, pp.65-69
- [5]. Stoian, M. (2003) *Ecomarketing*, ASE Publishing House, Bucharest
- [6]. *Dictionary of Economics* (1999) Economic Publishing House, Bucharest
- [7]. <http://www.fermierul.ro/modules.php?name=News&file=article&sid=20>
- [8]. www.apdrp.ro
- [9]. www.capital.ro
- [10]. www.cnp.ro
- [11]. www.fao.org
- [12]. www.insse.ro
- [13]. www.mapam.ro
- [14]. www.zf.ro
- [15]. www.immromania.ro/noutati/noutate.php?id
- [16]. <http://www.chimiamediului.ro/2010/01/10/ecolabel/>

BASIC AND ALTERNATIVE RULES IN EVALUATION OF TANGIBLE AND INTANGIBLE ASSETS

LUMINIȚA RUS *

ABSTRACT: *The purpose of this report is to bring to the forefront the basic and alternative national rules in evaluation of tangible and intangible assets approved by the Order of the Ministry of Public Finance no. 3055/2009, compared with the International Standards of Accounting matters and positioning of this accounting treatment in the context of the International Regulations. It also is reviewing fiscal influence of these valuation rules.*

KEY WORDS: *assets; asset identification; evaluation; revaluation; fair value*

JEL CLASSIFICATION: *M41*

1. INTRODUCTION

Any recording made in the accounts is seen by the light of monetary phrase, it expressed value. It express the value of purchases, the cost of production, sales of goods or services, operations of receipts and payments, whether they are carried out the elements monetary or non. All these operations, expressed in money, are covered by the process of evaluation.

I considered necessary to go through evolution of the national regulations on the matter, showing the most recent contributions made by OMFP 3055/2009 and the comparative presentation of this order with the international standards of accounting regards tangible and intangible assets.

This report presents in the first part the theoretic aspect of the rules of evaluation and then will be shown separate the basic evaluation rules for intangible assets and separate the basic evaluation rules for tangible assets. Further will be shown the alternative evaluation rules, speaking here about revaluation, and then to be achieved the fiscal aspect of the reevaluation of tangible assets.

* Associate economist, University of Oradea, Romania, lumimar@gmail.com

2. EVALUATION RULES

The assets shown in the accounts of an enterprise are evaluated, usually on the basis of cost of acquisition or production cost. Using the cost of acquisition or production is governed by the Order of the Ministry of Public Finance no.3055/2009. In what follows will be presented the basic rules of evaluation and the rules for alternative evaluation of tangible assets. The tangible assets include those assets who are intended to be use on continuous basis for a period exceeding one year, for the purposes of the entity.

2.1. The basic evaluation rules

The Order of the Ministry of Public Finance no.3055/2009 and previous regulations provide basic evaluation rules in four moments: at the moment of entry into patrimony; at the moment of inventory; at the end of fiscal year; at the moment of exiting the property. As regards the evaluation at the moment of entry into patrimony, the new rules do not make news, in that evaluation occurs at cost of acquisition, cost of production, fair value or worth consideration. It should be noted that it is now specified that fair value is determined through an effective evaluation, usually by professional assessment.

The purpose of financial statements, the elements of assets, liabilities and equity shall compile and evaluate at the carrying value agreed with the results of the inventory; the carrying value is the value at which assets are recognized after adjustments for depreciation deduction or loss of value and accumulated amortization for the amortizable assets. Adjustments for depreciation are established including unchanged stocks. The net realizable value of inventories is the estimated selling price that could be obtained in the ordinary course of business, less estimated costs to completion or sale of the property.

The asset value is determined by the usefulness of the asset, its condition and market price. The correction of the value of tangible and intangible assets is made according to the type of existing depreciation, either by recording additional depreciation, where an irreversible depreciation, either by creating adjustments for depreciation in case of reversible depreciation. It was introduced a requirement to develop their own procedures regarding inventory, with legal provisions. At the moment of exiting the property, the tangible and intangible assets, are evaluated at the value registered in accounting, recording as revenues any adjustments for depreciation or losses related.

2.2. Basic evaluation rules for intangible assets

The intangible assets who are intended to be use on a continuing basis for a period exceeding one year, the purpose of the entity (The Order of the Ministry of Public Finance no.3055/2009 published in Official Gazette no.766 bis of November 10, 2009, art. 65). The presentation of elements belonging to tangible and intangible assets is made in the explanatory note no.1, attached to the financial statements. In

this explanatory note are presented the tangible assets at the original cost of acquisition or production cost, the increases and decreases recorded in the financial year, the final balance of the period, on the one hand, and on the other hand, the adjustments of the reversible or irreversible value associated with these assets (depreciation and amortization).

Defining the tangible assets in the light of the national regulation, OMFP 3055/2009 and the international regulation, IAS 38 "Intangible Assets" is presented in table 1.

Table 1. Comparative definitions of intangible assets

	OMFP 3055/2009	IAS 38 "Intangible Assets"
An intangible asset may be recognize only if:	<ul style="list-style-type: none"> - it is estimated to generate profits for entity -it's cost can be assessed in a credible manner 	<ul style="list-style-type: none"> - the asset is controlled by entity as a result of past events; - the entity expects the asset to generate future economic benefits; - the cost of asset can be measured credible; -the asset can be separated from the commercial fund.
Tangible asset	<ul style="list-style-type: none"> - it is separable - flows from contractual rights or other legal forms 	

An intangible asset is an asset which is non-identifiable, non-monetary, non-material support and held for use in the production or supply of goods or services, or to be leased to third parties or for administrative purposes (The Order of the Ministry of Public Finance no.3055/2009 published in Official Gazette no.766 bis of November 10, 2009, art.72).

The concept of "identifiable" makes sense in the Order of the Ministry of Public Finance no.3055/2009. There are defined conditions which must satisfy an intangible asset to be considered identifiable. These are:

- is separable –can be separate by entity, can be removed from the records individually, or
- resulting from contractual rights or other legal rights.

The difference between the two types of regulation is that the international standards specify that recognition of intangible assets may be done "only if", while national regulations defines intangible assets in a broad sense, as though explaining and not imposing certain conditions.

It is clarified the situation of recognition of an asset as a tangible or intangible kind, where intangible assets are incorporated in tangible assets. To properly treat such a property, it must be determined by the entity, which element is more significant. If a tangible asset may not be used without that intangible asset, it will be recognized in

the accounts as a tangible asset at the value of tangible asset including the value of intangible asset.

It also covered how to recognize in accounting the intangible assets produced in that entity, obtained in own production. Thus, the research phase and the development phase are defining. The expenditure on research is recognized as expenses in the period in which they are generated, the development costs will be recognized as intangible assets if that qualify for recognition. I mean, if it considers it would generate economic benefits for the entity.

The comparative study of the recognition of expenditure on research and development as intangible assets is presented in the table 2.

Table 2. Research and development expenses

	OMFP 3055/2009	IAS 38 "Intangible assets"
Stage of research	-no intangible asset resulting from research is not recognized. Expenditure on research are recognized as expenses when are generated	-the expenditure is recognized as cost when it is made, since the entity cannot demonstrate that a intangible asset exist and that this will generate future economic benefits.
The development phase	It is recognized as intangible asset originating from development or from the development phase of an internal project only and only if it can be demonstrated that: -these fixed assets are completed technical and are available for use or sale -there is the intention to complete this intangible asset for it could be used or sold -there is the ability to use or sell the intangible asset -it is set the way in which will be generated profits by that intangible asset -technical resources, financial and other resources necessary for the completion of intangible assets are sufficient -the expense regarding the intangible asset is credible evaluated	It is recognized as intangible assets originating from development or from the development phase of an internal project only and only if it can be demonstrated that: -these fixed assets are completed technical and are available for use or sale -there is the intention to complete this intangible asset for it could be used or sold -there is the ability to use or sell the intangible asset -it is set the way in which will be generated profits by that intangible asset -technical resources, financial and other resources necessary for the completion of intangible assets are sufficient -the expense regarding the intangible asset is credible evaluated

There are mentioned examples of research activities:

- activities in the purpose at obtaining new knowledge
- identifying, evaluating applications through research discoveries

- seeking the alternatives to the stocks, systems or services
- elaboration, evaluation and final selection of the determined alternatives new or improved.

The development expenses are amortized over the life of the contract or over the life of utilization, where appropriate. If the development cost has not been fully amortized, alike organizational cost, can not make a distribution of profit, unless the amount of reserves and profits brought forward is at least equal to the unamortized costs.

Subsequent expenditure incurred by an intangible asset will increase the cost of asset only when it is likely that asset to generate future economic benefits over the predicted performance, otherwise they are treated as expenses in the period.

2.3. Basic evaluation rules for tangible assets

The tangible assets are the assets that are used for more than a year and are held for use in the production of goods or services or to be leased to third parties or used for administrative purposes. The new regulation states that although they are purchased together, land and buildings are accounted separately and if there are changes in the value of one it is not affected the value of other one.

The tangible assets held under a lease contract are accounted based on contractual provisions, taking into account the requirements of the principle of prevalence on the judiciary.

There are mentioned the conditions to be met by a lease to be considered a finance lease. These are:

- the title of the property is transferred to the lessor until at the end of the lease;
- there are at the beginning of the contract the certainty that the lessee purchase option will be exercised;
- the leasing contract covers most of the duration of utility of the asset;
- total leasing less accessory expenses, is greater than or equal to the amount that the sponsor has purchased the asset;
- the goods that are subject to such leases are special, so only the landlord can use them without major modifications.

It should be noted that is enough for one of these conditions are met and the lease is considered a financial lease contract.

The interest paid on debts from financial leasing, the lessee will record under accrual accounting, by reflecting periodic into expenses accounts. The lessor will recognize in the same conditions, the interest income.

A new, covered by the Order of the Ministry of Public Finance no. 3055/2009, is accounting for the leaseback contract. It requires an asset sale and acquisition of the same asset leased. Accounting for such transactions is made according with the contractual terms of the lease.

If the transaction results in a finance lease, then this agreement is a means of financing the lessee by the lessor and asset serves as warranty. In this case, will not be

recognized in the accounts of the asset sale transaction, its value being recorded by recognizing the debt on a long term, following the interest and other financing costs are recorded according to finance leases regulations.

In terms of value added tax regime, there are two separate operations, the delivery of the goods made by the lessee and the leasing operation carried out by the lessor, for which the value added tax is recorded by law (The Order of the Ministry of Public Finance no.3055/2009 published in Official Gazette no.766 bis of November 10, 2009, art.102).

If the transaction results in an operating lease, the selling entity should recognize revenue from sales with removal from the register of assets, followed by rental operation in operating leasing.

All information on leasing operations must be submitted by the parts in the leasing contract in the explanatory notes to annual financial statements.

The tangible fixed assets are initially evaluated at the cost determined by the method of entry into the entity. The cost of tangible assets are included in the initial estimated cost to dismantle at the moment of decommissioning and also the site restoration where the asset is placed, whether these amounts can be estimated reliably and the obligations of the entity is established by contract. These costs are recognized in correspondence with an account of provisions.

Subsequent expenditure incurred by a tangible asset, alike the intangible assets, will increase the cost of the asset only when it is probably that asset to generate future economic benefits over the predicted performance and can be measured reliably, otherwise they are treated as expenses in that period.

The cost of repairs to tangible assets incurred to maintain the operating parameters is considered an expense for the period. If the repairs of assets are resulting in increase or improving technical parameters and obtain future economic benefits in addition to those initially set, then these costs should be recognized as a component of the asset.

Fixed assets under acquisition are valued at acquisition cost or production, as appropriate. In the financial statements the tangible assets are presented at the input value less the value of the adjustments (depreciation and adjustments for depreciation).

As regards depreciation of those assets, it is to begin next month after they were put into service until full recovery of their input value. It should be noted that significant changes in the circumstances of use or aging conditions of a property, it may, justifiably, to review depreciation. This new estimate leads to modification of depreciation expense for the remainder period of use.

Allowed depreciation methods are still the familiar - linear depreciation, digressive depreciation and accelerated depreciation. - But it allows depreciation per unit of product or service, when the nature of such asset justifies the use of this kind of depreciation methods. When an entity determines the depreciation method must consider that the depreciation method used should reflect how future economic benefits of an asset are expected to be consumed by the unit.

A tangible asset should be removed from property records on disposal or when no longer expected to achieve economic benefits from exploitation. Where a tangible asset is destroyed, totally or partially, and compensatory amounts to be received from

third parties, for these, the depreciation of assets is recorded at the moment of observation, and the right to receive compensation is recorded on the income account, as accrual.

2.4. Alternative Evaluation Rules – Revaluation

In accordance with the Government Decision 1553/2003, the companies, regardless of ownership, autonomous companies and domestic companies, research institutes and other types of businesses could do the revaluation of tangible assets in their property at 31 December 2003 so that revaluation is included in the financial statements of 2003.

When book value began to differ materially from fair value, due primarily to inflation, it was necessary revaluation of tangible assets, taking into account the usefulness of the property, its condition and market price. Existing tangible assets, excluding fully depreciated tangible assets, the preservation of the past, the current tangible assets or identified off-balance sheet, the tangible assets that have emerged from the period January 1, 2004 and the approval of financial statements, have could be evaluated with the inflation index notified by the National Institute of Statistics for December 2003.

Since 2004 there is no regulation of the possibility for the revaluation due to inflation, leaving open the possibility of revaluation of tangible assets.

The Order no. 1752/2005 is the first Romanian regulatory order allowing the rules of alternative valuation of tangible assets in accordance with european directives. The purpose of revaluation is to bring the book value of fixed assets at their fair value or a value as close to the closing date of the financial year. If revaluation takes place for tax purposes, which often met for construction to benefit from lower tax rate, this will be mentioned in the explanatory notes to annual financial statements.

Same legal regulation defines fair value as “the amount for which the asset could be exchanged freely between the parties in informed trading in a price determined objectively” (The Order of the Ministry of Public Finance no.1752/2005 published in Official Gazette no. 1080 bis of November 30, 2005, art. 53 alin.2).

According with the Order of the Ministry of Public Finance no. 3055/2009, at the end of the financial year is allowed a revaluation of existing tangible assets, with registration in the accounts and even presenting the results of the revaluation in financial statements prepared for that year. The depreciation for these assets will be recalculated following the year since the revaluation.

If a fully depreciated tangible asset can be used, it will be revaluated and will be new term economic uses which will meet the anticipated time continue to be used. All this elements, revaluation and the recalculation of the depreciation will be presented in the notes annexed to the financial statements and also their impact on the profit and loss.

Revaluation of tangible assets will be at fair value at the date of the financial statement, value based on evaluation made by professionals skills in evaluation, members of a professional associations, recognized nationally and internationally.

The calculation of accumulated depreciation at the moment of revaluation may be made in one of the following ways: recalculation proportional with the change of the book value of assets, so that, after revaluation, the book value and revalued amount to be equal; to eliminate from the gross carrying amount of depreciation and net worth recognition at revalued amount of tangible asset.

All elements belonging to the same group of tangible assets are revalued simultaneously for reporting annual financial statements will not be a combination of costs and values at different dates. If the fair value of tangible assets can not be determined, the asset value in the financial statements should be determined during the last revaluation less accumulated adjustments of the value.

The difference between the initial value and fair value determined by the revaluation will be recognized in the accounts as a separate item in equity. Transfer to the reserve accounts from revaluation will be made only if the revaluation surplus is considered a realized gain. If the revaluation result is an increase from the net value will be treated as an increase of the reserve from revaluation if there was a decrease previously recognized as an expense related to that asset. Will be treated as income if previously acknowledged an expense with the decrease of the value of that asset.

If the result of revaluation is a decrease of the net book value, this is treated as a reduction of the reserve from revaluation if it exists, otherwise a full amount of depreciation expense or the uncovered part of the revaluation reserve. The reserve from revaluation may be distributed only when the asset was sold, in which case the revaluation surplus is actually realized gain.

Revaluation of tangible assets must be made sufficiently regular for the financial statements as they are set to a value as close to fair value and the explanatory notes should contain information on their historical value and valuation methods used.

2.5. Revaluation of tangible assets seen in fiscal terms

Starting January 1, 2007, the tax code provides that the determination of land's fiscal value and the fiscal value remained undepreciated for the other tangible assets will be considered both revaluations made after 1 January 2007 and the remainder outstanding from revaluations performed during the period January 1, 2004 to December 31, 2006, presented in the financial statements ended December 31, 2006.

There is indicate that excess from the revaluation of tangible assets, which was previously deductible, shall be taxed at the moment of change in the use of the reserve - delivery or loss recovery. The Government Emergency Ordinance 34/2009 introduces an exception to the general rule. I.e., the reserves from revaluation of fixed tangible assets made after January 1, 2004, which are deducted in calculating the gross profit through tax depreciation it will be taxed at the same time with the deduction of the tax depreciation

The Government Decision no. 488/2009 brings further details of this exception to the general rule. Therefore, from January 1, 2009, the differences from revaluation for the revaluations made after 1 January 2004 are taxed at the time of recording depreciation expense of the tangible asset.

3. CONCLUSIONS

Watched compared the evaluation of tangible and intangible assets, having regard to the regulation of basic and the alternative, we notice that OMFP 3055/2009 put very close the national regulation with the international standards of accounting both in terms of definitions and conditions for recognition in the accounts of them.

In terms of basic evaluation rules, the conditions for recognition in the accounts of intangible assets were presented compared above. For the tangible assets, after studying criteria which must meet an asset to be recognized as an intangible asset, notice the difference between the two kinds of regulations, national and international. If national regulations *require* the use during a period more than one year, the international standard specifies that *is possible* to be used during the more than one year period.

The alternative evaluation treatment, covered by national legislation *allows* revaluation of tangible assets at the end of the fiscal year for the presentation in the financial statements the fair value of fixed assets such as the results of reevaluation. The International Standard specifies that subsequently initial recognition, tangible assets *must be* revaluated at fair value at the reevaluation moment reduced by adjustments for depreciation and amortization. Both kinds of regulations stipulate that revaluation must be made with sufficient regularity so as not exist major differences between the amount recorded in the financial statements and their fair value balance at the end of fiscal year.

We can conclude that because of this last national regulation, we adopted legislative changes which put us very much closer to international regulations on the matter and that professional reasoning can be applied in many cases without being limited to strictly follow the line without a specific alternative for intangible assets evaluation and tangible fixed assets.

REFERENCES:

- [1]. The Government Decision no. 1553/2003 on revaluation of tangible assets and setting the input value of fixed assets, published in Official Gazette no. 21/ January 12, 2004
- [2]. Law 571/2003 regarding the Fiscal Code published in Official Gazette 927 of 23 December 2003 with subsequent amendments
- [3]. The Government Decision no. 44/2004 for approving the Norms for applying Law no. 571/2003 regarding the Fiscal Code published in Official Gazette no. 112 of February 16, 2004
- [4]. The Order of the Ministry of Public Finances no. 1752/2005 on accounting regulations with European directives published in the Official Gazette. 1080 bis of November 30, 2005
- [5]. The Government Emergency Ordinance no. 34/2009 on the 2009 budget rectification and regulation of financial and fiscal measures published in the Official Gazette. 249 of April 14, 2009

- [6]. The Government Decision no. 488/2009 for Methodological Norms for applying Law No. 571/2003 on Fiscal Code, approved by Government Decision No. 44/2004 published in Official Gazette. 286 of April 30, 2009
- [7]. The Order of the Ministry of Public Finance no.3055/2009 regarding the accounting regulations according with European directives published in Official Gazette no.766 bis of November 10, 2009
- [8]. IAS 16 “Tangible assets”
- [9]. IAS 38 “Intangible assets”

EUROPEAN FISHERIES FUND – NEW DEVELOPMENT OPPORTUNITIES FOR ROMANIA

CLAUDIA DIANA SABĂU-POPA *

ABSTRACT: *This article analyses the financial support given by the European Union to the member states on the purpose of enduring development of their fishing area, as well as the new development opportunities for Romania. The main financing instrument of the common fisheries policy is the European Fisheries Fund, which is managed alike the structural funds. This fund supports the European fisheries and aquaculture area in its effort to adapt a new fleet, whose competitiveness must be consolidated, and encourages the application of some measures meant to protect and improve the environment. In the case of Romania, the increase of the European Fisheries Fund's absorption has become a priority for the Managing Authorities of this Fund, in order to stimulate the development of the Romanian market for fishing products, a market having a great potential.*

KEY WORDS: *fishing; aquaculture; enduring development; European fisheries fund; financial allowances*

JEL CLASSIFICATION: *F36, Q22*

1. THE COMMON FISHERIES POLICY AND ITS RELATION WITH THE COMMON AGRICULTURAL POLICY

According to the Treaty of Rome, fish has been defined as an "agricultural product" and the area of fisheries has been initially subordinated to the common agricultural policy. However, due especially to the initiation of negotiations regarding the adhesion to the European Community of some states, for whose economical activities fishing was a very important area and who disposed of significant territorial water (United Kingdom, Ireland, Denmark and Norway), in 1983 there has also been adopted at community level a *separate policy of the fisheries area*.

The common policy in the fisheries area relies on the common organization of the markets, agreeing that all European Union's fishermen shall have equally access to all water of the member states. This policy pursues to reach a correct balance between

* Lecturer, Ph.D., University of Oradea, Romania, mes_carla@yahoo.com

supply and demand of European fishermen and consumers interest. In order to preserve the Community's fishing resources, the European Union may provisionally interdict fisheries in different regions or for certain species. In order to preserve its continually decreasing resources, the European Union established a maximum number of fish that can be caught from each species and set up a system of quotas similar to that used by the Common Agricultural Policy (Ghica, 2007). The amplification of the issues in the field of fisheries was also linked to the enlargement of the European Union, first of all to North, including Denmark and Ireland and then to South, including Greece, Spain, Portugal, leading at the end of the '80s to a doubling of the number of fishermen.

At the beginning of the '90, the common fisheries policy has been partially reformed, by means of some measures targeting the reduction of the fishing capacity of the European Union, as the analysis showed the persistence of the excessive fisheries and the continual exhaustion of fishing stock in the European water. In 1993, when there has been created the Financial Instrument for Fisheries Guidance, included in the category of structural funds, the Common Fisheries Policy becomes part of the regional development policy. Since 1999, fishing has been included in the reform strategy of the Common Agricultural Policy, functioning according to the objects and priorities established for this policy.

In 2002, when this policy was again reformed, there were introduced measures of protection and conservation of the aquatic resources, as well as measures of reduction of the impact of fishing activities on the marine ecosystem. The reform in 2002 identified a series of problems specific to the fishing area, such as the exaggerated increase of the European fleet in comparison with the decreasing fishing resources and the lack of confidence between the interested and regulator parts. This reform assumed as priority the efficiency of fishing activities, offering a modest standard of living for those practicing these activities and taking into account the consumers' interests. However, the fishing industry remains generally less profitable as it should be, because of the excessive and illegal fishing causing still great losses for many fishing resources and the still too great dimension of some fleets in comparison with the available resources (European Commission, 2008b).

In order to consolidate the controls in this area, in 2007 there has been created a community control agency in the fisheries area. In the current financial framework, the common fisheries policy, known also as "Blue Europe" is again a separated policy, being excluded from the common agricultural policy. The objects of the Common Fisheries Policy are the following: protection of the fish resources against the excessive fishing, guarantee of a certain income for fishermen, periodical supply for consumers and processing industry at reasonable prices and the lasting exploitation of the aquatic resources from biologic, ecologic and economic point of view. The main action areas of the Common Fisheries Policy are: establishing standards guaranteeing that the European Fisheries area endures and doesn't harm the marine environment; putting at the national authorities disposal of the instruments needed for these standards to come into force and sanctioning the contraveners; monitoring the European fishing fleet's dimensions and preventing its enlargement; granting financial and technical support for initiatives being able to contribute to the lastingness of this area by means of the European Fisheries Fund; taking part to negotiations in the name of the European

countries within the international organizations and the relations with the third countries from all over the world; supporting the producers, the processing factories and the distributors in order they might get a fair price and guaranteeing the quality and safety of the marine products; supporting the development of a dynamic area of the aquaculture (farming of fish, seafood and seaweeds); financing scientific research and data collection to guarantee a solid basis for the elaboration of policies and decisions.

For the community fishing industry may survive and flourish in the 21st century, a balance must be restored between the economic interests of this area and the long term interests of the society, regarding the existence of healthy water and prosperous fishing resources. This is the reason why the European Commission initiated in 2009 a reform of the common fisheries policy, disposing of a public consult on different subjects, actually an analysis of the achievements and the deficits of the current fisheries policy, in order to identify potential ways of future actions and to increase the efficiency regarding the guarantee of economic viability of the European fleet, conservation of fish stocks, harmonization with maritime policy and supplies on the market of the quality food. The European Commission has the obligation to review the conservation elements of the Common Fisheries Policy and those concerning the fleet until 2012.

2. THE EUROPEAN FISHERIES FUND – FINANCIAL INSTRUMENT OF THE COMMON FISHERIES POLICY

In order to reach the common fisheries policy's objects, the European Union offers financial support for the restructuring of the fishing area. The governments of the member states have also the possibility to offer subsidies for the fishing area, provided that it shall not distort the competition within member states.

Financial Instrument for Fisheries Guidance (FIFG) created in 1993, at the same time with the adherence of Finland and Sweden, was meant to contribute to the establishment of a balance between the fishing resources and their exploitation, to the reinforcement of the competition of the productive structures and of the viability of producer societies, to the revival of the regions implied in these activities. The Financial Instrument for Fisheries Guidance contributed both to the creation of the regional development policy and the common fisheries policy. This fund covered the community programs 1994-1999 and 2000-2006, the quantum of financial assistance being forecast at 4.02 billion euro for the lately ended period.

During the program period 2000-2006, the assistance areas financed by the Financial Instrument for Fisheries Guidance were the following: transformation and commercialization of fish products (662 million euro); modernization of the fleet (227 million euro); construction of new ships (482 million euro); support in the effort to adapt the fishing area, protection of marine regions, promotion of the fishing products (2.246 million euro); aquaculture development (351 million euro); granting facilities for fishing ports (54 million euro). The financial allowances for the Financial Instrument for Fisheries Guidance were related to the size of beneficiary population, the size of the territory and its objects. During the period 2000-2006, the greatest beneficiary of this fund was Spain (44,4% of FIFG), followed at a great distance by

Italy (10,2% of the total FIFG) and France (6,9% of FIFG). Though in some areas, FIFG had an undeniable success, in other areas the results were ambivalent. Some financing priorities such as aquaculture or economic diversification in the case of coastal zone communities registered a quite lower rate of absorption, while others were in conflict (reduction of the fishing efforts and capacities versus the support of modernization and the renewal of older parts of the community fleet). Thus, one decided that, instead of the FIFG enlargement, one shall introduce an entirely new financing instrument of the common fisheries policy. As a result, the European Fisheries Fund (EFF) has been created, coming into force on the 1st of January 2007, its general rules being established by the Commission Regulation (EC) no. 498/2007. This regulation offers financial support in area such as the fleet's reorganization, lower scale fishing, harbour installations, enduring aquaculture, as well as the transformation and commercialization of fishing and aquaculture products.

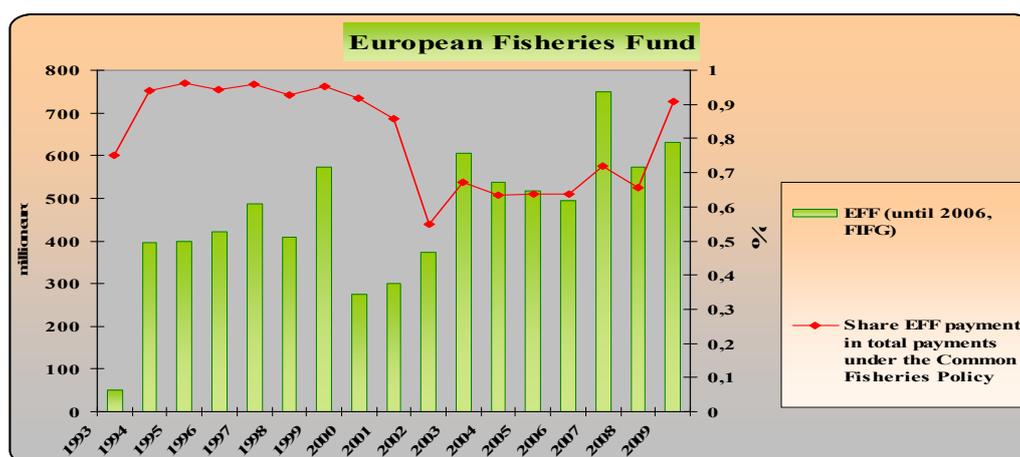
EFF is managed as the structural funds. This fund supports the European area of fishing and aquaculture in its effort to adapt a fleet, whose competition must be consolidated and encourages the application of certain measures meant to protect and improve the environment. EFF will come initially into force during the period 2007-2013, having a total budget of about 4.3 billion euro. The financing possibility is open for each branches of this area, both for fishing on the sea and on internal water, for aquaculture companies, organizations of the producers or the transformation or commercialization of products, as well as for the fishing regions. The allocation decision of these funds, according to different defined priorities is the obligation of the member states, on the basis of a national strategic plan, realized in collaboration with the European Commission. The national strategic plans are then transposed in operational programs approved by the European Commission before coming into force.

The priority axes of EFF intervention are the following:

- Reaching the main objects of common fisheries policy, mainly the assurance of a lasting exploitation of fishing resources and the setting of a stable balance between these resources and the capacity of community fishing fleet. Thus, provided a member state decides to cancel the fishing opportunities, the ships ceasing their activities benefit from a permanent or temporary support;
- Aquaculture, processing and commercialization, fishing in internal water; there are given supports for the diversification of new aquaculture species and species offering good commercial perspectives, ecologic aquaculture, processing and commercialization of fishing and aquaculture products;
- Common interest measures. These represent activities that are not generally supported by private area and may comprise the protection and development of the fauna and aquatic flora, harbours, shelters and docks for ships, development of new commercial and promotion campaigns;
- Enduring development of fishing areas. The financing of these activities bases on local development strategies and pursues the support of local communities in the reduction of their economic dependence on fishing catches;
- Technical assistance. This factor implies studies, reports, information and other activities regarding the application of operational programs.

Many of the European Fisheries Fund activities continue the FIG practices, but some of them are new. The new Fund introduces a series of innovating mechanisms, as an answer to the evolution of the industry's necessities, such as the support measures of the application of recovery and encouragement plans of some new more selective fishing methods and the financing methods of local strategies for an enduring development in the fishing areas. Moreover, the member states benefit now from simpler implement regulations and a greater flexibility concerning the application of eligibility rules and all financial community supports are directed by means of a single national EFF program, yet not several different past programs (European Commission, *Common Fisheries Policies. User Guidance*, 2008).

Another news is that financing is directed at a 75.55% degree to "convergence" regions, whose economic situation is under the European Union's average level. In the current programming period the greatest beneficiary of the European Fisheries Fund is still Spain (26% of EFF), followed by Poland (17% of EFF) and Italy (10%). Romania will receive 5.35% of the EFF budget, directed entirely to "convergence" regions. In figure 1 is presented the evolution of annual payments made of the main financing instrument of the common fisheries policy, EFF, representing on average 80% of the total payments made by the European Union within the common fisheries policy.



Source: data processed by the author according to the Annual Reports of the Court of Auditors and the European Union's annual budgets

Figure 1. The evolution of annual payments made of EFF during the period 1993-2009

During the period 1993-2009, the annual payments within the common fisheries policy increased on average to 598.3 million euro and the EFF payments (FIG until 31.12.2006) to the member states were on average 458.2 million euro. At the same time, the annual payments within the common fisheries policy represented, in the same period, 0.66% of the total payments made by the European Union to the member states, an insignificant percentage reflecting the low importance of this policy within the European Union's common policies. In July 2008, the Council adopted certain derogations for a period of 2 years from the regulations of the European Fisheries Fund, in order to facilitate the reorganization process of the fleet, as an answer to the

global economic crisis, a serious matter because of its consequences. These derogations included the creation of adaptation programs of the fleet offering additional support to encourage significant reduction of fuel consumption in the most intensive areas of the fleet.

3. NEW DEVELOPMENT OPPORTUNITIES FOR ROMANIAN FISHERIES AREA

In Romania, fishing and aquaculture occupied and still occupies an important role in the fields having national interest. Though the fisheries area contributed and still contributes in a low measure to the GDP, the importance of this area is due especially to its social role for the population in the coastal region (the resulted financial resources support a significant part of the population), by means of its food resources potential. The strategic outlook presented in the National Strategic Plan for Fishing is expressed as follows: *"A competitive, modern and dynamic fisheries area, based on enduring fishing activities and aquaculture taking into accounts the aspects regarding the protection of environment, social development and economic welfare"*. The implementation of this strategic outlook can be measured according to the Fisheries Operational Program, by means of the following impact indicators: the increase of the competition area (increase of the added value, increase of the productivity); the created work places or those maintained in the three sub-areas (the fleet of the Black Sea, aquaculture and fishing in the internal water), as well as in the fish processing industry; the adaptation of fishing capacity.

The Fisheries Operational Program 2007-2013 is the main financing source, but it doesn't represent the only instrument disposing the Romanian authorities of for this area of the economy. In order to contribute to the implementation of the strategic outlook, the Operational Program set four general objects: competition development and lastingness of the primary fisheries area; market development for fishing products; support of enduring development of the fishing area and the improvement of living standards in these regions; support of a proper implement of the OP within CFP.

According to the swot analysis made by the program responsible Romanian authorities, Romania must adapt its fishing fleet so that an enduring balance exists between the fishing capacity and the available resources. Romania wants to keep a minimum number of ships, estimated at 12-13 modern and permanent ships. The fishing fleet must be renewed and modernized in order to meet the market's necessities, to improve safety on the sea and the conservation conditions on board of the fishing products. There are also required facilities for the development of products quality before their selling, better distribution channel, as well as the promotion of the products resulting from the fishing in internal water. One considers that the Romanian fishing products market is developing, the increase of fishing products consumption representing a necessity that must be satisfied by means of the reduction of import dependence and the increase of fishing products volume on the internal market.

By means of the SAPARD program, there has been financed the construction of new fishing products processing unities, but their production capacity is unable to cover the market's demand, resulting a necessity of new investments. The diversity of

the processed fishing products is still quite limited. The main development opportunity represents the creation of some "modern" high quality fishing products and demand by the consumers, such as the fishing products which can be easily prepared and consumed. At a lower scale, the coastal fishing, the fishing in the internal water and the aquaculture, the increase of the added value by means of the processing, the direct commercialization and certain supply activities represent an opportunity for the primary producers. For the moment, the Management Authority for the Operational Fisheries Program is the Fisheries General Direction within the Ministry of Agriculture and Rural Development. These responsibilities have been transferred from the National Fisheries and Aquaculture Agency to the Ministry of Agriculture and Rural Development in August 2009, in order to make efficient the fisheries funds absorption. On the 16th March 2009 there was not even 1 euro absorbed from the amount of 230 million euro granted to Romania, because both of the legislative gaps and the difficult processes to contract the community funds. In the following table it is presented the financial allowance on the prior axes for the Operational Fisheries Program:

Table 1. EFF allowance on the prior axes for the OFP 2007-2013 (million euro)

Priority	Total public contribution	EFF Contribution	National contribution	EFF co-financing rate
Axis 1: Measures of adaptation of the community fishing fleet	13,3	9,97	3,32	75%
Axis 2: Aquaculture, fishing in internal water, processing and marketing of fishing and aquaculture products	140	105	35	75%
Axis 3: Measures of common interest	40	30	10	75%
Axis 4: Enduring development of fishing areas	100	75	25	75%
Axis 5: Technical assistance	14,32	10,74	3,58	75%
Total	307,62	230,71	76,9	75%

Source: Operational Fisheries Program 2007-2013, Romania, p. 54

We can remark that the major part is granted for axis 2, especially to stimulate the investments in aquaculture and for axis 5, the selection measure of local fishing groups. The degree of financial support by EFF is maximum 40% of the value of the projects regarding the capacities increase and the creation of production unities. For the projects regarding the investments for group interest, instructions and promotion actions, as well as for pilot project, the support degree is between 80-100%.

Table 2. Annual financial planning for Romanian Operational Fisheries Program (euro)

Year	2007	2008	2009	2010	2011	2012	2013
EFF	15127527	22157050	30156234	36391468	39257052	42262575	45362301
Total	230714207						

Source: Operational Fisheries Program 2007-2013, Romania, p. 54

The challenges of the fisheries area in our country are represented by the continuation of the adaptation process of the Romanian area of fish processing and commercialization at European Union standards and the products development being not only competitive with the import products on the national market, but also finding customers abroad, as long as Romanian work force is cheap and make this industry very competitive.

4. CONCLUSIONS

During the last years, the common fisheries policy registered much progress. Financing has been redirected for the support of industry during the transition period and for the support of coastal communities during the period of their economic structure diversification. However, there exist still many areas to be significantly improved. The fleet's capacity still exceeds a potential enduring harvest, thus encouraging the excessive fishing, the under-reporting and the illegal or law limit activities. At the moment, a challenge for this policy represents its possible entire integration in a wider perspective of a cross maritime policy. At European Union level there exists also a concern for a better ecological and environmental condition of the seas and oceans, as well as for a better support of the coastal communities affected by this new approach regarding fishing management.

Common Fisheries Policy is not a set of strict regulations, but a dynamic framework in which member states and interested parts may identify and act to reach the desired fishing industry. In the case of Romania, a priority for the managing authorities of this fund has become the increase of the absorption level of the European Fisheries Fund, in order to stimulate the development of the Romanian market for the fishing products and aquaculture having a great potential.

REFERENCES:

- [1]. Ghica, L.A. (coord.) (2007) *Enciclopedia Uniunii Europene*, Editura Meronia, Bucharest
- [2]. Prisecaru, P. (2004) *Politici comune ale Uniunii Europene*, Editura Economică, Bucharest
- [3]. Council Regulation (EC) No 1198/2006 of 27 July 2006 on the European Fisheries Fund
- [4]. European Commission (2008a) *CFP in numbers – Basic information regarding common fisheries policy*, Luxemburg, available online at <http://ec.europa.eu/fisheries>
- [5]. European Commission (2008b) *Common Fisheries Policy. User Guidance*, Luxemburg, available online at <http://ec.europa.eu/fisheries>
- [6]. Ministry of Agriculture and Rural Development Operation Fisheries Program, Romania, 2007-2013
- [7]. Council Regulation (EC) No 2371/2002 regarding the enduring conservation and exploitation of fishing resources within the common fisheries policy
- [8]. Council Regulation (EC) No 1263/1999 of 21 June 1999 on the Financial Instrument for Fisheries Guidance
- [9]. Commission Regulation (EC) No 498/2007 on the 26th of March 2007 establishing some detailed standards for the application of the Council Regulation (EC) No 1198/2006 regarding the European Fisheries Fund

THE NEED FOR STATE IN THE ECONOMY- EPISTEMOLOGICAL APPROACH

ANCA-ȘTEFANIA SAVA *

ABSTRACT: *The aim of this paper is to discuss the need for state in the economy, in an epistemological viewpoint. It presents in a critical manner the ideas on the state of the mercantilism and physiocracy representatives, of the classical and Keynesian economists and of the so-called current „the new liberal orthodoxy”. It is noticed that the need for a minimal state, as a condition of proper functioning of the society, has been justified even by those who have criticized it (classical liberals), being recognized that a society can not be conceived anarchic and utopian. If during '29-'33s, the philosophy of laissez-faire was replaced by the Keynesian doctrine, and '70s have placed the welfare state in a crisis of legitimacy, starting from 2008 we can talk of a resurgence of the Keynesian paradigm, according to which government intervention is seen as a way to stimulate the economic recovery.*

KEY WORDS: *Welfare-state; the minimal state; Keynesianism; macroeconomic policy; School of economic thought; classicism; monetarism*

JEL CLASSIFICATION: *I38, H10, E12, E61, B10, B12, B52, E61*

1. THE NEED FOR STATE INTERVENTION IN THE ECONOMY FROM THE MERCANTILISTS AND PHYSIOCRATS' PERSPECTIVE

Mercantilists were the first which made reference to the role of the state in the economy, paving the way for the assertion of physiocracy and classical liberalism doctrine. This particular school of thought specific for the sixteenth and seventeenth centuries has dominated the economic life in the theoretical and practical matter, until the mid-XVIII century. A first form, called the early mercantilism (XVI century and decades from the first half of the XVII century) campaigning for administrative measures imposed by the state to restrict and even ban the import of goods to stimulate exports, leading to an increase in company profits, in the stock of currency and precious metal.

* *Ph.D. Student, University of Iași, Romania, sava.anca@yahoo.com*

Industrialist mercantilism, founded in France by Jean Bodin, Montchretien and Colbert, provides that political power can not be linked only by commercial expansion, the main purpose being the acquisition of precious metals by practicing a policy of industrial development, based on state regulations and prohibitions. Thus, state subsidies have the task to develop manufacturing, together with rigorous application of protectionist policies.

Opening to the classic liberal economic doctrine was made by the English commercialist mercantilism, theorized primarily by Thomas Mun (1571-1641), Josias Child (1639-1690), William Petty (1623-1687). Thomas Mun recommended to the British state increasing the imports of goods since leaving money abroad can make a much greater wealth for England, governed in a stock of currency and higher precious metals.

In turn, physiocrats, followers of the general economic theory based on natural order, have been held fairly in terms of state intervention in the economy, believing that people are not yet ready for a democratic exercise of quality, so that the form of government is conducive to a strong monarchical state, as far as ensuring compliance with natural laws, but a state with some legislation.

State of natural order is logically prior to history and civil society, wants to be defended what is considered to be natural law. In short, the state functions are to: *maintain the natural order*, referring to property; *instruction*, so that people will be able to know the natural laws, to establish a social order for personal happiness and prosperity; *achievement of public works*, particularly infrastructure contributing to labor efficiency in agriculture (Popescu, 2009, p.159).

According to physiocratic school, the economy can lead to a harmonious order if there is no intervention in the economic cycle, if any regulation is waived, if people are left free, counting on the idea that each individual will seek to work towards completion of general interest. The wealth's surplus is only released from the branch of agriculture, is precisely why their philosophy is based on a single tax, on net agricultural product, which is divided into different proportions between class owners (sovereign, landowners, clergy, military, government).

2. THE NEED FOR STATE INTERVENTION IN THE ECONOMY FROM THE CLASSICAL SCHOOL PERSPECTIVE

Classical School precursor is considered to be Adam Smith (1723-1790), author of "The Wealth of Nations" (1776), whose economic theory has a psychological basis, namely self-interest. His liberal doctrine advocates for the known principle "laissez-faire, laissez passer, le monde va de lui même", founded by physiocrats on natural self-regulation of the economic system, necessary for production factors to move freely from one sector to another, and thus free play of individual activities, to achieve spontaneously the general interest of society.

However classical economists belonging to the utilitarian tradition recognize the need for state intervention where the market economy functions can not be made spontaneously and believe that there should be limits on state action concerning initiative and individual liberalism. Smith, but also followers of liberal doctrine,

including David Ricardo, Jean Baptiste Say, Bastiat Francois think that the socio-economic system can not function only in the case of creating a public institutional apparatus. In other words, intervention is permissible, but with limitations on the field of public intervention on private initiative.

After reading the Adam Smith' book, "An Inquiry into the Nature and Causes of the Wealth of Nations", it is noted that he does not preclude state intervention in any way, but only if advocates actions "aimed at promoting the general welfare", if increases happiness and prosperity of the community, defending the company jurisdiction. Smith is against restrictions on imports and incentives for exports, against governmental regulation designed to protect local industry against competition and against government spending with unproductive purposes.

In his book, Adam Smith specified types of expenditure made by liberal state, namely: public defense costs, expenses for the administration of justice, public works spending and for public institutions and another type of expense intended to support the state rank.

Public defense expenditure was treated as a first duty of the state to protect members of society of violence and damage to other persons and societies and was more expensive as the society became more civilized. Adam Smith noted that in modern war, higher defense spending advantage wealthy and civilized nations compared to the poor and barbarous, which were favored in ancient times. He stresses the role of undisputed standing armies, well disciplined, the country's defense against barbarian invasions from the neighbors (Smith, 1965, p.159).

A second category of expenditure is the expenditure for the administration of justice, for protection against unjust of other society members. Such costs, as those for public defense, impose a general contribution of members, although Adam Smith criticized this, saying that "expenditures for the administration of justice could be done very fairly through specific contributions of one or another or both categories, as they require different occasions, as fees paid to courts" (Smith, 1965, p. 235).

A third state debt, as presented by Adam Smith, is focused on making expenditure for public works and public institutions, which bring more benefit to society, given that individuals can not report and maintain, because profits would not cover. Adam Smith noted that the expenditures incurred by the state were not absolutely necessary covered in what is called the public revenues, but on account of special revenues, as fees for vehicles passing over a road, bridge or waterway.

State was making expenses for education and for people of all ages, but such costs sought an instruction, especially religious invoice. These costs took the form of a sharecrop basis or land tax, a wage or a stipend granted to the representatives of this doctrine.

Also, Smith talks about a number of expenses necessary to bring the sovereign ability to perform its various duties, to support his rank. He asserts that higher costs are necessary for a monarch, compared with the head of state in a republic.

Regarding taxes, classics believe they should aim to cover public expenditure, not a barrier to trade.

Moreover, as stated in Onofrei (2000), liberals John Stuart Mill and Adolph Wagner bring major amendments in the doctrinal position of their predecessors. They

advocate the desired state intervention, showing how the state should interfere in the economy, but not how it is the intervention in reality. They reached this view following the first adverse event of industrial liberalism, such as the unequal distribution of wealth and welfare in general, which in addition to psychological discomfort created, and costly economic system as a whole. Mill proposes to allow people the right to dispose of their goods, but limit the right to inherit. He believes in the possibility of social improvement through government intervention.

Also, Wagner introduced the term “*state - the distribution regulator*” following the policy of creating public financial resources and because of its direct participation in the production of material goods. The economist refuses to give credit to the liberal conception that considers state only as “producer and legal protector”, supporting that the harmony of natural law is contrary to the facts and leads to crisis and misery of workers.

Of real interest is the concept promoted in the field of taxes, considering that the tax is economically justified only if after prelevation the society creates wealth.

Very suggestive is the opinion of professor Ion Pohoată, according to whom “[...] classics of economic science unanimously agreed that without the state (meaning government), society life turn into chaos and that its presence is necessary for anyone is willing to consider a possible life lived beyond anarchy and utopia” (Pohoată, 2001, p.104).

3. THE NEED FOR STATE INTERVENTION IN THE ECONOMY FROM THE KEYNESIANISM PERSPECTIVE

In the inability of capitalist economy to self-regulating through market mechanism of free competition, J.M. Keynes (1883-1946), a British economist whose ideas, called Keynesian economics, had a radical impact on both modern economic and political theory, as well as on many governments’ fiscal policies, proposed the solution of government intervention to prevent and correct imbalances that had arisen. The economic crisis of overproduction in the years 1929-1933 contributed to the abandonment of liberalism thesis and establishment of the economic interventionism.

In the modern conception assigned to the state, it is no longer a mere consumer of resources for traditional tasks, but can be seen as an active partner for economic and social life.

The state must fill weaknesses in private sector investment, because “market alone is not able to show entrepreneurs what it is the right level of investment (the one corresponding to full use of labor)” (Guerrien, 1993, p.141).

Social democratic governments emphasizing the protection offered by state to social disadvantaged groups favor the intervention through public spending and thus achieve a higher redistribution between members of society. Now prevails the idea that the role devolving upon the welfare state contributes to a largely redistribution of the product created.

In his famous book, “The General Theory of Employment, Interest and Money”, John Maynard Keynes states for state intervention in the economy (since they

want an optimum balance), taking into account the stabilizing role of public spending and investment multiplier.

To stimulate investment, Keynes talks about the possibility of public action by the central bank, the level of money market interest rate, but also directly, through grants, purchases of goods and services by governments etc. Thus, in times of economic downturn, the central bank takes measures to reduce interest rates, which will support loans, will increase consumption, increase aggregate demand, employment of workers and thus will ensure the economic recovery.

Through fiscal-budgetary policy, according to Keynes, in periods of economic recession, the state must reduce the rate or waive certain taxes to increase consumer demand and investment and on public spending, will increase purchases of state of social and cultural investment, orders, counting on their multiplier effect in the economy. During the economic expansion it is exactly the reverse situation. The effects of these policies on the state budget are different, depending on the business cycle phase. During the recession, by cheap money policy, increase state spending and reduce revenues, ending with a budgetary deficit. On the long-term, such a budget has also negative effects on the economy and leads to lower global demand, with few sources to cover their costs. Conversely, during economic expansion, through a money expensive politics, state revenues increase and costs are reduced so that it will be a budgetary surplus.

In the General Theory, Keynes opposes to state socialism, to moving production tools in public ownership, stating that “a fairly comprehensive socialization of investment will prove the only way to ensure a high occupancy close to full employment” (Keynes, 1970, p.380). Keynes considers even that strengthening the economic role of the state, “is the best guarantee of personal freedom, meaning that it highly extends, compared with any other system, the field expressions of personal performance” (Keynes, 1970, p.381).

Keynesian thinking had a practical confirmation, as it is evident by the U.S. promotion of the New Deal, then in the postwar period, and by other countries through active involvement of state and promotion of government policies of regulating the economic processes and proportions, including the macroeconomic and social protection.

P.A. Samuelson reconsidered Keynesian and classical ideas, arguing that economic theory must combine with the free market mechanisms of state regulation in a single facility. Therefore, according to his opinion, the economy is not governed strictly by the ratio of market supply and demand, but also contains elements of public control.

Samuelson says: „As the country’s main economic entity, the State, through its public expenditures, has an important role in determining patterns of consumption, investment and profits in the economy” (Samuelson, et al., 2000, p.368). In this regard, he calls for state action to develop programs that have impact on the market and on the mixed economy, and in their central place to put the one concerning public works in order to increase demand, but also to ensure the acquisition of best part of available labor.

Moreover, in the U.S. in the '80s and '90s, federal funds for highway road construction led to the rural and urban development and social protection system allowed an increase in revenues for the elderly, enabling them to move and set in different parts of the country, thus creating the so-called "havens of pensioners" in Florida and Arizona.

4. THE NEED FOR STATE INTERVENTION IN THE ECONOMY FROM THE PERSPECTIVE OF NEW LIBERAL ORTHODOXY

Monetarists, representatives of the supply-side doctrine, those of Public options School, of the Austrian School, state for the need of state in the economy, which remains the guarantor of collective identity. An opponent at state intervention remains the Libertarian School.

Outstanding representative of the monetarism, Milton Friedman admits the state presence in the economy, considered "essential so as to establish rules for the game and as arbitrator in interpreting and applying written rules" (Friedman, 1995, p. 29). The economist campaigns for what is called the minimum state, whereas its presence standardize: "by imposing uniform standards in education, the construction of roads, sanitation, central government is able to compete at improving performance in many areas even to raise development environment of all communities" (Friedman, 1995, p. 18). To prevent this, Friedman believes that the scope of government should be limited to maintenance law and order, implementation of private contracts, creating competitive markets and that government power should in turn be dispersed.

Also, A. Laffer, M. Feldstein, A. Gilder believes that in what concerns public spending for social protection, it must be limited to the possibility of expression of incitation to work, save and invest, to thus reinvigorate the economic and productive activity. They believe that social protection has the effect of reducing the cost of unpaid time, this is the way they condemn any policy to regulate demand and desire to demolish the welfare state to restore the dynamism necessary to the free initiative, the only one creating wealth. Meanwhile, the taxation level and contributions, income earnings and benefits levels allow welfare recipients to receive income without work.

Galbraith (1997) stresses the need for state intervention to advance society through appropriate measures to be implemented during periods of stagnation or negative growth for creating jobs. It also emphasizes the need for government support for education, which "has a rather political and social role even a greater intrinsic justification" (Galbraith, 1997, p. 66).

Also, public or collective choice school, with its particularly representative, James Buchanan, specific for the '50s, put in the center of the discussion the state, electoral systems, political parties, pressure groups, bureaucracy, etc., being concerned with the demonstration that increased public spending does not result from the demand "pressure" coming from private operators, but from the bidding behavior of government and public policy makers.

They advocate for reconsidering the political system, in particular the electoral system, which leads, according to the theory of "median voter" to a inadequacy of public spending relative to population needs. According to this school, not only that the

state should limit its involvement in the economy, but he must learn to properly manage and, moreover, to balance the budget.

Buchanan (1997) speaks implying the concept of ideal state, civilized, protective, responsible for ensuring the satisfaction of the conceptual terms of the agreement, to ensure “protection of rights”, that must be impartial, neutral arbitrator, outdoor, likened a robot running a program. Since reality has portrayed a different state, Buchanan suggests the existence of a productive government, which is formed by a group of people elected to govern.

According to the ideas of this school, the state is not regarded as absolute guarantee of interest, social justice, but as a human organization in which decisions are taken by people, politicians and officials, which may fail and may concern, firstly of their personal interests: politicians to be elected or reelected, while officials have the ambition to increase power and remuneration. It is an argument for this school representatives campaigning for a minimum state.

The Austrian School advocates acknowledge the presence of government in the economy, but a limited intervention. For example, liberal Ludwig von Mises (1998) criticized the famous dictum: “the government is especially good as it governs less”, convinced that any criticism can be made regarding the effectiveness or not of some actions, but you can not say that you hate government presence.

The economist did not hesitate to be clear about the fact that people can not do without government, stating that “[...] this political power is the primary task of safeguarding the proper functioning of the economy against fraud and violence arising from inside or outside the country “(Mises, 1998, p. 51).

An opponent of state intervention in the economy is the libertarian school, one that relies on theories of the Austrian school and especially on Hayek ones, having as initiator the person of Murray Rothbard. Its representatives are convinced supporters of *laissez-faire*'s and suspicious of a proper state intervention in the economy. According to this school of thought, human rights are not state product, therefore can not be seized or denied for the good of the community. They totally condemn the tax, which is considered a theft.

Libertarianism is based on the idea that the public sector is inefficient and wasteful than the private sector and the welfare state does not facilitate recovery application, whereas much of the revenues of firms and individuals are channeled to the public. The solution with which they come is self-regulation market. This is expressed by a reduction of taxation and public expenditure and that policy aims to encouragement the offer rather than encouraging the demand (Hoanță, 2000, p. 58).

Nozick (1997) rejects elements of the modern welfare state, fights for the existence of a minimal state, whose functions relate to theft protection and protection of property rights. Moreover, Nozick believes that taxation is inherent in distributive societies, and if it is necessary to sustain a minimum state it means forced labor.

Hayek distinguishes between residual and welfare state, the first one is designed to protect the market and individual liberty, while the second is a constraint which will lead to restriction of freedom and individualism, may promote totalitarianism. He therefore advocates for state intervention in order to protect market.

5. CONCLUSIONS AND PERSONAL OPINIONS

The debate on the need for state intervention in the economy has been subject of analysis and reflection over time, depending on the philosophical opinion of different schools of economic thought.

Physiocrats, followers of the natural order governing society, fight for an authoritarian state, but reduced to minimum, a state that ensures the legal framework under which the freedom, life and property should be considered and treated as intangible values. However, the government should not restrict any right of life or the right to liberty, property or other right or natural liberty.

English Classical School was intended to correct errors of physiocrats and mercantilists and to give some relevant explanations of economic processes and phenomena. Classical economists were strongly for the existence and presence of state as a condition of proper functioning, because society can not be conceived anarchic and utopian, that liberalism and individual initiative can not be left to chance, being necessary limits of state action: Smith and Ricardo state for a tolerated state intervention, while Mill, Wagner for a desired action.

According to classical utilitarians, the state is absolutely necessary in the light of faith that state regulation enhances happiness and prosperity of the community and doesn't takes action if the global utility is gained more efficiently on a private way. Therefore, need for a minimal state in the economy has been justified by classical liberals, being aware of certain adverse effects expected.

The social and economic philosophy of *laissez-faire*, that all citizens share a single political ideal, namely the welfare of the whole nation was replaced during the economic crisis of overproduction in the years 1929-1933 by the interventionist doctrine (1933: U.S. New Deal Policy, 1936: Keynes's interventionist theory in Europe).

State interventionism suppose that governments should interfere in the economy through public spending, taxes and interest rates to mitigate the negative effects of economic and financial crisis, thus increasing the role of economic policy measures, including financial policy. Therefore, Keynes attaches great importance to state that in his opinion, is beyond the social classes and whose intervention in economic life are in the interest of society. Thus, the economic model he developed requires considerable financial efforts by public authorities and aims to achieve economic equilibrium, not only solve the problem arising from the distribution process, as in the classical vision.

A quarter century after the Second World War, Western developed economies have experienced sustained economic growth, using full employment and inflation in the normal range.'70s have raised the debate on welfare state, placing it in a crisis of legitimacy, defined by the liberal movement branches: School public choices, libertarian School, New economy, etc., which reduces the powers of the state, showing its perverse effects of intervention, wanting to reduce it to a minimum.

Personally, I think that a minimal state, a state such as the one proposed by Nozick, without taxes, it is not likely to be. Even those who have criticized the state have recognized the need for government intervention (Hayek, Mises).

The typical expression of specific arguments for a liberal state of the late twentieth century is the one of Milton Friedman, who supports the idea of a state with limited scope, covering defense policy and law, implementation of private contracts, creating competitive markets as well as more dispersed governmental power.

Currently, what characterizes the global economic landscape, dominated by a strong economic and financial crisis, is the inability of market to be self-regulating and also a resurgence of Keynesian paradigm, according to which government intervention is seen as a way to stimulate consumption, aggregate demand and thus the country's economic recovery.

It was noted that governments with a share in the global economy have practiced such policies, attempting through fiscal budgetary stimuli to avoid an economic decline and seeking to support the private sector. According to Keynes, in times of economic downturn it is advisable to hire more public spending, given the multiplier effect that the demand for final consumption and investment implies.

Nobel laureate for Economics, Paul Krugman, in his book „Întoarcerea economiei declinului și criza din 2008” (2009), said in a suggestive manner that we live „not only a new era of economic decline, but that John Maynard Keynes - the economist who logical loose harnesses the Great Depression - is now more relevant than ever” and that „the only major obstacle to global prosperity are outdated doctrines that human minds can not divest oneself”.

I believe that the interventionist role of the state is important in the context we are talking about as long as the economic and social measures it implements can lead to recovery of the country, if small businesses are supported by state aid schemes and tax incentives, given their potential of creating new jobs, if through public expenditure are helped economic categories hardly-hitten by the crisis etc.

6. ACKNOWLEDGEMENTS

I am grateful to “Alexandru Ioan Cuza” University of Iasi, for financial support of this article, due to the project POSDRU/88/1.5/S/47646, cofinanced from the European Social Fund, within the Sectoral Operational Program Human Resources Development 2007-2013, the project implementation period being 36 months, from March 1, 2010, until February 28, 2013.

REFERENCES:

- [1]. **Buchanan, J.** (1997) *Limitele libertății. Între anarhie și Leviathan*, Editura Institutului European, Iași
- [2]. **Friedman, M.** (1995) *Capitalism și libertate*, Editura Enciclopedică, București
- [3]. **Galbraith, J.K.** (1997) *Societatea perfectă*, Editura Eurosong&Book, București
- [4]. **Guerrien, B.** (1993) *Economia neoclasică*, Editura Humanitas, București
- [5]. **Hoanță, N.** (2000) *Economie și finanțe publice*, Editura Polirom, București
- [6]. **Keynes, J.M.** (1970) *Teoria generală a folosirii mâinii, a dobânzii și a banilor*, Editura Științifică, București
- [7]. **Krugman, P.** (2009) *Întoarcerea economiei declinului și criza din 2008*, Editura Publica, București

-
- [8]. **Mises, L.V.** (1998) *Capitalismul și dușmanii săi*, Editura Nemira, București
- [9]. **Nozick, R.** (1997) *Anarhie, stat și utopie*, Editura Humanitas, București
- [10]. **Onofrei, M.** (2000) *Impactul politicilor financiare asupra societății*, Editura Economică, București
- [11]. **Pohoăță, I.** (2001) *Capitalismul: itinerare economice*, Editura Polirom, Iași
- [12]. **Pohoăță, I.** (1996) *Doctrine economice*, vol.2, Editura Fundației Academiei „Gh. Zane”, Iași
- [13]. **Popescu, G.** (2009) *Evoluția gândirii economice*, Editura C.H. Beck, București
- [14]. **Samuleson, P. et al.** (2000) *Economie politică*, Editura Teora, București
- [15]. **Smith, A.** (1965) *Avuția națiunilor: Cercetare asupra naturii și cauzelor ei*, vol. II, Editura Academiei Republicii Populare Române, București

LABOUR MARKET AND SOCIAL POLICY IN THE JIU VALLEY

MIHAELA CAMELIA SCHMIDT *

ABSTRACT: *The paper contains an analysis of the labour market and social policies in the Jiu Valley from the perspective of its inhabitants.*

KEY WORDS: *labour market; indicators and tools for labour market analysis; work force; unemployment; unemployment rate*

JEL CLASSIFICATION: *A14*

1. THE LABOR MARKET – INDICATORS AND ANALYSIS TOOLS

The labour market can be defined as "the economic and social space where the work force demand (the capital owners as buyers) and supply, represented by the work force owners, meet, confront each other and are freely negotiated" (Pârvu, 2001, p.286). In other words, the labour market is "a system defined by the economic relations regarding the work force employment and use, as well as the social protection and assistance provided for the owners of this special merchandise" (Niculescu, 1995, p.23). Consequently, the labour market, alongside with the goods and capital market, display work force as their object.

On the work force market, which is a component of the market system in a modern market economy, the work force demand and supply (the basic principles of the work market) confront each other (Pârvu, 2001, p.292; Dobrotă, 1997, p.147):

1. The work force demand is expressed by the amount of work force, structured in professions and training and qualification levels, necessary to an economic unit, sub – branch or branch in order to produce a certain quantity of goods and services demanded by the market at a certain moment or within a certain period. It represents the total number of occupied and unoccupied jobs in an economy. The work force demand bearer is the employer. From this perspective, the work force demand depends on the demand of goods and services to the achievement of which participate

* Lecturer, Ph.D., University of Petroșani, Romania, schmidtcamelia@yahoo.com

employees in different trades and professions, in a geographic area and within a time lapse;

2. The work force supply consists of that section of the work resources that call for a paid job. It is expressed by the available working population from which we subtract the non – working population represented by students, soldiers and individuals unwilling to engage in remunerated activities as they have certain living resources. Obviously, the first and foremost factor that has an impact on the work force supply is population dimension” which is delineated by a series of criteria, social – demographic conditions, and options of the individuals of legal working age and able to work”.

According to the capacity to participate to the economic and social activities, population falls into the following categories (Cojocaru apud Neamțu, 2003, p.605):

- *the working age population* – individuals between 14 (16) years old and retirement age, resident in a certain area and considered able to be involved in the process of social work;
- *the population available for work, or the population able for work*, whose health condition allows them to perform a type of economic and social activity; this category of population represents the basis of a country’s work force resources and operates directly on the work force market under the form of supply;
- *the inactive population* – the individuals who do not participate to the process of social work and are supported (children, persons incapable of working, pensioners, housewives, school children, students);
- *the active population* – the individuals who participate to the process of social work, carrying out a professional activity and the working age individuals willing to work and available to be employed;
- *the occupied active population* – the population who actually participates to the economic and social activity.

The delineation of these population categories differs, to a certain extent, both from one author to the other, and according to the methodology used in the information gathering and processing. The American economists McConnel and Brue (in Preda, 2002, p.59), are of the opinion that the work force supply can be understood, at the same time, as: the total number of able persons in search for a paid; the number of hours they are willing to work or they actually work; the effort they put in while working; the qualification level that determines the quality of their work.

The indicators of the work market are characterized from a variety of perspectives: demographic, economic, educational–formative, social, etc. These indicators, which measure the intensity of phenomena and processes on the work market, are grouped as it follows:

1. *Level indicators* – represented by: work resources indicators (active population, occupied population, work resource, working age population, and the individuals without the legal limits of working age); work force occupation and unemployment indicators (occupation and unemployment rate); salary indicators (work force cost); work duration indicators; work conditions and conflicts indicators.
2. *Structure indicators* – are represented by the above mentioned indicators, structured according to such criteria as: sex, age group, territorial distribution, social – occupational categories, activity branches, professions, company size, professional

experience of the employees or of the unemployed (and duration of unemployment), payment types, duration of employment, etc.

3. *Derived indicators* – are the indicators combining different criteria and population characteristics (for instance the structuring of occupied population according to areas, the salary level, etc.).

From the point of view of the *work market analytical indicators*, the most significant are the following:

- *The active population*, consisting of two large categories: the civilian active population and the army forces;
- *The activity rate* can be calculated either by referring the active population to the total population to obtain the whole population activity rate, or to the working age population or, in other cases, to the available work resources, to obtain the working age population activity rate, respectively the available work resources;
- *The occupation rate* can be calculated by referring the occupied population either to the working age population, or to the available work resources;
- *The unemployment rate* is calculated by referring the number of unemployed individuals to the active population or to the occupied population.

Each of these indicators can be calculated on a national, regional or local level, for the whole work force or as partial indicators, for certain segments.

2. THE ANALYSIS OF THE WORK MARKET IN THE JIU VALLEY

The work force occupation is an important indicator of the efficient use of human resources, which have a vital contribution to the ensuring of efficient economic activity in an area. The following concepts are used in the specific language (M.M.P.S., 1994): *work resources* represent the total number of individuals of, under, and over the working age, able to work, in a certain area; *active population* represents the total number of individuals of, under, and over the working age, able to work or in search of a job; *occupied population* represents the total number of individuals of, under, and over the working age, able to work, having a paid job (including non – remunerated home workers); *the unemployed* represent the total number of individuals able to work, of working age, in search of a job and in the records of work offices.

Of these indicators, occupied population is considered a barometric, prognosis indicator of the economic and social environment of an area. In general, on a national level, the occupation rate can rise in time, whereas in certain areas, among which the Jiu Valley, it falls. This is possible because the Jiu Valley area has a sharp monofactorial development character, and the decrease of the predominant mining activity in the area inevitably leads to the regional decrease of the occupation rate. The predominant professions in the area (miner, coal processor, mining mechanic, etc.) are no longer demanded and are difficult to convert. The families in the region are generally large and often supported financially by only one member who works in the field of mining or a connected field.

The analysis of the structure of the active and occupied population in the Jiu Valley (Schmidt, 2008, p.105), showed that the number and rate of the active population in the total population varies according to gender and the social – economic

conditions. The rate of the active population in the Jiu Valley is negatively influenced by the restructuring of the mining sector over the past years and the low degree of involvement in the production process on the part of women. The participation of women in the activity is much more reduced than that of men. Of the total number of active population, only 78.31% works. The rate of occupied population (of the total number of population) has also decreased much over the past years. That is why a high unemployment rate is also to be noticed.

In order to find out the opinions of the Jiu Valley inhabitants about the work market offers and the occupation possibilities we have drawn the conclusions of an ample field research conducted in all the towns in the area, in which we have used the direct inquiry based on the interview applied to a number of 288 subjects

Due to the reduction of activity in the field of mining, there is a change of mentality to be remarked with the local population, who is more willing to accept jobs in the private sector, and breaks away from the paternalism induced by the state, which was, until recently, omnipotent and omnipresent in the field of economy, health, education, culture, etc. Figure 1 is relevant in this sense:

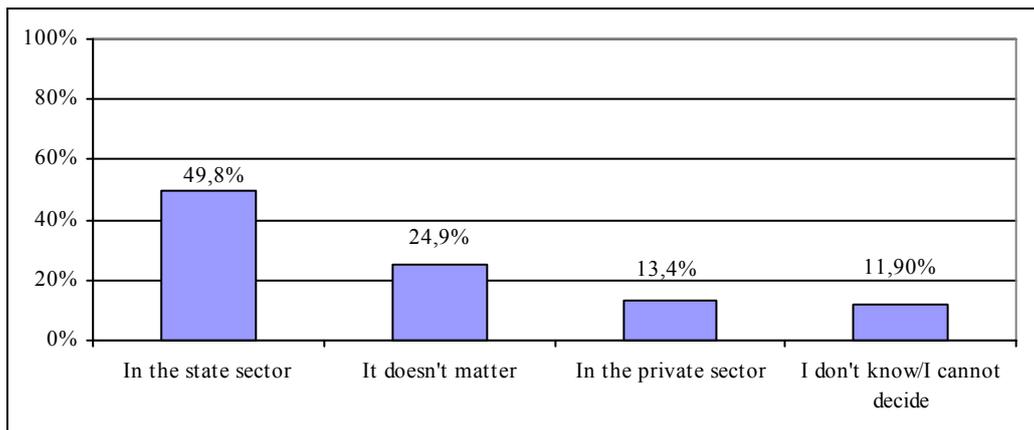


Figure 1. Job preferences

The Jiu Valley population, like other local populations, still prefer a job in the state sector to one in the private sector, even if the former is more poorly paid, because it is considered safer. In the same sense, we have tried to find out what should be, in the opinion of the Jiu Valley inhabitants, the main factor to be taken into account in the establishing of a salary.

Less than a quarter of the questioned subjects consider job related competence to be the major factor in claiming a certain salary. However, the factors mentioned above operate as a whole, as it is impossible for a high competence level (the third factor) not to be doubled by a high education level (the fourth factor in the diagram).

Another aspect, closely related with the previous, is represented by the job expectations of each employee, which is a major element in the policy regarding the negotiation with the unions and conflict management when necessary.

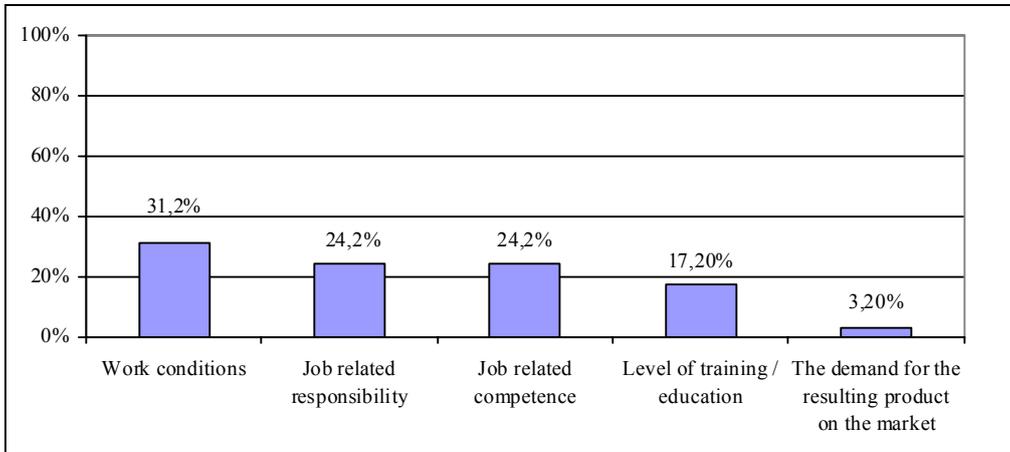
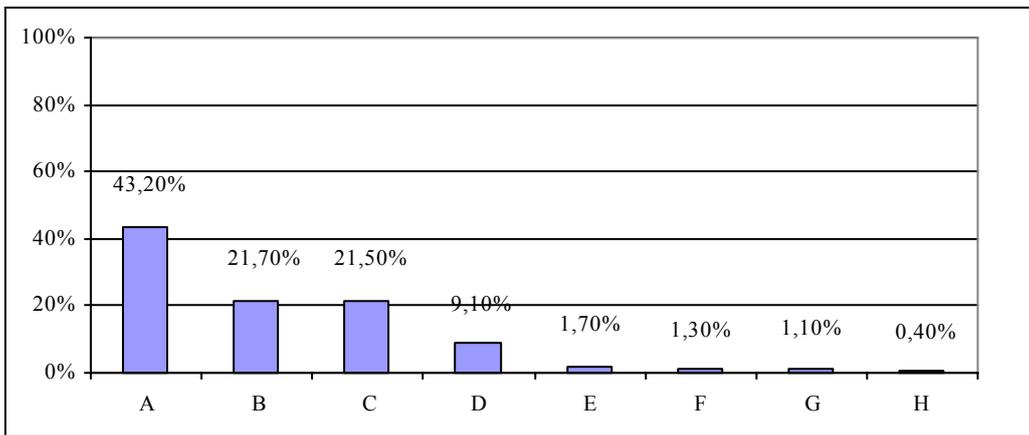


Figure 2. Factors to be taken into account for salary establishment



Legend: A – good salary; E – possibility to work with favorite people
 B – long term job safety; F – possibility to be useful for the society
 C – acknowledgement of individual merits; G – other expectations
 D – conditions for professional promotion; H – vacations as long as possible

Figure 3. Job expectations

Knowing expectations, it is much easier to connect reality to the requests of social groups in order to avoid frictions and frustrations which turn into social and material costs. The expectations of the Jiu Valley inhabitants are in full accordance with the findings of specialists in the field: expectations based on positive extrinsic motivation (by appraisal: *the acknowledgement of individual merits* – 21.50%, or materially expressed: *a good salary* – 43.20%; *conditions for professional promotion* – 9.1%; *vacations as long as possible* – 0.4%), negative extrinsic motivation (expressed through fears for tomorrow: *long term job safety* – 21.70%) and intrinsic motivation (*possibility to be useful for the society* - 1.3%; *possibility to work with people I like* – 1.7%).

Unemployment is considered the antipode of occupation, being actually characterized by total non – occupation or total lack of a job. The unemployed is “anyone over 15 who simultaneously meets the following conditions: is able to work, does not work, is available for remunerated work, is in search of a job” (Voinea, in Zamfir & Vlăsceanu, 1993, p. 632). Unemployment is a negative phenomenon which expresses distortions both on the work market and the goods and services market when the demand exceeds the supply. The main sources of unemployment are: the loss of jobs on the part of the employed and inadequate job offers for those who graduate from certain education forms and reach the legal working age.

The unemployment rate decreased at the beginning of 2010, so that in July 2010 it was 10.15 %, in Hunedoara county, and higher in the Jiu Valley. The most unemployed persons in the Jiu Valley are in Petroșani – 1,599, followed by Vulcan – 1,357, Petrila – 1,354 and Lupeni – 1,139. This happens because, unlike the other towns of Hunedoara county, the Jiu Valley has the fewest available jobs: for instance, Aninoasa – 4 jobs on the market, Lupeni – 8 jobs on the market and Petrila – 10 jobs on the market (according to AJOFM Hunedoara). This situation can be accounted for by the fact that the Jiu Valley is the area with the lowest investments in finding work force occupation alternatives in Hunedoara County.

The category of the unemployed in the Jiu Valley is characterized by a very poor material situation, the living standard slightly oscillating around the subsistence level for the beneficiaries of the minimum guaranteed income, poor health condition, (frequent diseases), the impossibility to buy the necessary medicine, poor households, massive disconnections from the heating system, etc.

We have already outlined the coordinates according to which the inhabitants of the Jiu Valley accept or refuse a job, as well as their job expectations. Now we are going to analyze their opinions about the unemployed populating the area.

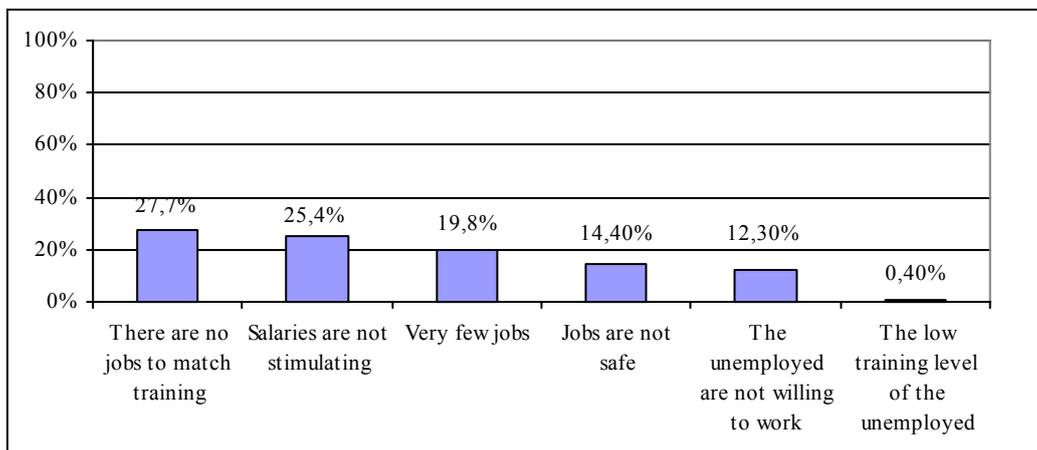


Figure 4. Motivation of high unemployment

From the whole set of reasons pointed out as causes of unemployment we can select at least two objective ones: jobs do not match training, and job scarcity. Reasons

such as low salaries or unsafe jobs are not acceptable. On the contrary, persons in financial difficulties would accept any job, even below their training level, to overcome poverty. However, it is obvious that people consider such arguments to be quite justified. Let us analyze what people think about social protection exclusively based on financial support, or about social support:

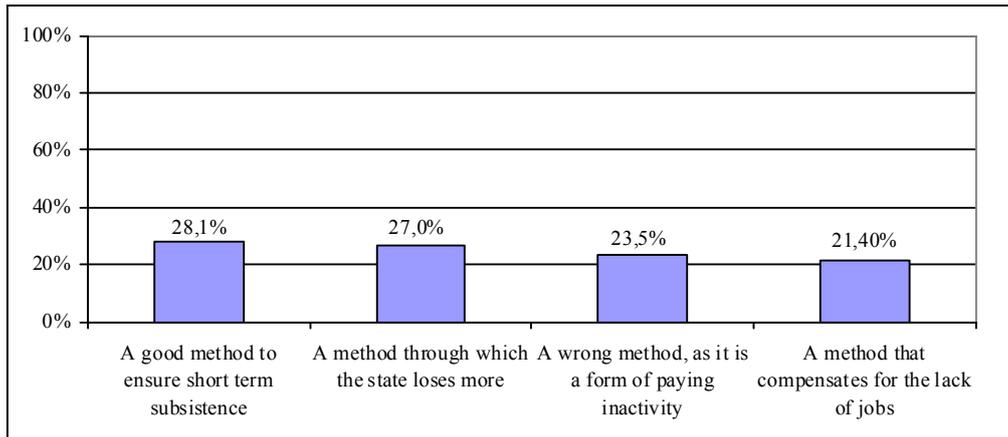


Figure 5. The opinion of the Jiu Valley inhabitants about exclusively financial social support

Not even one category of subjects resulting from the processing of the answers appreciates the method of financial support. This method, in its most positive version, is considered to have short term efficiency, helping the individual and the family to survive until a job is found. The idea emphasized here is that of creating new safe and decently paid jobs. Otherwise, there is the risk to perpetuate among the population the belief that they can live without working, the little they get being, anyway, better than nothing. This idea is also reinforced by the following answers:

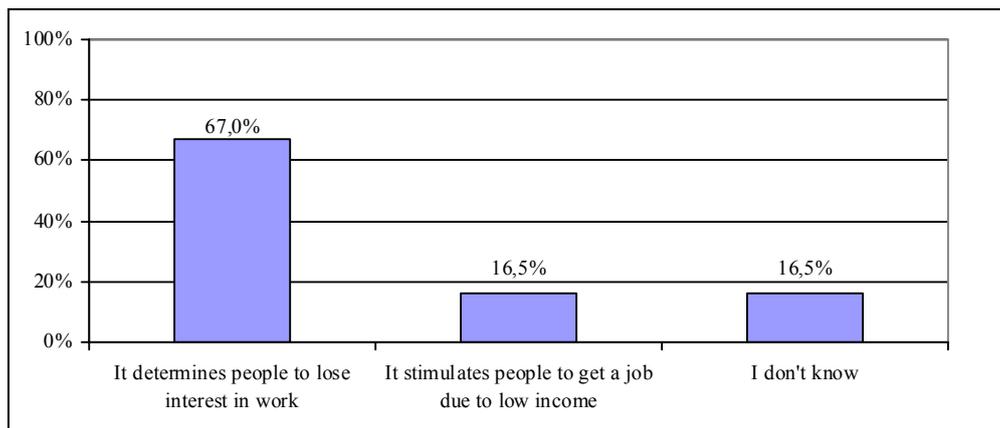


Figure 6. Effects of social financial support

We can conclude, therefore, that most of the Jiu Valley inhabitants consider social support an element that hinders the development of a culture of work, allowing certain counterproductive concepts to settle in the social body and stop the production of material and spiritual values.

REFERENCES:

- [1]. **Cojocaru, M.** (2003) *Asistența și protecția socială la nivelul pieței muncii în România*, în Neamțu, G. (coord.), *Tratat de Asistență Socială*, Editura Polirom, Iași
- [2]. **Chelcea, S.** (2007) *Metodologia cercetării sociologice. Metode cantitative și calitative*, Editura Economică, București
- [3]. **Dobrotă, N.** (1997) *Economie Politică – O tratare unitară a problemelor vitale ale oamenilor*, Editura Economică, București
- [4]. **Niculescu, N.G.** (1995) *Piața forței de muncă*, Editura Tehnică, Chișinău
- [5]. **Pârvu, G. (coord.)** (2001) *Economie. Manual universitar*, Editura Universitaria, Craiova
- [6]. **Preda, D.** (2002) *Politica socială românească între sărăcie și globalizare*, Editura Polirom, Iași
- [7]. **Schmidt, M.C.** (2008) *Implicații sociale și psihosociale ale tranziției asupra familiilor din Valea Jiului – teză de doctorat*, Universitatea „Babeș-Bolyai” Cluj-Napoca
- [8]. **Zamfir, C., Vlăsceanu, L. (coord.)** (1993) *Dicționar de sociologie urmat de indicatori demografici, economici, sociali și sociologici*, Editura Babel, București
- [9]. **Zamfir, C. (coord.)** (1995) *Dimensiuni ale sărăciei*, Editura Expert, București
- [10]. **Ministerul Muncii și Protecției Sociale, Direcția Județeană Hunedoara** (1994) *Statistica și prognoza pieței muncii* (Ghid practic pentru personalul M.M.P.S.)

IMPROVING PUBLIC SERVICES THROUGH A ORGANIZATIONAL PERFORMANCE MANAGEMENT

**IOANA STĂNCESCU, VASILE POPEANGA, VERGEL VĂTUIU,
VIRGINIA ELENA VĂTUIU ***

ABSTRACT: *Organizational management, systemic approach, is known more as a system Management, that set of factors such as organizational, methodological information, decisions and relationships between them, as outlined, that will achieve objectives. Fundamental objective of management in public organizations involved in the holders of public office positions and leadership and execution in this area an additional responsibility to manage all types of resources available to the public sector, namely human resources, information, material and financial. Summary of process management is focusing on human coordination of joint work. An important role in this process is modernizing organizational management and quality delivery of public services or the institution's activities, public services more efficient by implementing innovative tools, leading to a government driven process to a results-oriented public service.*

KEY WORDS: *modernization of organizational management; public service quality; results-oriented public service*

JEL CLASSIFICATION: *H83, M12*

1. GENERAL CONSIDERATIONS ON ORGANIZATIONAL MANAGEMENT MODERNIZATION

Public sector modernization and improvement of quality of public services is essential for public sector reform. Whatever the model chosen management, quality public service remains a key issue for modernization and reform program of

* *Ph.D. Student, Free International University of Moldova, Chisinau, Republic of Moldova,*

nonica_2007@yahoo.com

Prof., Ph.D., „Constantin Brâncuși” University, Târgu Jiu, Romania,

vasile_popeanga@yahoo.com

Expert Ph.D., Romanian Bureau of Legal Metrology, Bucharest, Romania, vatuiu@yahoo.com

Masters Student, “Roehampton” University of London, UK, vvirginia12@gmail.com

government. Quality management offers solutions to problems of inefficiency and low quality of services delivered, but also to reduce costs in financial crisis.

An important role in this process is modernizing organizational management and quality delivery of public services or the institution's activities, public services more efficient by implementing innovative tools, leading to a government driven process to a results-oriented public service such as for example: using quality management in public service delivery; improving cooperation between institutions and initiatives to create collaborative networks; background choices / decisions based on evidence / evidence; promote modernization of organizational management in the administration through innovative measures, through specialization of civil servants, their motivation and mobilization towards innovation, etc.; implementing and monitoring the implementation and enforcement procedures to govern the institution's current business; recovery of outstanding quality management results in terms of organizational culture; reduce the government financial; promotion of electronic solutions, etc.; improve security of public documents; simplification of administrative procedures and measures to reduce bureaucracy; improving services (equipment, materials, personnel, finance); reduce delays in obtaining deliverables and response time to public service users; minimize losses and maximize the value (eg more efficient use of staff time); focus on service delivery outcomes.

2. INCREASING INTEGRITY, TRANSPARENCY AND ACCOUNTABILITY IN THE CIVIL SERVICE

An efficient public administration involving public trust. Citizens expect public servants to serve the public interest in fairly and with decency to manage public resources every day. Romania, like all other European countries are in the stage of implementation and strengthening of ethical standards and other legal instruments and administrative measures to ensure the integrity of government. Successful implementation requires the introduction of major new changes in the institutions and their organizational cultures. All stakeholders-government, private sector and civil society is facing this challenge at all levels. In this context, promote and encourage best practices on this topic simply to meet this challenge and strengthen capacity for cooperation between all parties involved.

Actions that may lead to proper application of the concepts of integrity, ethics, transparency and accountability are: practices and measures to promote ethical conduct in public office; method of recovery of advisers and their business ethics; measures to prevent and combat corruption; positive and innovative solutions identified and investigated to prevent and combat corruption; analysis and assessment of situations of risk and vulnerability to corruption and real achievements as a result of these actions; instrumental integrity standards and indicators; anti-corruption strategies / action plans implemented; measures to avoid infringement regime of incompatibilities and conflicts of interest; establish measures of motivation and retention of qualified personnel in the system; take steps necessary to achieve a more efficient management of career civil servants. (connections with training need mobility etc.); identify the necessary skills and effective use of staff.

3. PRESENTATION METHOD OF ANALYSIS ON "HUMAN RESOURCES" IN GORJ COUNTY COUNCIL

Analysis was performed on a sample of 30 public officials on March 23, 2010, in the Gorj County Council there were 129 civil servants. Of these, the share of women is slightly higher ratio of men and women tend to equilibrate.

3.1. Proposed Objectives

Proposed Objectives are: determining whether officials know legislation; identify issues in career management functionality CJG; identify the advantages and disadvantages experienced by civil servants; determining whether the legislation applies to career civil servants; identify the methodology by which subjects become civil servants and promotion opportunities. Guide approach includes: discussion about the status of civil servant; story of the last pass when the subject was assessed; promote discussion of the CJG; discussion of legislation related to civil servants; talk about the subjective perception of their careers. The topics will be raised only if the subject does not address its exposure in the wild, or deepening them. Interviews will be conducted at the workplace of each subject (Gorj County Council), and each interview will take 3-5 minutes.

3.2. Design research

This research aims to study 'attitudes, opinions and perceptions of public officials on human resources management in the Gorj County Council. The marketing research is an analysis that is applied to the evaluation of career civil servants. The questionnaire was based on research objectives and contains 12 questions. Questions are closed because they provide on the topic in a position to indicate one or more possible answers proposed are easier to give answers, and processing and interpretation of data obtained is simplified. The questionnaire contains both single-choice questions and multiple choice questions.

Formulating questions were chosen simple words, easily understood, avoiding questions that suggest or imply some answers? Question wording was a direct manner to facilitate the responses of subjects and to avoid certain misinterpretations. The questionnaire has a certain dynamic, a certain order of arrangement of questions. The questionnaire begins with simple questions, general questions; questions that are then directly reach the issue of research and interpolated the most difficult questions that require more time thinking of questions easier.

3.3. Planning work on sample of 30 civil servants

The main method of communication with subjects, we chose facing investigations that are more complex, and could thus obtain a better control over the conditions for interviews. During the interview, questions were read slowly, clearly, respecting the rules on how to release the questions. We can assume from experience

that the subjects will be happy to make them willing cooperation in carrying out this research. Also some questions will be clarified with a greater degree of complexity, offering explanations and guidance subjects without any influence but opinions.

Market research on a sample of 30 civil servants		
23.03.10-25.03.10	2 days	Planning activities
28.03.10-02.04.10	5 days	Questioning sample
05.04.10-09.04.10	5 days	Centralizing data collected
12.04.10-14.04.10	3 days	Data analysis and conclusions drawn

3.4. Questionnaire for performance evaluation of civil servants

1. You are a public official or executive management?

- servant leadership
- official execution

2. In that period have been appointed official?

- 1999-2004
- 2005-2006
- 2007-2008
- 2009

3. Under what conditions have been appointed official?

- The competition
- The report
- Do not know / no answer

4. What are the benefits they felt to be official?

- Salary Benefits
- Job security
- Priority in training
- Do not know / no answer

5. What are the disadvantages which they felt to be official?

- The inability to own a business in
- Failure to involve the political line
- large Responsibilities
- Do not know / no answer

6. How often do you evaluate?

- Monthly
- Annually
- Not rated
- Do not know / no answer

7. Who will make periodic assessment?

- Head directly
- You
- An office colleague
- Do not know / no answer

8. What is the periodic assessment?

- An interview with a higher
- Completion of a top of a report on individual performance
- And the interview and questionnaire
- Do not know / no answer

9. What are the criteria that has to be promoted?

- Promotion is a contest
- Promotion is by appointment
- Promotion is a contest report
- Do not know / no answer

10. How far that can promote in the near future?

- I will promote the first occasion when the upper seats vacant
- I will not be able to promote only the relationships
- Not interested in promoting
- Do not know / no answer

11. How you perceive your own career?

- Satisfactory
- Unsatisfactory
- I do not think a career
- Do not know / no answer

12. What is your age?

- Between 20-30 years
- Between 30-40 years
- Between 40-50 years
- Over 50 years

3.5. Responses to questionnaire

We present below some of that resulted after the centralization of the responses:

1. You are a public official or executive management?

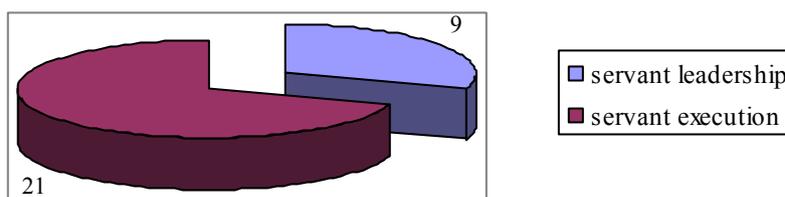


Figure 1. Types of public servants

Table 1.

Official type	Servant leadership	Servant implementation
Number of officials	9	21
Percentage	30%	70%

2. In that period have been appointed official?

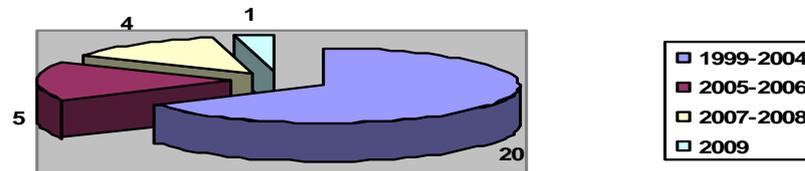


Figure 2. Period of appointment of public servants

Table 2.

Period	1999-2004	2005-2006	2007-2008	2009
Number of officials	20	5	4	1
Percentage	66.66%	16.66%	13.33%	3.33%

3. Under what conditions have been appointed official?

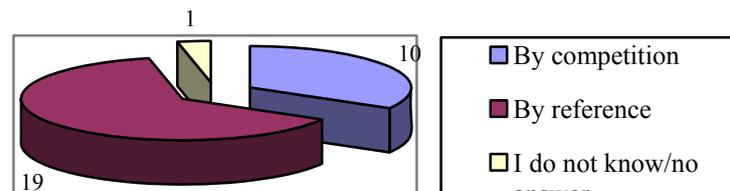


Figure 3. Terms of appointment of public servants

Table 3.

Method	By competition	By reference	I do not know/no answer
Number of officials	10	19	1
Percentage	33.33%	63.33	3.33%

4. What are the advantages to be felt in official?

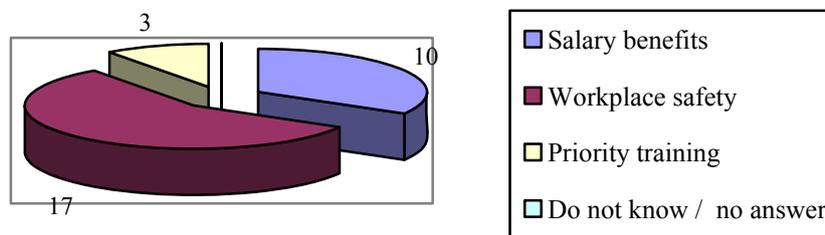


Figure 4. Benefits experienced by public servant

Table 4.

Type of benefit	Salary benefits	Workplace safety	Priority training	Do not know / no answer
Number of officials	10	17	3	0
Percentage	33.33%	56.66%	10%	-

5. What are the disadvantages which felt to be official?

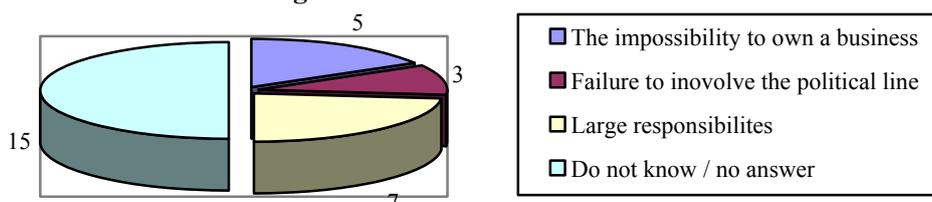


Figure 5. Disadvantages experienced by public servant

Table 5.

Types of disadvantage	The impossibility to own a business	Failure to involve the political line	Large responsibilities	Do not know / no answer
Number of officials	5	3	7	15
Procentual	16.66%	10%	23.33%	50%

6. What is the periodic assessment?

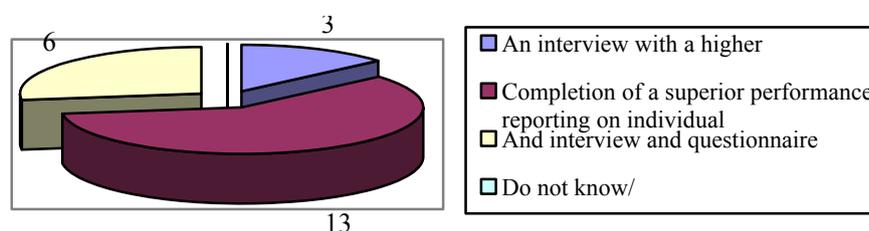


Figure 6. Evaluation criteria

Table 6.

Type of assessment	An interview with a higher	Completion of a superior performance reporting on individual	And interview and questionnaire	Do not know/ no answer
Number of officials	3	13	6	8
Percentage	10%	43.33%	20%	26.66%

7. What are the criteria that has to be promoted?

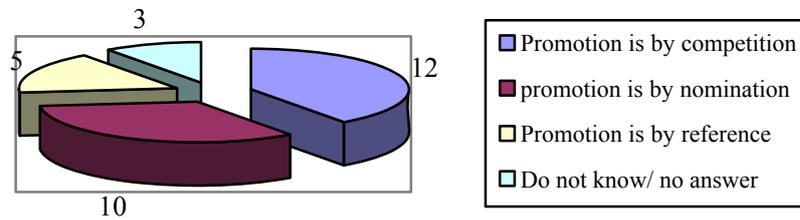


Figure 7. Criteria for promotion

Table 7.

Promotion criteria	Promotion is by competition	promotion is by nomination	Promotion is by reference	Do not know/ no answer
Number of officials	12	10	5	3
Percentage	40%	33.33%	16.66%	10%

8. How far you can promote in the near future?

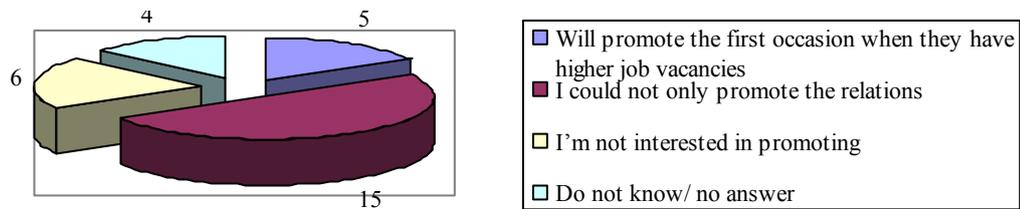


Figure 8. Promotion in the near future considerations

Table 8.

Promotion possibilities	Will promote the first occasion when they have higher job vacancies	I could not only promote the relations	I'm not interested in promoting	Do not know/ no answer
Number of officials	5	15	6	4
Percentage	16.66%	50%	20%	13.33%

9. How you perceive your own career?

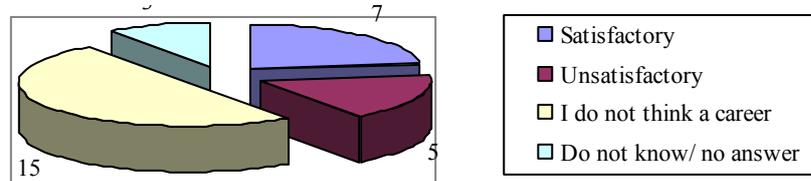


Figure 9. Perception of own career

Table 9.

Perception of career	Satisfactory	Unsatisfactory	I do not think a career	Do not know/ no answer
Number of officials	7	5	15	3
Percentage	23.33%	16.66%	50%	10%

10. What is your age?

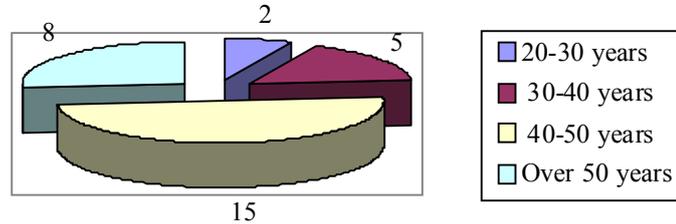


Figure 10. Age of respondents

Table 10.

Age	20-30 years	30-40 years	40- 50 years	Over 50 years
Number of officials	2	5	15	8
Percentage	6.66%	16.66%	50%	26.66%

4. CONCLUSIONS

Human resources work Gorj County Council, was conducted based on core principles and have proven practical value, such as: concern sustained concentration and targeting capabilities and individual efforts to achieve effective institution's objectives; link in an integrated manner, policy and human resources systems with the mission and strategy of the institution; assessing the human factor as a key resource.

Recognizing that human resources management mission is to participate in the institution's objectives by creating, maintaining and developing a flexible body of highly skilled public servants, capable of providing high quality services, Human Resources Department has pursued and achieved the following Specific objectives: ensuring the functioning of human resource management activities; providing career development for civil servants; objective assessment of professional performance of public officials; concern presented in professional development.

Objectives for 2009 have been completed; work in human resources being limited, but requiring new activities daily, according to priorities. Analyzing recruitment questionnaire based on the application submitted, I noticed the lack of a specific mechanism for requiring public servants:

- Creating specialized recruitment mechanisms possibly managed by Regional Training Centre in Local Public Administration or outsourced as a service;
- Recruitment should be in tasks manager / human resource manager, which maintains a constant connection with these resource centers so that the Regional / service that consistently provide information about public institutions contests offer qualified personnel in an existing time on a particular specialty;
- Identify to the Head of the poor and creating specialized facilities (wage) to attract and retain highly skilled professionals in the system in the majors;

- Establish a national testing system with the minimum criteria for those who want to become civil servants, with different requirements depending on the category of public official who is organizing the competition (eg for leading officials, should be surprised that such tests psychological profile, the managerial skills of the person, etc.).
- Creating and applying uniform criteria to organize competitions at local / regional
- Organizing contests unit for similar functions within regions (districts 2-3)
- Testing of persons to be appointed by NACS committees Agency competition, to avoid replication of mediocrity in the system (ie, an evaluator who himself knows a foreign language can automatically test the candidate in this field)
- Create a complex institutional analysis in each public authorities and institutions with organizational adaptation to staff needs, allocation of tasks to stations so clear.

At evaluation stage is necessary:

- Adapting the assessment criteria for each type of function / to specific operations;
- Legal prerequisites to enable assessment outsourcing to specialized companies, with the National Agency of Civil Servants (NACS)
- Expanding the pilot project evaluation plan, the NACS representatives train human resources departments in making this type of evaluation, following the procedure to be applied regularly;

At control stage is necessary:

- More effective monitoring of implementation of Law no. 7 / 2004 on the code of conduct for civil servants;
- Strengthening the disciplinary committee's active role in the control / sanctions in cases of deviation from the rules currently governing the performance of the civil service;
- Organizing committee of discipline at the county level to avoid the risk of interpersonal ties that could affect the procedure, in small communities.

Promotion / efficient work of public institutions:

- Reassessment of the civil service promotion system so that the basic criterion is competence, not seniority basis;
- Establish mechanisms to promote the natural, while higher education graduation lengthy post-graduate etc. (Currently can not make a post processing, but switching to a higher category posts only in limited vacancy);
- Establish performance indicators institution.

Motivation:

- Civil incompatibilities, doublet without for wage reasons, make such public office to be unattractive, especially for youth;
- The limited funds allocated, head of the institution should have more flexibility in setting priorities - including a separate system for those

specialties poor motivation (in administration, a specialty of computer scientists is poor)

- Creating a more flexible system of prize / award of wage increases at local government level, adapted to the capacity of institutions / local authorities to attract and manage funds, together with transparency mechanisms and criteria for the granting of such premiums.

Training and continuing education:

- A preliminary assessment of training needs of civil servants in order to harmonize supply of courses (National Institute of Administration, the Regional Centre, etc.) Training with existing demand at a time in the central and local government;
- Reduce training costs by establishing a system of training hours / officer, and training days;
- The popularization and widespread use of advanced methods of e-learning;
- Establish an objective and uniform system of selection of public officials to receive training courses based on results of preliminary assessments of training needs of the institution;
- Training services liberalization and encouraging the markets (where these services are provided by nonprofit organizations accredited to the account of government funding for training of civil servants through their agency training providers);
- Differentiated approach to the concept of training of civil servants: initial training - conditions for entry into the system (entry to competitions); continuous training - improvement during their careers mandatory.

In conclusion, the civil servant status in its present form creates all the premises as a public service, similar to European governments and change the type of removal of category leading positions in public offices are inappropriate at this time and marks a setback in the process of no politicization administration. The problem existing legislation is not therefore a matter, but an implementation, public institutions no valorization effective mechanisms / tools that are available for proper application of the law.

Regarding the case strictly Gorj County Council, the main step necessary at this point would be to strengthen and improve human resources team. The activity department is currently limited to the interpretation and application of existing legislation truncated. Overall public administration, changes of HR and career management, mainly can not do than legislate. First is the ambiguity of some of the laws and the fact that they leave room for subjective interpretations.

Career civil servants, training, continuous improvement and motivate them to engage effectively in highly complex administrative processes and impact the public, should be the priority objectives of any public institution, regardless of where they work. Statute of Civil Servants Act, updated and modified by some provisions were declared unconstitutional, includes provisions that, properly applied, could lead to improved work and performance. However, the law is not fully applied and not in a uniform manner.

Human resource management is very limited and come primarily in the power ministries. There is a horizontal view on existing problems and any strategic plan to address them. Reassessment is needed of the allocation of human resources at central government level and an appropriate allocation of their priority areas. This could help reduce problems caused by restructuring facing many sectors of government.

REFERENCES:

- [1]. **Andronicănu, A.** (2007) *Noutăți în managementul public*, Editura ASE, București, p.206
- [2]. **Chivu, I.** (2007) *Dimensiunea resurselor umane*, Editura Luceafărul, București
- [3]. **Gorun, A.** (2007) *Considerații privind conceptul de administrație publică*, Revista de Științe Juridice
- [4]. **Gorun, A. (coord.)** (2010) *Gorjul-repere strategice. Orizont 2030*, Academica Brâncuși
- [5]. **Johns, G.** (2007) *Comportament organizațional*, Editura Economică, București
- [6]. **Lefter, V.; Deaconu, A.; Marinaș, C.; Puia, R.** (2008) *Managementul resurselor umane. Teorie și practică*, Editura Economică, București
- [7]. **Manolescu, A.** (2001) *Managementul Resurselor Umane*, Editura Economică
- [8]. **Manolescu, A.; Lefter, V.; Deaconu, A. (coord.)** (2007) *Managementul Resurselor umane*, Editura Economică, București
- [9]. **Matei, L.** (2008) *Management public*, Ediția a II-a, Editura Economică, București
- [10]. **Plumb, I.** (2008) *Managementul serviciilor publice*, ASE București
- [11]. **Stăncescu, I.; Popeangă, V.** (2008) *The pressures on the human resources management within the public sector*, www.upet.ro/en/anale/economie/
- [12]. **Tomescu, I.R.** (2007) *Managementul instituțiilor publice*, Editura „Academica Brâncuși” Tg-Jiu
- [13]. **Vedinaș, V.** (2009) *Statutul funcționarilor publici*, Editura Universul Juridic, București
- [14]. **Vătuiu, T.** (2010) *Politica de personal La Consiliul Județean Gorj*, Editura Academica Brâncuși, Tg-Jiu

BAYESIAN APPROACH OF DECISION PROBLEMS

**DRAGOȘ STUPARU, TOMIȚĂ VASILE,
CORA-IONELA DĂNIAȘ ***

ABSTRACT: *Management is nowadays a basic vector of economic development, a concept frequently used in our country as well as all over the world. Indifferently of the hierarchical level at which the managerial process is manifested, decision represents its essential moment, the supreme act of managerial activity. Its can be met in all fields of activity, practically having an unlimited degree of coverage, and in all the functions of management. It is common knowledge that the activity of any type of manger, no matter the hierarchical level he occupies, represents a chain of interdependent decisions, their aim being the elimination or limitation of the influence of disturbing factors that may endanger the achievement of predetermined objectives, and the quality of managerial decisions condition the progress and viability of any enterprise. Therefore, one of the principal characteristics of a successful manager is his ability to adopt the most optimal decisions of high quality. The quality of managerial decisions are conditioned by the manager's general level of education and specialization, the manner in which they are preoccupied to assimilate the latest information and innovations in the domain of management's theory and practice and the applying of modern managerial methods and techniques in the activity of management. We are presenting below the analysis of decision problems in hazardous conditions in terms of Bayesian theory – a theory that uses the probabilistic calculus.*

KEYWORDS: *certitude; uncertainty; risk; decision; probability; Bayesian theory*

JEL CLASSIFICATION: *C11*

1. THE DECISION PROBLEM. THE CLASSIFICATION OF DECISIONS

By employing irreversibly material and human resources, with effects on the development of future activities, the *decision* could be defined like *a dynamic and deliberate thinking process that aims to correctly choose the optimal alternative from a*

* Lecturer, Ph.D., University of Craiova, Romania, d_stuparu@yahoo.com
Assoc.Prof., Ph.D., University of Craiova, Romania, vasiletomita@yahoo.com
Assist.Prof., Post-Graduate, University of Craiova, Romania

number of options. In other words, *decision is the social act through which groups of persons and material resources work together to realize a certain action* (Ceoceca, 2010). Therefore, taking a decision implies the existence of at least two variants for achieving the objective.

In order to reduce at minimum perturbations, the decision also has to be made at levels as close as possible to the objective and in the shorter period of time, and also has to include the following logical elements: *abstraction or the rational reason* (formalization, modeling and simulation), *information* (acknowledging the reality as premise for choosing the optimal alternative) and *the objective* to achieve.

In this context, decisional factors that lead each subsystem, as well as the decision rules form the *management system*. No matter the nature of the assembly (economic, social etc.), it can not be considered automat systems (that can autocorrect itself) and, hence, the improvement of the performances is obtained through the permanent intervention of the management factors in the development of activities. Since the complexity and variety of interactions with the surrounding environment can not permit the aprioristic determination of all the rules for decision taking and its accomplishment points out the modification of some variables' values that are taking into account, it results the putting in practice of a decision is an actual *routing and control* function.

Uncertainty and insufficient knowledge of the possible consequences of all actions taken represent the principal difficulty in the process of elaborating and adopting a decision. Even in the conditions of a thorough analysis of all available information, there is always a certain degree of uncertainty that must be taken into consideration during the decision's elaboration process.

The determination of some mathematical models for the studying the phenomena with which the decisional factors from any field of activity are confronting in general, and especially those from the economic domain, is absolutely necessary, on one hand, for putting in an explicit and rigorous form the reports of causality between the factors that influence the consequences of a decision, and, on the other hand, for having available a scientific fundament for the decision, in this way being eliminated the routine, improvisation and subjectivism.

The decision problems can be differentiated from the others by a number of characteristics, which must be taken into consideration when a mathematical model has to be elaborated. A decision problem is considered to be defined formally, in general, if the following elements are clearly mentioned (Pekar&Smadici, 1995, pp.20-21):

1. The Decision-maker (the decision factor) who can be a person, a group of persons, a firm, an organization, etc.

2. The decision-maker's possibilities of action, by which can be understood different modalities through which the decision-maker can influence the behavior of the system towards which its actions are targeted. Each possibility of action is called an *alternative*, and the totality of the possibilities of action is known as *the lot of alternatives*. The act of choosing one of the alternatives, by which the decision-maker will act in the given situation, is called *decision*.

3. Objectives. The decision-maker's responsibility for the decision that is going to be taken can be defined like the necessity of choosing an alternative that will

lead to obtaining some results; the evaluation of the decision's efficiency is based on those. The objectives targeted by the decision-maker consist, therefore, in emphasizing what kind of results he would like to obtain based on the decision he is going to take.

4. The problem's context. In concrete given situations, it rarely happens that the results of a decision to be exclusively determined by the decision taken, these results being influenced, more or less, by other elements (factors) that are under the control of the decision-maker only partially. These types of elements form what it can be considered the context of a problem, and we will call them *uncontrollable factors*. The economic decisions are usually taken depending on the reactions of some persons (consumers, competitors, salesmen) or on other uncontrollable factors, such as medium income, habits, traditions, trends, etc., which form together the context of the analyzed problem and it must be taken into consideration.

5. Degree of uncertainty. This aspect refers to the degree in which the behavior of the uncontrollable factors is unknown, and its effect on the consequences of decision. From this point of view, two categories of uncontrollable factors can be identified: uncontrollable factors for which the influence on the consequences of the decision are known in probabilistic sense and factors that have a completely unknown or insufficiently known behavior to which repartitions of probability that could characterize their influence on a decision's results can not be associated.

6. Consequences' manner of evaluation. Most of the times, the objectives targeted are presented through the description of the desired results' nature, frequently in a vague or ambiguous form: for example, it can be said that the growth of the turnover is targeted, but this will mean to explain what the turnover represents and how it is calculated. For the economic decisions, evaluation of possible results is done, usually, explicitly or implicitly, through the net benefits corresponding to those.

When the decision is taken, the decision-maker must take into account the context of the problem and, in this sense, an especially important role is hold by the *degree of uncertainty* on the consequences that might appear. The fact that most of the decisions relate to actions that will happen in the future leads to the manifestation of some unpredictable elements which determine the degree of uncertainty or the risk – on short, medium or long term. The degree of uncertainty ultimately reflects the decision-maker's level of knowledge regarding the relation between the possibilities of action at his disposition and the results (consequences) that can appear after choosing one of these possibilities of action. Taking into account the above mentioned, the decision problems are divided in three classes:

- i)* Decision problems *in conditions of certitude*, whenever the data of a problem are complete, have a high level of precision and lead to a single strategy for finding the optimum. A determinist economic-mathematical model will be used in this case;
- ii)* Decision problems *in conditions of uncertainty*, whenever there are relatively precise data that are still incomplete and the result of choosing an alternative can not be identify with precision. If the uncertainty can be measured from the probabilistic perspective, meaning the probability that a certain consequence will appear from a multitude of consequences after choosing an alternative can be determined, then it can be said this decision

problem is a *decision problem in hazardous/risky conditions*. A probabilistic mathematical problem will be used in this case.

iii) The decision problems in conditions of uncertainty, with a degree of uncertainty that can not be evaluated in probabilistic sense are called *decision problems in conditions of indeterminacy*, in which case a fuzzy (vague or informational) model will be used.

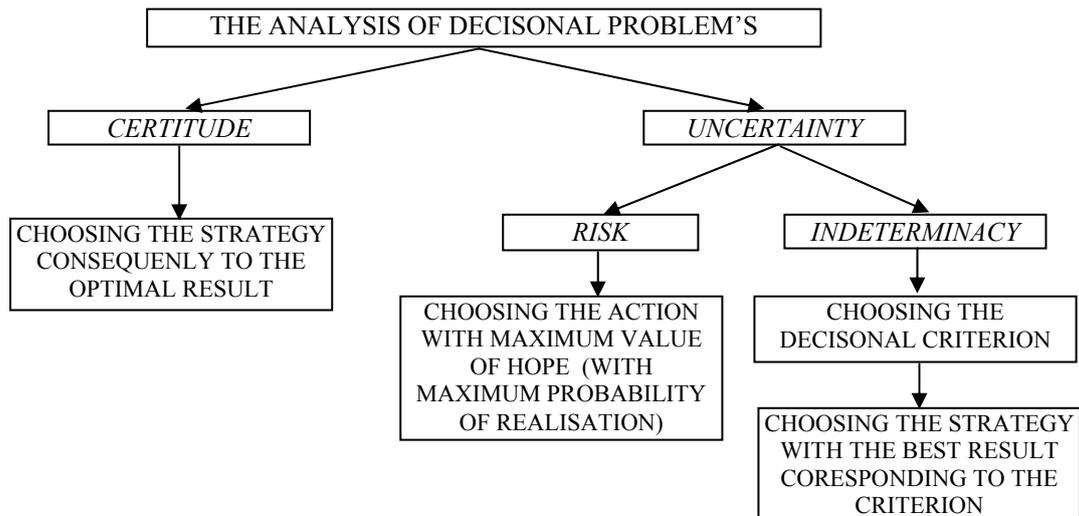


Figure 1. Types of decisions

The decisions in conditions of uncertainty are determined by the existence of a finite number of alternative strategies. Choosing the decision in conditions of uncertainty implies the prior assessment of the probability. The decisions in conditions of risk are usually referring to phenomena taking place on short terms (the frequency of spoilages, the dispersion of norms' realization etc.). The existence of information with low level of precision and still incomplete leads to the elaboration of heuristic decision models in which the intuition and experience of decision-maker have an important role. If precision and completeness of available data decrease simultaneously under a certain level, then either intuition or experience of the decision-maker can not capitalize on them; the decision will be taken at random.

2. ELABORATION STAGES OF THE DECISION

The process of taking a decision, pursuant to a defined objective, has clearly defined stages, as the following:

1. gathering the data;
2. selecting and ordering the data;
3. analyzing the data;
4. selection the solution and taking the decision;
5. putting the decision in practice and controlling the decision.

The first two stages define the analyzed problem, while the third assures the transformation of a particular situation in one with a general, and then individual, character. In the fourth stage, the optimization and adoption of the decision (transposing the real phenomenon real into a mathematic model, concomitantly with the reduction of the decision level) takes place, and in the fifth all action are identified.

The leader that has to take decisions must have the next indispensable aptitudes: the will to take a decision, the ability to calculate and the creativity. The more precise and clearly defined the problem is, the more reliable and accurate the decision becomes.

The analysis of the decision process's dominant characteristics conduct to divide the general methodology of the taking decision process in three stages: determinist, probabilistic and informational. Make these stages in this order ensure the taking of optimal decision. Make all three stages is not indispensable.

By monitoring the decision's analysis cycle, the following correlations could be made:

Table 1. The three stages of the general methodology of the taking decision process

Determinist Stage	Probabilistic Stage	Informational Stage
<p>The variables are well defined and correlated; the values are assigned; the importance of variables is evaluated without taking into consideration the uncertainty.</p> <p>Modeling Delimitation of the decision; nominalization of alternatives; determination of results; selection of variables; creation of structural models, preference of time values.</p> <p>Analysis Evaluation of the sensitivity to the decision variables and variables of state</p>	<p>Introduces probabilities for the important variables and deduce the estimations for the values' probabilities; introduces the preference of risk that guarantees the best solution in the stage of uncertainty.</p> <p>Modeling Coding the uncertainty in report to the variability of the data; coding the elements of risk</p> <p>Analysis Elaboration of the probabilistic distributions; evaluation of stochastic sensitivity; evaluation of the risk's sensitivity</p>	<p>Takes into consideration the results of the other stages to determine the economic value of uncertainty's elimination.</p> <p>Modeling Investigation of the modalities and possibilities of collecting the information.</p> <p>Analysis Evaluation of the economic sensitivity, respectively of the monetary value, so to be able to eliminate the uncertainty based on supplementary information</p>

3. THE BAYESIAN ANALYSIS OF A DECISION PROBLEM

3.1. Introduction

As far as the decision problems are concerned, we must also have a rational rule that will specify the manner in which an alternative must be chosen so to consider it the best (optimal) in the given situation. Such a rule is called *decision criterion*.

Most of the times, the economic decision problems are decision problems in conditions of uncertainty. The decision problems in conditions of uncertainty are also named “*games against nature*”, by “nature” understanding the assembly of uncontrollable factors that can influence the result of the decision. It is obvious that, in order to take a correct decision, the decision taker should act in concordance with the laws governing the behavior of uncontrollable factors (nature) and to exploit these laws so to obtain the maximum benefit possible. However, in many situations, the decision-maker is not aware of these laws or has insufficient information relative to the manner in which those will react in the moment of putting into practice de decision. The fact the decision-maker does not have complete information relative to the consequences of choosing an alternative can be explained by the ignorance of the problem’s context actual state. In the case of a concrete problem, it is taken into consideration a finite number of possible states of the problem’s context $S_1, S_2... S_n$, these states being chosen so to be mutually exclusive and exhaustive, meaning the problem’s context can be in only one of these states. If the decision-maker does not know the real state of the problem’s context, the possible states $S_1, S_2... S_n$ could be identified with a complete system of events from a field of events. In other words, the states $S_1, S_2... S_n$ can be considered events incompatible two by two (they are mutually exclusive) and their reunion is a cert event (they are exhaustive).

Let’s presume now the decision-maker would choose an alternative A and the state of the problem’s context would be S , then a well determined consequence appears, and it is evaluated through a “benefit” (payment) noted with $c(A, S)$. In the hypothesis the decision-maker has to choose between a finite number of alternatives A_1, A_2, \dots, A_m , and for the problem’s context a finite number of states S_1, S_2, \dots, S_n is taken into account, we will use notation c_{ij} for the payments $c(A_i, S_j)$. So, c_{ij} represents payment of the decision-maker when he chooses alternative A_i and the problem’s context actual state is S_j . Hence, the data of the problem can be synthesized in a matrix with m lines and n columns, each line corresponding to an alternative, and each column to a state of nature (context of the problems):

Table 2. Payment Matrix

Alternatives	States of nature			
	S_1	S_2	...	S_n
A_1	c_{11}	c_{12}	...	c_{1n}
A_2	c_{21}	c_{22}	...	c_{2n}
...
A_m	c_{m1}	c_{m2}	...	c_{mn}

The matrix $(c_{ij})_{m \times n}$ that includes all the possible payments of the decision-maker, depending on the alternative chosen and the actual state of nature, is also known as the *payment matrix* corresponding to the problem in discussion. The notion of payment matrix and not that of benefit matrix is used because there are situations in which the payment of the decision-maker expresses losses and not benefits (profits).

Example 1: Let's suppose that a firm F is preparing to launch on the market a new brand of product and it has to set the sale price. Because on the market there is already a brand of product with similar characteristics that is sold with the price p , it is considered that for the new brand it can be set a price bigger with 5 % than p , the same price p , or a price lower with 5% than p . The benefits of firm F will depend on the sale price of the new brand of product, but also on the reaction of the competitor, firm F_C , at the emergence on the market of this new trademark. We can presume the reaction of firm F_C can be manifested by keeping the same price p for their own product, or by the diminishment of this price with 5% or 10%. In the next table are presented the hypothetical profits (the payment matrix) for firm F, in report with the price of the new trademark and the reaction of the competitor firm F_C .

Table 3. The Payment Matrix for example 1

Price Variations of the firm F	Price Variations of the competitor firm F_C		
	$S_1: p$	$S_2: 0,95 p$	$S_3: 0,90 p$
$A_1: 1,05 p$	200	60	0
$A_2: p$	300	80	5
$A_3: 0,95 p$	250	100	10

If we don not have other information regarding the probable reaction of the competitor F_C and we know only the data from the previous table, the problem of determining a rule based on which the firm F will choose one of the three variants of price emerges.

For the problems of marketing, it rarely happens the decision-maker has no type of information concerning the possible states of the problem's context. Even if this information are not sufficient to determine the objective estimations of the different states' probabilities, the decision-maker can use subjective estimation of those, the problem becoming therefore a decision problem in conditions of risk.

If the probabilities awarded to nature's states are determined only based on the information available before taking the decision, without taking into consideration the possibilities to obtain supplementary information, these probabilities are called *a priori probabilities* of nature's states. In the *Bayesian theory (theory that uses the calculus of probabilities)* of decision, the analysis of a decision problem in conditions of risk, based only on the information available before taking the decision, it is called *analysis a priori* of problem. When the probabilities of nature's states are determined based both on the a priori information, and the supplementary information that could be obtained relative to the problem's context, it is said an *analysis a posteriori* of problem.

3.2. The analysis a priori of a decision problem

For the decision problem in conditions of risk, the decision criterion usually used is criterion of the **maximum expected benefit** and, respectively, the criterion of the **minimum expected benefit**, when the elements of the payment matrix represent losses for the decision-maker.

In general, if the elements of the payment matrix represent benefits for the decision-maker, and the probabilities of states S_1, S_2, \dots, S_n in this matrix are noted by p_1, p_2, \dots, p_n , then the indicator of efficiency in the case of alternative A_i , noted $f(A_i)$ is considered to be the medium benefit expected, meaning $f(A_i) = \sum_j c_{ij} p_j$

Conform to the maximum expected benefit criterion, an alternative A_{i_0} is considered optimal if the highest medium expected benefit corresponds to it, meaning: $f(A_{i_0}) = \max_i f(A_i) = \max_i \sum_j c_{ij} p_j$

For example, let's suppose that, for the previous problem, the decision-maker (firm F) has information based on which it believes that the probabilities for the competitor firm F_C to choose one of the prices corresponding to states S_1, S_2, S_3 are the following:

$$p(S_1)=p_1=0,6 \quad p(S_2)=p_2=0,3 \quad p(S_3)=p_3=0,1 \quad (1)$$

The expected benefits associated to each of the three alternatives are calculated as below:

$$\begin{aligned} f(A_1) &= 200 \times 0,6 + 60 \times 0,3 + 0 \times 0,1 = 138 \\ f(A_2) &= 300 \times 0,6 + 80 \times 0,3 + 5 \times 0,1 = 204,5 \\ f(A_3) &= 250 \times 0,6 + 100 \times 0,3 + 10 \times 0,1 = 181 \end{aligned} \quad (2)$$

Applying for this problem the criterion of the maximum expected benefit, we identify the optimal alternative as A_2 (determining a price equal with the present price of competitor firm).

It was considered, in the conditions of the given problem, that the probabilities for the competitor firm to choose one of the three prices, correspondent to states S_1, S_2, S_3 , do not depend on the variant of price the firm F would chose and this fact is unrealistic. It is obvious the firm F_C will react to the challenge of firm F and the price adopted by it will also depend on the firm F's variant of price. In this situation, instead of the probabilities $P(S_j)$ we must take into account the conditional probabilities $P(S_j/A_i)$ (probability that firm F_C adopts the price corresponding to state S_j , in the hypothesis the firm F chooses the variant of price corresponding to alternative A_i). We can assume, for example, that those conditional probabilities are given in table 4. Because states S_1, S_2, S_3 can be considered as a complete system of events, the sum of the conditional probabilities from each line must be equal to the unit.

Table 4. The conditional probabilities for example 1

Price variations of firm F	Price Variations of competitor firm F_C			
	$S_1: p$	$S_2: 0,95 p$	$S_3: 0,90 p$	Total
$A_1: 1,05 p$	0,7	0,2	0,1	1
$A_2: p$	0,4	0,2	0,4	1
$A_3: 0,95 p$	0,2	0,3	0,5	1

By using the expected benefits matrix from table 3 and the conditional probabilities from table 4, the benefits corresponding to each alternative become:

$$\begin{aligned} f(A_1) &= 200 \times 0,7 + 60 \times 0,2 + 0 \times 0,1 = 152 \\ f(A_2) &= 300 \times 0,4 + 80 \times 0,2 + 5 \times 0,4 = 138 \\ f(A_3) &= 250 \times 0,2 + 100 \times 0,3 + 10 \times 0,5 = 85 \end{aligned} \quad (3)$$

In this situation, the optimal alternative is A_1 , because the highest expected benefit corresponds to it.

3.3. The analysis a posteriori of a decision problem

We should suppose that, for a decision problem in conditions of risk, the decision-maker has considered he needs supplementary information and he is in their possession. The analysis a posteriori is referring to the manner in which the decision-maker can use this information to correct the probabilities a priori of the problem's context possible states. The probabilities that are corrected, also known as probabilities a posteriori, are going to be used for choosing the optimal alternative. In order to determine the probabilities a posteriori, it is used the Bayes formula from the probabilities theory, on which is based the Bayesian theory of decision.

Let S be one of the possible states of nature and note the probability a priori of this state with $P(S)$. We also should assume now the decision-maker has decided to obtain supplementary information, which lead to the formulation of a conclusion, noted with X , from the total lot of possible conclusions (results). Taking to account this result, the correction of the state S 's probability a priori can be made by replacing it with the conditioned probability $P(S/X)$, this being named probability a posteriori of state S . On the other hand, by using the properties of the conditional probabilities, we can write:

$$P(S/X) = \frac{P(S) \cdot P(X/S)}{P(X)} \quad (4)$$

And it would be sufficient, therefore, to know the probabilities $P(X/S)$ and $P(X)$, where $P(X/S)$ is the probability to obtain result X in the hypothesis the real state of nature is S , so to determine the probability a posteriori of state S . Let us assume now there are a finite number of possible states of nature S_1, S_2, \dots, S_n with the probabilities a priori $P(S_1), P(S_2), \dots, P(S_n)$. If the conditional probabilities $P(X/S_i)$, $i=1, 2, \dots, n$ would be known, then the probability the supplementary information to lead to result X can be determined by using the formula of total probability:

$$P(X) = P(S_1) P(X/S_1) + P(S_2) P(X/S_2) + \dots + P(S_n) P(X/S_n) \quad (5)$$

Hence, if the probabilities a priori of states S_1, S_2, \dots, S_n and the conditional probabilities $P(X/S_i)$, $i=1, 2, \dots, n$, are known, then the probabilities a posteriori of the nature's state can be calculated by using the Bayes formula:

$$P(S_i / X) = \frac{P(S_i) \cdot P(X/S_i)}{P(X)}, \quad i=1, 2, \dots, n \quad (6)$$

where $P(X)$ is calculated with the formula above (5).

Example 2: Let's suppose a firm is going to choose between three variants for the determination of the capacity of production necessary for a new brand (product), which will be noted A_1, A_2, A_3 . The profitability of the new product depends on the capacity of production that is to be determined, but also on the level of the demand for the respective product, which is still unknown, but it is considered that knowing the demand is at high, medium or low level would be enough. We will note with S_1, S_2, S_3 the three possible states of demand, corresponding to the demands at high, medium or low level. Depending on the alternative chosen for the capacity of production and the problem's context possible states, it is assumed the benefits that would be made by the firm are represented by the data from table 5. Based on the existing information regarding the consumers' behavior towards the introduction on the market of a similar brand, it is also assumed the probabilities a priori for the real demand are those from the last line of the table:

Table 5. The Payment Matrix for example 2

Alternative	States of the problem's context			Expected Benefit
	S_1	S_2	S_3	
A1	600	250	-100	250
A2	400	250	0	200
A3	100	80	50	80
$P(S_i)$	0,3	0,5	0,2	

It can be observed from the last column of table 5 that, consequently to the analysis a priori, it is recommended for the decision-maker to choose alternative A_1 (high level capacity), since the maximum expected benefit corresponds to it. However, this alternative is the only one for which there are 20% chances that, instead of benefits, the firm will record losses, and due to this fact, it has been decided that some supplementary investigations about the demand's real level must be made. The data obtained could not lead to the exact determination of the demand's level, but an evaluation of the precision with which these data can be used to estimate the level of demand was done. For example, the investigations lead to the fact that in the hypothesis the real level of demand is high, the data confirms a high level in 90% of the cases.

To express in a more concise form the possible situations, we are going to set some notations. We note with X_1, X_2, X_3 the events that are taking place when the data obtained as consequence of the research made, confirm a high, medium and low level of demand. The fact that, in the hypothesis the real state of the demand is S_1 (high level demand), this state is confirmed in 90% of the cases and that, in 10% of the cases, the data can lead to the conclusion demand would be at medium level can be expressed by using the usual notations for conditioned probabilities:

$$P(X_1/S_1)=0,90; P(X_2/S_1)=0,10 \tag{7}$$

On the other hand, if the demand's real level is high, the data gathered can not lead to the conclusion that it would be at low level, meaning we can write $P(X_3/S_1)=0$. In table 6 are given the values of all conditional probabilities $P(X_i/S_i)$:

Table 6. The conditional probabilities for example 2

The real level of demand	$P(X_1/S_i)$	$P(X_2/S_i)$	$P(X_3/S_i)$	Probabilities a priori of the states $P(S_i)$
S_1	0,90	0,10	0	0,3
S_2	0,15	0,80	0,05	0,5
S_3	0,05	0,20	0,75	0,2

Let's assume now that, consequently to the research made, the conclusion the demand is at medium level was reached, meaning the result X_2 was obtained. The probabilities a posteriori of states S_1, S_2, S_3 will be then:

$$P(S_i / X_2) = \frac{P(S_i)P(X_2 / S_i)}{P(X_2)}, \quad i=1, 2, 3 \tag{8}$$

where:

$$P(X_2)=P(S_1)P(X_2/S_1)+P(S_2)P(X_2/S_2)+ P(S_3)P(X_2/S_3)=0,3\cdot0,1+0,5\cdot0,8+0,2\cdot0,2=0,47 \tag{9}$$

So:

$$\begin{aligned}
 P(S_1 / X_2) &= \frac{0,3 \cdot 0,1}{0,47} = 0,064 \\
 P(S_2 / X_2) &= \frac{0,5 \cdot 0,8}{0,47} = 0,851 \\
 P(S_3 / X_2) &= \frac{0,2 \cdot 0,2}{0,47} = 0,085
 \end{aligned} \tag{10}$$

The probabilities a posteriori being determined, we can go further on to the determination a posteriori of the expected benefits corresponding to each alternative $A_i, i=1, 2, 3$:

$$\begin{aligned}
 f(A_1) &= P(S_1/X_2) \cdot S_1 + P(S_2/X_2) \cdot S_2 + P(S_3/X_2) \cdot S_3 = \\
 &= 0,064 \cdot 600 + 0,851 \cdot 250 + 0,085 \cdot (-100) = 251,15 \\
 f(A_2) &= P(S_1/X_2) \cdot S_1 + P(S_2/X_2) \cdot S_2 + P(S_3/X_2) \cdot S_3 = \\
 &= 0,064 \cdot 400 + 0,851 \cdot 250 + 0,085 \cdot 0 = 238,35 \\
 f(A_3) &= P(S_1/X_2) \cdot S_1 + P(S_2/X_2) \cdot S_2 + P(S_3/X_2) \cdot S_3 = \\
 &= 0,064 \cdot 100 + 0,851 \cdot 80 + 0,085 \cdot 50 = 78,73
 \end{aligned} \tag{11}$$

The final results are exposed in table 7:

Table 7. Expected benefit after a posteriori analysis for example 2

Alternative	The states of problem's context			Expected benefit a posteriori $f(A_i)$
	S_1	S_2	S_3	
A1	600	250	-100	251,15
A2	400	250	0	238,35
A3	100	80	50	78,73
Probabilities a posteriori $P(S_i/X_2)$	0,064	0,851	0,085	

The analysis a posteriori leads us to the conclusion the optimal alternative is A_1 , but, differently from the analysis a priori, we discover that the risk to lose 100 monetary units was reduced from 20% to 8,5% and this fact can strengthen the decision-maker's belief he has made the right choice.

REFERENCES:

- [1]. Ceocea, C. (2010) *Riscul în activitatea de management*, Editura Economică, București
- [2]. Kotler, Ph.; Keller, K. (2008) *Marketing Management (13 th Edition)*, Prentice Hall, New Jersey
- [3]. Lilien, L.G.; Kotler, Ph. (1992) *Marketing Models*, Prentice Hall, New Jersey
- [4]. Pekar, V.; Smadici, C. (1995) *Marketing – modelarea matematică a fenomenelor de piață*, Editura Universității „A.I. Cuza”, Iași

LEAN MANAGEMENT - THE WAY TO A PERFORMANT ENTERPRISE

**AMALIA VENERA TODORUȚ,
CECILIA IRINA RĂBONȚU, DORU CÎRNU ***

ABSTRACT: *In this work we approached issues related to new methods of production organization such as Lean Management, a method specific for a flexible production of great success which represents the guarantee for a performant enterprise. In this paper we presented the main concepts, the application and adaptation way in different contexts, both in industry and in services. We showed a modern tendency which is taking shape more and more in the contemporary economic context, such as the integration of this concept with the Six Sigma concept, and thus we can talk about Lean Six Sigma, as an integrator method which guarantees high-class quality and lower costs.*

KEY WORDS: *lean management, quality, performances, Six Sigma, the diminution of the defaults*

JEL CLASSIFICATION: *L15, L16, L25, M10, M11, M16*

1. INTRODUCTION

Researches on production technologies, operations and performance reflect the increasing context of industrial competition in the global economic environment. A key objective is the creation of a systematic knowledge base by applying the systemic approach and quantitative analysis, which will lead to a better understanding of fundamental factors, determinants of growth and industrial decline. An example is the Lean method and the Lean manufacturing principles, concepts and principles outlined after the researches on the international automotive industry.

* *Assoc. Prof., Ph.D., University „Constantin Brâncuși” of Târgu-Jiu, Romania,*
amalia_venera@yahoo.com

Assoc. Prof., Ph.D., University „Constantin Brâncuși” of Târgu-Jiu, Romania,
cecilia.rabontu@gmail.com

Assoc. Prof., Ph.D., University „Constantin Brâncuși” of Târgu-Jiu, Romania,
doru.cirnu@yahoo.com

The analysis of the Lean production concept is really interesting, a concept that depends on the field of industry, the source or initiation period in Lean of the respective organization and of its actual purpose in adopting the Lean methodology.

Lean production is "smooth" because it uses less of everything compared to large series production – half of the manufacturing space, half of the investment in equipment and half of the hours of designing a new product. It also requires much less storage of inventory, resulting in fewer defects and a growing variety of products (Năftănăilă, 2010).

At the same time Lean production is a philosophy of production which reduces the time between the customer order and manufacturing and the delivery of the requested product by eliminating the losses (Rother, et. al, 1999).

A particular interpretation of the Lean concept in the view of some specialists is that of a phenomenon of production that seeks to maximize the results of number one labor resource of the company: people. Hence, Lean is a way of thinking, of adapting to changes, of eliminating losses and a continuous improvement. There are many tools and techniques which, used together, maximize the efficiency of the human resource and with which a company may appear as "Lean" (Năftănăilă, 2010).

Centred on the principles of Just-in-time method (JIT), at the end of the last century, the concept of fluent production refers mainly to the production relations of an enterprise.

If the JIT method had as objective only the production of those products which would be sold, the one of fluent production wants the enterprise to be able to adapt to the rapid market fluctuations.

A Lean management system will be a slender and agile management system, able to adapt quickly to "all the changes in the environment". Lean management concept can be considered as an evolution of concepts of production, perfectly correlated with the conditions in which the twenty-first century enterprises develop (Badea, 2009).

Lean model focuses on the evolution process of changes and adaptations to changes and it is not just an idealized technological level. An organizational central concept is the sustainable enterprise, in which the Corporation is building in partnership with stakeholders the processes and mutual relations.

2. THE CHARACTERISTICS OF LEAN PRODUCTION

The Lean production refers to a new dynamic process of the production's evolution that covers all the aspects of the industrial operations (the products' development, manufacture, organization and human resources, the services for customers), including the customer-provider networks.

The main characteristics of Lean production are focused on customer, on reducing the losses, by the processes' simplicity, on prevention, etc., as it can be seen in the following table:

Table 1. The Characteristics of Lean Production

Characteristic	Characteristic's Analysis
Customer	The extern customer is the point of beginning and end. The maximization of value for the client must be searched. Optimization must be done around the customer and not around the internal operations. We should understand what the customer wants, in terms of price, delivery and quality – not what we can deliver.
Simplicity	Lean is not simple, but simplicity prevails. Simplicity in operations, in the system, in technology and control – this is the goal. Simplicity is achieved most easily by avoiding complexity and not by “rationality” exercises. Simplicity is given to the product by reducing the number of components and the detection of common components for all the product variants. Simplicity applies to suppliers by working with a few trusted partners. Simplicity is placed in the organization by creating factories devoted to a larger factory. Attention to complex computer systems, advanced and large scale automation, complex manufacturing lines, to complex awards. The smallest and simplest machines that meet quality requirements must be chosen.
Loss	Loss is endemic. Let's learn to recognize it and always seek to reduce it. The whole staff of the organization should always wear “glasses detection Muda”. Losses should be prevented through a good design of products and processes.
Process	Everything must be organized and thought in terms of process. It is necessary to think horizontally and not vertically. A major importance is focusing on how to move products and not people or services. A map must be created to better understand the process.
Visibility	It is necessary for all the operations to be visible and transparent as possible. It must be controlled by the viewer. We can thus speak about the visual factory. It is imposed to make faster and more easily to identify the moment when the operations and programs differ from the reference.
Regularity	It is spoken about regularity when we have no unpleasant surprises, meaning that each time is right. Our life is based on regularity and therefore the factories must be managed by the same principle. A repeater of products must be looked for and be managed by the same methods, to reduce inventories, improve quality and allow simple control. The “rhythmicity” of introducing new products shortens the development period and makes from innovation a rule, a habit.
Flow	It must be done so that things move in the rhythm of the customer requirements, piece by piece, if possible. It is necessary to synchronize transactions so as to obtain a just in time stream. Flow should be the goal at the cell level, in company and even at the level of the supply chains. Streams must be synchronized, both informational flows and physical flows. If a continuous flow can not be created, at least one piece or a small group, in a period of time, must be delivered.
Downstream Acquisition	We should try to work out the activity in the rhythm of the customers demand. It is necessary to avoid overproduction. It is necessary to support the systems of downstream acquisition. Acquisition must occur in the rhythm of the customer demand. The demand chain must be determined

	by the final customer and not to be distorted by the intermediaries' fluctuations ("bullwhip" effect).
Delay	The delay of activities and the involvement in the variety of products as late as possible are imposed, so as to maintain the flexibility and to reduce losses and risk. These characteristics are closely associated with the overproduction concept, but also include factory, equipment, information and inventory. To be noted that this strategy is not the same as starting an activity at the last moment but it is the attempt to maintain flexibility at the appropriate level.
Prevention	It is more efficient to prevent losses and problems than to check and correct them. The accent on evaluation and failure must be changed on prevention. The verification of processes and not of products means prevention.
Time	It is necessary to reduce the time of production, delivery and creating new products. It is better to use simultaneous, parallel and overlapping operations for design and support services. Never delay an action that adds value by one which does not add value. Time is the best general criterion for evaluation. If the reducing of time is a priority, it tends towards the right accomplishment of all the requirements – waste disposal, stream, downstream system and perfection.
Improvement	Improvement and especially continuous improvement is each and everyone's concern. Let's improve both by "strength" and passively both with small steps and revolutionary. Improvement does not only mean the reducing of losses, but also innovation.
Partnerships	It is benefic to look for cooperation actions, both internal, between functions and external with the suppliers. The emphasis must be placed on teams, not on individuals, both internally and externally. Employees are also partners. Trust must be built, which is based on the win - win principle concerning human efficacy.
Value Networks	The best opportunities for cost, quality, delivery and flexibility are found in the networks of cooperation. Thus the supply chains compete, and also each member who should add value. The concept from the one-dimensional supply chain to bi-dimensional value network must be extended.
Gemba	It is necessary to go where the action takes place, because the implementation is not done at the office but at work. The Gemba spirit must be encouraged.
Variance Reduction	Large fluctuations in output and in terms of quantity, in other words, variability affects, unfortunately, any process from widening of the supply chain demand to the dimensional variability. Variability should be reduced continuously, be measured, we should know its limitations and learn to distinguish between the natural variation and special events.
Participation	Workers must be offered the first chance to solve the problem. All the employees must be responsible for their activity success or failure. A real participation supposes that each and every person should say what he or she knows about the case in discussion.
Emphasis on Details	It is desirable to identify the smallest car, which then is multiplied up to the necessary capacity. The best possible value from the given equipment must be obtained and another one must be purchased after that. A

	maximum size of the factory must be specified so to maintain focus on the products families and to develop the people who manage it. It is better to place small factories close to the customer location and to deliver small quantities both internal and external, instead of making a few deliveries in larger quantities.
Trust	Trust allows this strap of bureaucracy and time to be overcome both internal and external. Building confidence in working with suppliers makes them confident to invest and share their knowledge. Internally, confidence allows the reducing of the hierarchical levels, the communication barriers and achieves a more creative organization.
Knowledge	Because, according to Peter Drucker, skilled workers are the engine of the today company, it is very important not only to create knowledge, but to distribute them. In the knowledge-based society, both explicit knowledge, and especially the tactics are essential because they create a sustainable advantage.

Source: processing (Năftănăilă, 2010)

Lean production combines the best characteristics of the handicraft production (high, individual quality) and those of the large series production (production in large quantities to satisfy at small prices the requests of a great number of customers).

3. THE INTEGRATION OF LEAN METHOD WITH SIX SIGMA

Six Sigma Lean Management is a synergistic approach which consists of integrating the best practices to improve the progress and increase the customer's satisfaction, followed by the corroboration in seven steps of the Six Sigma performance concepts in five DMAIC stages with the Lean Management concepts of low cost.

Six Sigma Lean Management vision is to delight the customer by delivering products and services at a global class level, at competitive prices, by reaching the Six Sigma performance level and the elimination of losses from everything that is production (Falniță, E., 2007). Therefore, many firms are looking for an approach that allows to combine both methodologies into an integrated system or improvement roadmap. However, the differences between the Six Sigma and Lean are profound:

An integrated improvement strategy has to take into consideration the differences and use them effectively:

- Lean projects are very tangible, visible, and can oftentimes be completed within a few days (whereas Six Sigma projects typically require a few months). An integrated approach should emphasize Lean projects during the initial phase of the deployment to increase momentum.
- Lean emphasizes broad principles coupled with practical recommendations to achieve improvements. For example, Lean suggests a technique to analyze and reduce changeover time that does not require sophisticated analysis and tools. However, Lean principles are oftentimes inadequate to solve some of the more complicated problems that require advanced analysis. Therefore, Six Sigma needs to be introduced during the first year of the deployment to ensure that the improvement roadmap includes a generic problem-solving approach.

- An integrated improvement program needs to be fuelled by a vision of the future state and by a pipeline of specific projects that will help close the gap between current and future state. Lean introduced Value Stream Mapping as the central tool to identify the gaps and to develop a list of projects that can be tackled using Lean or Six Sigma methodology.
- Whereas the Six Sigma process and tools can be applied to virtually every process and industry, the Lean approach is much more specific and the content needs to be adjusted to industry needs: For example, reducing set-up time in a plant that has lines dedicated to a single product is pointless. Therefore, the Lean curriculum needs to be adjusted to meet the needs of the specific business.
- Training is effective but only when combined with application. Lean principles are typically taught as separate workshops, with each workshop combining a short training session on the principle with direct application on the shop floor. Six Sigma training is broken down into the phases of the DMAIC process with time between each training session to apply the tools learned to the project. The extensive analysis required for Six Sigma projects suggests that a workshop structure as used for Lean training would not be effective.

Table 2. Comparing Lean and Six Sigma

	Lean	Six Sigma
Goal	Create flow and eliminate waste	Improve process capability and eliminate variation
Application	Primarily manufacturing processes	All business processes
Approach	Teaching principles and implementation based on best practice	Teaching a generic problem-solving approach relying on statistics
Project Selection	Driven by Value Stream Map	Various approaches
Infrastructure	Mostly ad-hoc, no or little formal training	Dedicated resources, broad-based training
Length of Projects	1 week to 3 months	2 to 6 months
Training	Learning by doing	Learning by doing

The integrated approach to process improvement (using Lean and Six Sigma) will include:

- Using Value Stream Mapping to develop a pipeline of projects that lend themselves either to applying Six Sigma or Lean tools.
- Teaching Lean principles first to increase momentum, introducing the Six Sigma process later on to tackle the more advanced problems.
- Adjusting the content of the training to the needs of the specific organization - while some manufacturing locations could benefit from implementing the Lean principles with respect to housekeeping, others will have these basics already in place and will be ready for advanced tools.

Both the Lean and Six Sigma methodologies have proven over the last twenty years that it is possible to achieve dramatic improvements in cost, quality, and time by focusing on process performance. Integrating Lean and Six Sigma can help to overcome the limitations of each approach applied exclusively, but you must overcome competing initiatives and camps (Taylor, G., 2008).

Both the Lean and the Six Sigma methodologies have proven over the last twenty years that it is possible to achieve dramatic improvements in cost, quality, and time by focusing on process performance. Whereas Six Sigma is focused on reducing variation and improving process yield by following a problem-solving approach using statistical tools, Lean is primarily concerned with eliminating waste and improving flow by following the Lean principles and a defined approach to implement each of these principles.

The impressive results companies such as Toyota, General Electric, Motorola, and many others have accomplished using either one of them and have inspired many other firms to follow their example. As a result, most companies have either a Lean or Six Sigma program in place. However, using either one of them alone has limitations: Six Sigma will eliminate defects but it will not address the question of how to optimize process flow; and the Lean principles exclude the advanced statistical tools often required to achieve the process capabilities needed to be truly “lean”.

Therefore, most practitioners consider these two methods as complementing each other. And while each approach can result in dramatic improvement, utilizing both methods simultaneously holds the promise of being able to address all types of process problems with the most appropriate toolkit. For example, inventory reduction not only requires reducing batch sizes and linking operations by using Lean, but also minimizing process variation by utilizing Six Sigma tools (Todoruț, A., Cîmu, D., 2010).

4. CONCLUSIONS

The greatest benefits from Lean model include the use of resources, a quick cycle of products development, a better quality at a smaller price, a greater flexibility and an ecologic system of production.

Lean production means, in summary, five minimisations and five maximizations.

Thus the five minimizations refer to the following:

- The minimization of material handling. Solutions with zero cost or low cost would be preferred, such as gravitational fall, handling the product only once;
- The minimization of distances. The avoidance of walkings through the creation of cells by combining the operations within a work centre;
- The minimization of efforts. Work centres must be designed ergonomically.
- The minimization of disorder. All centres must have semi-products and tools at the work stations, at equipments and products within the designed areas of production;
- The minimization of storage. A continuous minimization of the storage place for materials, for products in progress, finished products and for spare parts from the supply chain is required.

The five maximizations are: maximization of use, maximization of flexibility, maximization of the production flow, maximization of visibility and maximization of communication.

REFERENCES:

- [1]. **Badea, F.** (2009) *Contributions on the Lean Management in the current evolution of company*, Economy magazine, Management series, 12(1), pp.168-179
- [2]. **Cronemyr, P.** (2007) *maic versus DMADV Differences, Similarities and Synergies*, International Journal of Six Sigma and Competitive Advantage, 3(3), p.43
- [3]. **Falniță, E.** (2007) *Total Quality Management*, Mirton Publishing House, Timișoara
- [4]. **Isaic-Maniu, A.; Vodă, V.** (2008) *Six Sigma Approach, Interpretations, Controversies, Procedures*, Economica Publishing House
- [5]. **Năftănăilă, I.** (2010) *Lean și Meșterul Manole – evoluția producției Lean, 1. De la mit la realitate și de la realitate la posibilitate*, Revista Calitatea Acces la succes, 3, pp.23-30
- [6]. **Rother, M.; Shook, J.** (1999) *Learning to see: Value Stream Mapping to Add Value and Eliminate Muda*, Brookline, MA, The Lean Enterprise Institute
- [7]. **Thawani, S.** (2002) *Six Sigma Strategy for Organizational Excellence*, Total Quality Management, 15(5-6)
- [8]. **Todoruț, A.V.; Cîrnu, D.** (2009) *The relation among six sigma and other managerial techniques of improving the performances of the organizations*, Annals, of the University of Petroșani, 9(4)
- [9]. **Taylor, G.** (2008) *Lean Six Sigma Service Excellence: A Guide to Green Belt Certification and Bottom Line Improvement*. New York, NY: J. Ross Publishing, <http://books.google.co.uk/books?id=1VdYNwAACAAJ&dq>

CORPORATE FINANCIAL ANALYSIS AND LOCALIZATION CRITERIA - EMERGING VERSUS DEVELOPED COUNTRIES: CASE STUDY ON IT COMMERCIAL COMPANIES

**CRISTINA MARIA TRIANDAFIL,
PETRE BREZEANU ***

ABSTRACT: *This paper consists of a practical approach on corporate default valuation according to the localization criteria. There will be conducted a case-study on two samples of companies, one located into developed countries, the other into emerging countries, in order to highlight out potential differentiations in terms of corporate default assessment. The key concept is represented by the default point and its main drivers. The statistical perspective aims to reveal out both default point and corporate finance mechanisms characteristics according to the localization criteria.*

KEY WORDS: *default point, emerging, developed, risk*

JEL CLASSIFICATION: *F30, G15*

1. INTRODUCTION

Financial globalization determined credit expansion. In order to accomplish their growth potential, companies have looked for new business segments and finance resources. In the context of the actual borderless world, capital flows have been directed towards the most attractive spaces in terms of return. As higher return is equivalent always to higher risk, new techniques have been implemented in order to assess in a more accurate way credit risk.

Credit techniques are bi-dimensionally approached. They have been conceived both as a business development and risk mitigation modality. Credit derivatives

* *Ph.D. Student, Academy of Economic Studies, Bucharest, Romania,*
cristina_triandafil@yahoo.com

Prof., Ph.D., Academy of Economic Studies, Bucharest, Romania, brezeanupetre@yahoo.com

products have appeared as a necessity of credit support for business needs and also as a technique of risk protection/minimization.

Sophisticated finance structured products have been created in order to allow company to attract additional finance resources and also to protect from risk increase. The actual financial crisis which is deeply rooted into the credit derivative products has drawn attention to the credit risk assessment. Rating agencies have been accused of not being able to predict in an anti-cyclical way corporate default. Once the crisis has appeared, downgrade of debtors has been initiated and self-achieving anticipations have become predominant.

Thus, a deeper preoccupation for credit risk modeling is required, especially from the perspective of the implementation of a powerful model, capable of absorbing enough significant financial information from the internal environment of the enterprise and also integrating it into variables correlated one to another in a statistical founded manner. The motivation of the keen interest in the credit risk modeling is motivated by their support to portfolio management, credit derivatives pricing and bank regulation. These three dimensions of the credit models supportive approach have developed precisely in the context of the investing activities at the global level, closely related to derivatives pricing.

As long as more powerful models and techniques will be implemented, default probability will be predicted and quantified in a more accurate manner and derivative price will be correlated with the real financial status of the debtor. Jumping downgrades will be avoided and investors will be more protected. Portfolio managers will base on a more valid model. Bank regulation is supported by credit-risk models at the level of the capital requirements. Securitization allowed them to avoid excessive capital provisions in the light of Basel II, but meanwhile it determined excessive indebtedness and lack of liquidity.

The basic of all these relationships created between the multidimensional approach of credit-risk models derives from the correlation between credit, equity and business cycle. According to Choe, Masulis and Nanda (1993) theory, firms tend to issue more equity than debt in expansionary periods of the business cycle. Baker and Wurgler (2002) consider that firms are more likely to issue additional equity when their market values are high, relative to past market values while Marsh (1982) and Taggart (1977) appreciate that firms prefer to issue equity when the value of equity is relatively high, and to issue debt when interest rates are relatively low. It has already pointed out that there is a correlation between corporate rating and business cycle. Basel II agreement stipulated in 2001 that this correlation index amounts to 20% while in 2002-2003 it has been revised to 12%-24%.

This paper concentrates on corporate default valuation according to the localization criteria. There will be followed up a potential differentiation of the default risk drivers according to the localization criteria.

2. DATABASE AND METHODOLOGY DESCRIPTION

The sources the information was obtained from were the following: Hewlett-Packard Credit Division containing information relative to the Financial Statements of

various companies located both in emerging East European countries (Poland, Slovenia, Slovakia, Bulgaria, Czech, Romania); Economic Intelligence Unit site regarding the macroeconomic environment of the emerging East European countries.

The assembly of financial indicators that will be analyzed is the following: Current Liquidity ratio (I_1), Quick Liquidity ratio (I_2), Short Term Debt Cash-Flow Coverage (I_3), Return on Tangible Net Worth (I_4), Earnings before Taxes/Total Assets (I_5), Operating Expenses/Net sales (I_6), Debt/Tangible Net Worth (I_7), Interest Coverage (I_8), Short Term Debt/Total Debt (I_9), Leverage multiplier (I_{10}), AR turnover (I_{11}), AP turnover (I_{12}), Working Capital Turnover (I_{13}), Total Assets Turnover (I_{14}), Altman Z-score (I_{15}).

The methodology that will be followed up is based on the analysis of the output regression built up by the OLS procedure. The dependent variable will be represented by the default point (DP) computed as the distance between total debt and total assets. It has been pointed out that the default point lies between the value of assets and the value of the total debt, the difference between the two indicators highlighting how far the corporation is from the default. As long as the assets are highly superior to the total debts and the difference between the two indicators is exceedingly positive, corporation will be perceived as out of danger area. There have been used also 2 financial indicators reflecting the capital structure of the company: leverage multiplier and debt reported to tangible net worth. Leverage multiplier represented by the report between total assets and equity has been selected in order to get an insight into the self-financing policy of the enterprise. This variable is significant for the East European emerging countries because it reflects the internal finance resources. Indeed, in the context of capital market and banking system underdevelopment degree, internal finance resources are valorized to a high extent; moreover, since companies located into these countries are perceived as riskier, their internal finance resources are very important in order to get additional external resources.

The level of assets usually perceived as an indicator reflecting the size and the activity dynamic has been perceived lately by the finance resources providers as a covenant for the company, similarly to the Tangible Net Worth and its importance becomes much higher in the case of the companies located into East European countries. First of all there will be performed a financial analysis at the level of the debt reported to the tangible net worth and of the leverage multiplier relative to the companies based both in emerging and in developed countries. Then the financial analysis will focus on the descriptive statistics relative to the default point corresponding to corporations based in both emerging and developed countries.

The second part of the case-study will focus on identifying the main factors which contribute to the largest extent to the default point. There will be tested two regressions between default point as dependent variable and a set of financial indicators as independent variables which are related to.

The independent variables which are considered to exert an influence on the default point are Current Liquidity Ratio (I_2), Leverage multiplier (I_{10}), Debt/Tangible Net Worth (I_7), Working Capital Turnover (I_{13}), Return on Tangible Net Worth (I_4).

The statistic output will be analyzed in order to highlight out the impact of every indicator on the default point.

3. DESCRIPTIVE STATISTICS ANALYSIS

In order to get a deeper insight regarding the default point characteristic to the corporations based in emerging and developed countries, there have been selected a set of financial indicators relative to leverage. Analysts agreed on the fact that leverage is the main variable which impacts on the default point. Therefore, leverage multiplier and debt reported to tangible net worth have been selected out of the financial indicators reflecting the capital structure/solvency of the company.

The Mean and Median relative to the Debt reported to Tangible Net Worth (DTNW) are superior to the corporations based in the developed countries (22.6 and 17.48 versus 4.82 and 3.21) in comparison with the Median and the Mean corresponding to the emerging countries corporations.

The Maximum corresponding to the DTNW relative to developed countries corporations is highly superior to the one relative to the emerging countries (122.69 versus 45.58).

Table 2. Descriptive Statistics corresponding to the leverage ratios relative to emerging countries versus developed countries corporations

	DTNWEMER	LEVMULTEMER	DTNWDEV	LEVMULTDEV
Mean	4.820922	5.586039	22.6	8.919091
Median	3.21	4.16	17.48	9.32
Maximum	45.58	43.21	122.69	17.18
Minimum	-7.24	-6.24	0.49	1.38
Std. Dev.	8.41073	7.56561	26.20977	4.193002
Skewness	3.977484	3.844596	2.777634	0.084551
Kurtosis	19.33426	18.88299	10.93391	3.070775
Jarque-Bera	701.4401	661.7099	85.99053	0.030804
Probability	0	0	0	0.984716
Sum	245.867	284.888	497.2	196.22
Sum Sq. Dev.	3537.019	2861.923	14426	369.2066

Source: own processing

Corporations based in developed countries are highly leveraged in comparison with the corporations based in emerging countries. Since capital market and finance opportunities are more extended within developed countries, corporations are not reluctant to leverage. Indebtedness finance culture is implemented at the level of every corporation since their growth opportunities can be valorized by the intermediary of the external finance resources. A higher leverage is equivalent also to stronger corporate governance mechanisms specific to developed countries in opposition with the emerging countries where corporate governance is still undervaluated.

This conclusion is in line with the assumption made by Embrechts and Claessens (2002) according to which companies based in emerging countries focus on self-financing; pecking order theory is validated mainly at their level. Statistics

corresponding to leverage multiplier follow-up the same direction: corresponding mean and median are superior for the companies based in developed countries (5.86 and 4.16 versus 8.91 and 9.32) which subscribes to the idea that equity is lower in the case of the developed countries.

Business is ran out mostly by the intermediary of the externally attracted funds; as for the emerging countries, high value of equity can be explained both by the pecking order theory and by the impossibility for firms to attract external resources. Moreover, in order to get more external funds, firms must comply with the security/covenant requirement (meaning it has to provide creditors with enough collateral proved by a high level of equity).

The arbitrage emerging versus developed concerning leverage multiplier is not exceedingly superior as in the case of the debt reported to tangible net worth. The standard deviations corresponding to the two financial indicators show out a high degree of volatility at the level of the Debt reported to Tangible Net Worth specific to developed countries corporations (26.2 versus 8.41) which is in line with the assumption that their capital structure is more dynamic. Owing to their strong corporate governance mechanisms, leverage degree can change from one period to another, which strengthens the idea of capital structure flexibility, fully adapted to the business needs.

Table 3. Descriptive Statistics corresponding to Default Point (DP) relative to emerging countries versus developed countries corporations

	DPGENLEV	DPEMER	DPDEV
Mean	-358.8479	76.51176	-1368.091
Median	99	100	-798.5
Maximum	100	100	100
Minimum	-10601	-835	-10601
Std. Dev.	1416.321	131.4012	2304.149
Skewness	-5.694516	-6.743334	-3.192425
Kurtosis	39.5848	47.24085	13.04468
Jarque-Bera	4465.646	4545.679	129.8567
Probability	0	0	0
Sum	-26195.9	3902.1	-30098
Sum Sq. Dev.	1.44E+08	863313.5	1.11E+08

Source: own processing

Default point descriptive statistics point out the fact that emerging countries corporations may default even if the difference between the two indicators is still high (from -835 to 100) while for the corporations based in developed countries, default point is touched when the value of assets is highly exceeded by the total debts; it may reach from -10601 to 100. The mean relative to the emerging countries default point is 76.51 while for the developed countries it reaches -1368.091.

This finding highlight out those emerging countries companies are more exposed to default probability than those based in developed countries. Developed

countries corporations can afford negative equity while those based in emerging countries ca not afford high leverage degree.

Table 4. Regression output regarding the main determinants of the corporate default point within emerging countries

DEPENDENT VARIABLE: DPEMERG				
Method: Least Squares				
Date: 01/12/08 Time: 23:32				
Sample(adjusted): 1 51				
Included observations: 75 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
GRAPHVAR2	-2.11E-12	4.96E-13	-4.25792	0.0001
GRAPHVAR7	-100	2.47E-13	-4.05E+14	0
GRAPHVAR10	100	2.77E-13	3.61E+14	0
GRAPHNEWVAR13	-5.76E-15	2.73E-15	-2.1118	0.04
R-squared	1	Mean dependent var		76.51176
Adjusted R-squared	1	S.D. dependent var		131.4012
S.E. of regression	1.87E-12	Akaike info criterion		-51.0975
Sum squared resid	1.64E-22	Schwarz criterion		-50.946
Log likelihood	1306.985	Durbin-Watson stat		1.387118

Source: own processing

4. DISCUSSIONS

In order to identify the main factors which impact default point according to developed versus emerging countries corporations, two regressions have been built up, conceiving default point as dependent variable determined by a series of variables such as Current.

Table 5. Regression output regarding the main determinants of the corporate default point within developed countries

DEPENDENT VARIABLE: DPDEV				
Method: Least Squares				
Date: 01/13/08 Time: 00:10				
Sample(adjusted): 2 22				
Included observations: 75 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
GRAPHVAR2	-1301.5	931.9936	-1.39647	0.1805
GRAPHVAR4	-9.51365	11.01178	-0.86395	0.3996
GRAPHVAR7	2.016008	41.06485	0.049093	0.9614
GRAPHNEWVAR13	-9.13874	21.69218	-0.42129	0.6788
R-squared	0.14536	Mean dependent var		-1395.81
Adjusted R-squared	-0.00546	S.D. dependent var		2357.288
S.E. of regression	2363.713	Akaike info criterion		18.5435
Sum squared resid	94981360	Schwarz criterion		18.74245
Log likelihood	-190.707	Durbin-Watson stat		1.595879

Source: own processing

Liquidity Ratio (I_2), Leverage multiplier (I_{10}), Debt/Tangible Net Worth (I_7), Working Capital Turnover (I_{13}), Return on Tangible Net Worth (I_4).

As for the emerging countries, default point appears to be closely determined by the whole series of financial indicators.

The R-squared coefficient is 1 which indicates a deep relation between default point and the financial indicators reflecting liquidity, solvency and activity.

The most significant factors are represented by leverage multiplier and debt reported to tangible net worth which highlight out that leverage is the main corporate default driver. Default point is not triggered in a significant manner by any of the liquidity, solvency, profitability or activity indicators.

The R-squared coefficient is excessively lower (0.14536) which points out that within developed countries default is not determined strictly by leverage or by other commonly known factors. This finding is supported mainly by the low values of the default points.

5. CONCLUSIONS

This paper focused on corporate default assessment; the approach is a differentiated one in accordance with the localization criteria, respectively emerging versus developed countries. Statistical tests highlighted out that companies based in developed countries have a higher leverage and the gap between assets and total debts value is highly negative in comparison with the differential relative to emerging countries. Default point appeared not to be impacted by any financial variable characteristic to the internal environment of the company.

In opposition with the corporations located in developed countries, the corporate default point characteristic to the emerging ones is highly impacted by the level of the financial indicators reflecting liquidity, profitability, activity and solvency of the company. For the years to come, companies based in emerging countries will increase their leverage since capital market and finance opportunities will develop and their default point will have the tendency to become positive too.

From the perspective of the credit-risk management strategies, it is obvious that developed countries corporations currently apply more strict credit management strategies although they have significant leverage potential. This finding is based on the fact that they are perceived as being riskier because of the macroeconomic volatility too. The corporations based in developed countries apply more flexible credit management strategies. As in the future leverage corresponding to the corporations located into emerging countries will increase, credit risk management strategies will become more flexible too.

6. ACKNOWLEDGEMENTS

This paper is part of the research grant PN2 – IDEI/2008 - *The analysis of the economic and financial risk characteristic to companies located in CEE countries: impact on the finance making-up decision process*, code 1795, provided by CNCSIS-UEFISCU. The remaining errors are ours.

REFERENCES:

- [1]. **Cohen, D.** (2007) *Incorporating default risk into Hamada's Equation for application to capital structure*, MPRA Press, <http://mpra.ub.uni-muenchen.de>
- [2]. **Dangl, T.; Zechner, J.** (2006) *Credit risk and Dynamic Capital Structure Choice*, Vienna University Press, www.creditrisk.com
- [3]. **Davydenko, S.** (2005) *When do firms default? A study on the default boundary*, London Business School Press, www.creditrisk.com
- [4]. **Dwyer, D.** (2005) *Examples of overfitting encountered when building private firm default prediction models*, New York: Moody's KMV, www.moody's.com/whitepapers
- [5]. **Dwyer, D.** (2007) *Expected Default Frequency Enhancements*, New York: Moody's KMV, www.moody's.com/whitepapers
- [6]. **Elizalde, A.** (2005a) *Credit Risk Models I: Default Correlation in Intensity Models*, www.abelizalde.com
- [7]. **Elizalde, A.** (2005b) *Credit Risk Models II: Structural Models*, www.abelizalde.com
- [8]. **Elizalde, A.** (2006) *Credit Risk Models III: Reconciliation Reduced-Structural Models*, www.abelizalde.com
- [9]. **Ericsson, J.; Reneby, J.** (2005) *Can Structural Models Price Default Risk: Evidence from Bond and Credit Derivative Market*, McGill University Press
- [10]. **Hackbarth, D.; Miao, J.; Morellec, E.** (2004) *Capital Structure, Credit-Risk and Macroeconomic Conditions*, HEC University Press, <http://papers.ssrn.com>
- [11]. **Hochrainer, S.** (2006) *Financial natural disaster risk management for developing countries*, International Institute for Applied Systems Analysis Press, <http://papers.ssrn.com>
- [12]. **Peter, M.; Grandes, M.** (2005) *How important is sovereign risk in determining corporate default premia?*, International Monetary Fund Press, www.imf.org.com/research
- [13]. **Rocha, K.; Garcia, A.** (2004) *Term Structure of Sovereign Spreads in Emerging Markets - A Calibration Approach for Structural Model*, IPEA Press, Brazil, <http://papers.ssrn.com>
- [14]. **Saretto, A.** (2004) *Predicting and Pricing the Probability of Default*, UCLA Press, <http://papers.ssrn.com>
- [15]. **Schaffer, R.; Sjolín, M.; Sundin, A.** (2007) *Credit-risk – a structural model with jumps and correlations*, Lund University Press, <http://papers.ssrn.com>
- [16]. **Stein, R.** (2005) *Evidence on the incompleteness of Merton-Type Structural Models for Default Prediction*, New York: Moody's KMV, www.moody's.com/whitepapers
- [17]. **Stein, R.** (2005) *The relationship between default prediction and lending profits: Integrating ROC analysis and loan pricing*, Journal of Banking and Finance, 29, 1213-1236

ACCOUNTING ETHICS - RESPONSIBILITY VERSUS CREATIVITY

VALENTIN IOAN UȘURELU, MIOARA MARIN (NEDELCU),
ALINA ELENA DANAILĂ (ANDREI),
DANIELA LOGHIN *

ABSTRACT: *Professional accountants are ordered in some point in their life to take certain decisions that are ethical or not. Accounting ethics is an important aspect of an accountant's work. In the last decades has increased so much interest in accounting ethics so that the financial statements should be prepared to come to include a descriptive report of accounting professionals who have created and filled these situations. This report should include any information considered relevant about factors that influence ethical behaviour. The present research aims to show what is accounting ethics, what is the purpose of the National Code of Ethics for Professional Accountants of Romania, what is creative accounting and ethical behaviour that depends on an accountant, what are the reasons for the use of creative accounting and also what are its main practices.*

KEY WORDS: *accounting ethics, responsibility, creative accounting, ethical behaviour, code of ethics*

JEL CLASSIFICATION: *M41*

1. INTRODUCTION

Ethics is all rules of conduct shared by a particular community, rules that are based on the distinction between good and evil. Morality is all the principles of universal normative dimension (often dogmatic), based on the distinction between good and evil (Wundenburger, 1993, p. XIV). Professional ethics is recognized as a science which deals with the study of professionals in meeting the obligations and rights of their professional activities. Professional ethics is a reflective and critical

* *Ph.D. Student, "Valahia" University of Târgoviște, Romania, valiusurelu@yahoo.com
Ph.D. Student, "Valahia" University of Târgoviște, Romania, marinmioara_nr19@yahoo.com
Ph.D. Student, "Valahia" University of Târgoviște, Romania, alina.danaila77@yahoo.com
Ph.D. Student, "Valahia" University of Târgoviște, Romania, dana_lg2001@yahoo.com*

discipline. It is located at the intersection of moral philosophy with particular ethics of various categories of occupations. The central issue of the introduction of ethics in professions, although there are already laws is because the law usually acts after an infringement has occurred. Border and ethical practices are believed to act preventively (Airaksinen, 1998, pp 671-672). Luca Pacioli, the "Father of Accounting", wrote on accounting ethics in his first book *Summa de arithmetica, geometria, proportioni, et proportionalita*, published in 1494. Ethical standards have since then been developed through government groups, professional organizations, and independent companies. These various groups have led accountants to follow several codes of ethics to perform their duties in a professional work environment. Accountants must follow the code of ethics set out by the professional body of which they are a member.

Creative accounting provides a formidable challenge for the accounting profession. The problem is an international one, accounting policies choice being a particular problem for the Anglo-American tradition and handling transactions is a particular problem for the continental European tradition. There is a variety of managers' motivation for creative accounting practices. Accountants who accept the ethical challenge of creative accounting must be aware of the abuse in the choice of accounting practices and handling transactions.

2. NATIONAL CODE OF ETHICS FOR PROFESSIONAL ACCOUNTANTS OF ROMANIA

The national Code of Ethics for Professional Accountants of Romania establishes rules of conduct for professional accountants and formulates basic principles to be followed by professional accountants to achieve common goals. Romania accountants and entities operating in different sectors of national economy as freelancers or as employees; basic purpose of the Code, but must always be respected.

National Code of Ethics for Professional Accountants of Romania is divided into three parts. Part A establishes the fundamental principles of professional ethics for professional accountants and provides a conceptual framework for applying these principles. Conceptual framework provides guidance on fundamental ethical principles. Professional accountants are required to apply this conceptual framework to identify threats to compliance with the fundamental principles in assessing their significance and if these threats are other than clearly insignificant to apply safeguards to eliminate or reduce to an acceptable level so as not to be compromised compliance with fundamental principles. Parts B and C illustrates how the conceptual framework should be applied in specific situations.

They provide examples of safeguards that might be appropriate to address threats to compliance with the fundamental principles and also provides examples of situations where safeguards are not available to address threats and therefore, activity or relationship that creates threats should be avoided. Part B addresses to independent professional accountants. Part C applies to employed professional accountants. Independent accounting professionals may also find guidance on their specific situations, in Part C.

Code recognizes that accounting profession objectives are established to meet the highest standards of professionalism, to achieve the highest levels of performance and meet the public interest. Achieving these goals involves meeting four basic requirements:

- *Credibility*. Throughout society there is need for credibility in information and information systems.
- *Professionalism*. There is a need for customers, employers and other stakeholders can be clearly identified those accounting professionals.
- *Service quality*. It requires ensuring that all services obtained from the professional accountant are carried to the highest standard of performance.
- *Confidence*. Professional accountants service users must be able to feel confident that there is a framework of professional ethics governing the provision of those services.

Circumstances in which professional accountants operate may allow the emergence of threats to compliance with fundamental principles. It's impossible to define every situation that leaves such threats and specific measures to be taken to mitigate them. Moreover, the nature of tasks and assignments can vary, therefore there may be different threats that require the application of other protective measures. Code offers a general framework that can assist the professional accountant to identify, assess and overcome these threats in accordance with fundamental principles. If identified threats are other than clearly insignificant, a professional accountant should, where appropriate, apply safeguards to eliminate or reduce to an acceptable level so that compliance with fundamental principles not to be compromised.

A professional accountant should respect the following basic principles:

(a) *Integrity*. A professional accountant should be straight and honest in all professional and business relationships.

(b) *Objectivity*. A professional accountant should be impartial and must not allow prejudice, confusion, conflicts of interest and unwanted influence to interfere with professional or business judgments.

(c) *Professional competence and prudence*. A professional accountant has a continuing duty to maintain knowledge and skill level necessary to ensure that a client or employer receives competent professional service based on the latest developments in practical. A professional accountant should act with caution and in accordance with applicable technical and professional standards in providing professional services.

(d) *Privacy*. A professional accountant should respect the confidentiality of information acquired as a result of professional or business relationship and should not disclose such information to any third party without specific authorization, unless there is a right. Confidential information obtained in a professional or business relationships should not be used for personal advantage of the professional accountant or third parties.

(e) *Professional behavior*. A professional accountant should comply with relevant laws and regulations and should avoid any action that can discredit the profession.

(f) *Respect for technical and professional standards*. Professional accountant should carry out professional duties in accordance with relevant technical and

professional. Professional accountants have a duty to perform with skill and care instructions provided to the client or employer that are compatible with the requirements of integrity, objectivity and, if self-employed accountants, with independence. In addition, they must comply with professional and technical standards issued by: IFAC, IASB CECCAR, CAFR and relevant legislation.

3. THE ETHICS OF ACCOUNTANTS AND THE CREATIVE ACCOUNTING

Accountants can use their knowledge of accounting rules to manipulate the figures reported in the accounts of a business. The term creative accounting is widely used to describe accepted accounting techniques which permit corporations to report financial results that may not accurately portray the substance of their business activities ... creative accounting is recognized as a synonym for deceptive accounting. A vision concerning accounting engineering, but also the most complex is exposed by Naser, considering it: “1) the process by which, given the existence of some gaps in the rules, the accounting figures are manipulated and by taking advantage of the flexibility, there are chosen those measurement and information practices that allow the transformation of the summaries of what it should be in what managers want; 2) the process by which transactions are structured in such a way to allow the “production” of the desired accounting result” (Naser, 1993, pp . 59).

Creative accounting methods are noteworthy because they remain in use as generally accepted accounting principles, even though they have been shown to be deceptive in many cases (Metcalf, 1977, pp. 188). Every company in the country is fiddling its profits. Every set of published accounts is based on books which have been gently cooked or completely roasted ... this deception is all in perfectly good taste. It is legitimate. It is creative accounting. (Griffiths, 1992, pp. 1)

As IFRS 1 ‘The financial statements’ reporting’ in order to bring out and to present the right financial information, the following conditions have to be taken into account:

- The concordance with IFRS stipulations;
- The possibility to depart from IFRS, if according to the stipulation the right information is not obtained;
- The reporting of additional information in order to present a complete image of transactions and events.

Generally, the creative accounting is badly treated, as a negative creation, designed to prepare the financial statements in order to respond managers’ requirements regarding the company’s financial position and performance. Therefore, the financial statements are rather a misrepresentation of the company’s performance than a true reporting. (Balaciu & Pop, 2008, pp. 935-940)

In line with the Aristotelian tradition, Mele’ (2005, pp.97-109) suggests ethical behavior of a person in accounting, as in any other human activity, depends on:

Moral sensitivity, which could be described as how the subject comprehends the ethical dimension of a situation. Human beings have a certain capacity to feel other’s people needs. In the face of certain situations we experience feelings of compassion, solidarity, sympathy for a noble cause, and other moral sentiments. In

accounting, one can feel that a practice can adversely or favorably affects some people. But there are also sentiments of greed, self-sufficiency or even fear which can be stronger than those related to good behavior. Sentiments can also lead to attitudes of sentimentalism, the morality of which could be questioned.

Moral judgment, or capacity to judge which alternatives are ethically acceptable and which are not and to determine the uprightness of the intention. Good behavior requires deliberation and deciding to carry out an action. Making sound moral judgments is previous to making a good decision. In this deliberation, practical wisdom plays a crucial role. It fosters upright moral reasoning by taking into account universal principles and the pertinent circumstances of each situation. Furthermore, some other relevant virtues in accounting, such as objectivity, open-mindedness, insight and perspicacity can be considered as integrated within practical wisdom.

Moral motivation, understood as willingness to take the moral course of action, placing moral values (human goods) above other values, and taking personal responsibility for moral outcomes. Frequently, moral motivation is the driving force for making good moral judgments but it plays a crucial role in selecting the right action and in executing it. Practical wisdom and transitive moral virtues foster moral motivation, since they give a permanent motivation for acting well.

Moral virtues or permanent attitudes and interior strength for moral behavior. Among these virtues, those which have special relevance to accounting are fairness, integrity, truthfulness, honesty, loyalty, faithfulness, trustworthiness, service to the common good, gratitude and benevolence. Courage, perseverance, competence, diligence, professional will, humility, and other self-mastering virtues which help to defeat inner resistance to act as one should. Practical wisdom, as has been said, provides capacity to perceive the right means for each virtue.

Discussions of creative accounting have focused mainly on the impact on decision of investors in the stock market. Reasons for the directors of listed companies to seek to manipulate the accounts are as follows (Amat et. al., 2009):

a) Income smoothing. Companies generally prefer to report a steady trend of growth in profit rather than to show volatile profits with a series of dramatic rises and falls. This is achieved by making unnecessarily high provisions for liabilities and against asset values in good years so that these provisions can be reduced, thereby improving reported profits, in bad years. Advocates of this approach argue that it is a measure against the 'short-termism' of judging an investment on the basis of the yields achieved in the immediate following years. It also avoids raising expectations so high in good years that the company is unable to deliver what is required subsequently.

b) A variant on income smoothing is to manipulate profit to tie in to forecasts. Fox (1997) reports on how accounting policies at Microsoft are designed, within the normal accounting rules, to match reported earnings to profit forecasts. When Microsoft sell software a large part of the profit is deferred to future years to cover potential upgrade and customer support costs. This perfectly respectable, and highly conservative, accounting policy means that future earnings are easy to predict.

c) Company directors may keep an income-boosting accounting policy change in hand to distract attention from unwelcome news.

d) Creative accounting may help maintain or boost the share price both by reducing the apparent levels of borrowing, so making the company appear subject to less risk, and by creating the appearance of a good profit trend. This helps the company to raise capital from new share issues, offer their own shares in takeover bids, and resist takeover by other companies.

e) If the directors engage in 'insider dealing' in their company's shares they can use creative accounting to delay the release of information for the market, thereby enhancing their opportunity to benefit from inside knowledge.

4. CREATIVE ACCOUNTING PRACTICES

In order to tell if an enterprise uses one or more creative accounting practices, it is necessary to make a classification of these practices. Thus, according to Raileanu and al. (2010, pp. 12-14), such a classification is based on the revenue, expenses, assets and liabilities. To these are added creative practices used in the preparation of profit and loss account and cash flow statement. Specifically, this classification refers to:

- Recognition of premature or fictitious revenue;
- Policies of aggressive capitalization and extended amortization periods of use;
- Inaccurate reporting of assets and liabilities;
- Creativity manifested in the profit and loss account;
- Issues related to reporting cash flows.

a) *Recognition of premature revenue* means recognition of real sales revenues at an earlier date than that which would have been used. It is the case of companies that receive commissions that refers to an extended period, but which is early recognized. *Recognition of fictitious revenue* involves the registration of some inexistent sales incomes.

b) *Policies of aggressive capitalization and extended amortization periods of use.* Unlike enterprises that improve their results by increasing revenue, some companies increase their result by minimizing costs. They minimize their costs by aggressive capitalization of costs that should affect the profit and loss account also by depreciating amounts for extended periods. There are cases where expenditure to be capitalized is not easily determined and thus, it is recommended to appeal to professional judgment in order to determine whether or not capitalization is required. These are items such as software development costs, advertising costs and development costs. When an expense is capitalized, it is created an asset to be amortized over its useful life period, so the influence on the result is positive. Also, another practice to reduce costs and increase the result is one of using extended amortization periods for previously capitalized costs.

c) *Inaccurate reporting of assets and liabilities.* In this category are included assets not submitted to amortization such as receivables, inventories and investments. By overestimating the degree of collection of receivables, it is reduced an operating expense. There is also the possibility that a loss to be deferred: in the case of stocks or investment, companies do not diminish their value as a result of lower market price. Also, in this category are included the understatement share of debt.

d) *Creativity manifested in the profit and loss account* involves presenting different levels of income components, focusing more on the classification of elements than their manner of recording transactions. For example, enterprises can have a tremendous benefit in the “other income” category or a current operating expense as being extraordinary. The consequence of such practices has apparently higher current results, without being affected overall net result.

e) *Issues related to reporting cash flows.* The cash flow statement divides changes in cash and cash equivalents in three components: cash flows from or used in operating activities, investment and financing. Given the importance of cash flow from operating activities, the higher their level is, the company’s ability to generate sustainable results is higher.

To increase its operating cash flow, companies can classify an operating expenditure as an item of investment or financing. Similarly, a collection of investment or financing activities may be classified as an operating item. Such actions will not affect the total changes in cash flows. For example, companies that capitalize software development costs will report the capitalized amounts as payments related to investment and not operating activities. So a company that capitalizes a greater share of costs will provide a higher operating cash flow value than enterprises that expense all software development costs.

5. CONCLUSIONS

Creative accounting offers a formidable challenge to the accounting profession. Professional accountants need an education that would ensure the specific application knowledge necessary to practice accounting ethics and morals. To be considered ethical, accounting practice should include not only compliance with specific rules and laws. The process of being ethical has to include the process of interpreting the underlying motives and theories. To be truly ethical, professional accountant must know why certain actions are good and others are bad.

In order to be able to do that, it is essential to develop values and virtues. Since values provide a stimulus to act in a certain manner, and virtues are permanent dispositions promoting ethical behaviour, combined together can shape characters. This allows accountants to resist negative pressures of the environment, and permits them to make moral decisions.

Also, knowing the rules does not give one an answer for every type of situation. They exist to provide guidelines, but because circumstances vary, there never is one answer. Therefore, values and virtues combined with rules give accountants enough insight to make a judgment. A full ethics education to link the ethical values and moral virtues of accountants with applicable laws, requires that financial statements drawn up to include a descriptive report of accounting professionals who have created and filled these situations. This report should include any information considered relevant about factors that influence ethical behaviour.

A solution to limit creative accounting practice would be imposing a regulatory accounting system which would strengthen accounting standards.

REFERENCES:

- [1]. **Amat, O.; Blake, J.; Dowds, J.** (2009) *The ethics of creative accounting*, available online at: <http://www.recercat.net/bitstream/2072/495/1/349.pdf>, retrieved at 1.10.2010
- [2]. **Airaksinen, T.** (1998) *Professional Ethics*, în *Encyclopedia of Applied Ethics*, 3, Academic Press, pp.671-682
- [3]. **Balaciu, D.; Pop, C.M.** (2008) *Is creative accounting a form of manipulation?*, „Analele Universității din Oradea”, seria Științe Economice, Volumul III, Secțiunea: Finanțe, Banci și Contabilitate, Tom XVII, pp.35-940
- [4]. **Griffiths, I.** (1992) *Creative Accounting: How to make your profits what you want them to be* (London: Routledge, First published in 1986)
- [5]. **Melé, D.** (2005) *Ethical Education in Accounting: Integrating Rules, Values and Virtues*, *Journal of Business Ethics*, 57, pp.97-109
- [6]. **Metcalfe, L.** (1977) *The Accounting Establishment*, Staff study as the Chairman of the US Senate Subcommittee (Washington, D.C.: The United States Government Printing Office)
- [7]. **Naser, K.** (1993) *Creative financial accounting: its nature and use*, Hemel Hempstead: Prentice Hall
- [8]. **Raileanu, V.; Manea, C.L.; Rapencu, C.** (2010) *Contabilitatea creativa – note de curs*, available online at: <http://www.cig.ase.ro/rof/lydiamanea/esurse/Master%20CCE%20-%20Suport%20curs%20contabilitate%20creativa%202009-2010.pdf>, retrieved at 1.10.2010
- [9]. **Wundenburger, J.J.** (1993) *Questions d'éthique*, Presses Universitaires de France
- [10]. **CECCAR** (2007) *Codul etic național al profesioniștilor contabili (editia a IV-a, revizuita)*, Editura CECCAR

INFLATION TARGETING – BETWEEN THEORY AND REALITY

**MARIA VASILESCU,
MARIANA CLAUDIA MUNGIU-PUPĂZAN ***

ABSTRACT: *The paper provides an analysis of the general inflation targeting framework and its implications on macroeconomic performance improvement. Usually, the strategies are similar across countries, but specific conditions related to financial system stability, bank independence, transparency or credibility may differ from country to country, despite their level of development. It also examines whether certain conditions have to be met before emerging countries pass to this regime of monetary policy and brings different evidence to these requirements. We then examine some of industrialized and emerging economies that have been assessed to prove to what extent the inflation targeting decision contributed to a successful functioning market economy.*

KEY WORDS: *inflation targeting; monetary policy; central banks; independence; transparency; credibility*

JEL CLASSIFICATION: *E31, E52*

1. THE SHIFT TOWARDS INFLATION TARGETING

The primary role of the monetary policy is, undoubtedly, to maintain price stability, defined as a general economic state when agents no longer take into consideration a possible change in the general price level in their decision making, due to an annual rate of inflation in a low, single digits. Inflation targeting represents a strategy of monetary policy that requires the central bank to establish a target for the rate of inflation for a certain period of time and to achieve it using monetary instruments, so that price stability is obtained. In contrast to alternative strategies, like exchange rate targeting or money aggregates targeting, which use intermediate

* *Assist. Prof., Ph.D. Student, “Constantin Brancusi” University of Târgu-Jiu, Romania,*
maria_vasilescu1983@yahoo.com

Lecturer, Ph.D. Student, “Constantin Brancusi” University of Târgu-Jiu, Romania,
claudia.mungiu@gmail.com

variables to obtain a stable inflation, this strategy targets inflation directly. Both money aggregates and exchange rate targeting have been abandoned by a large number of central banks because of their limited control of the targets. Money aggregates targeting is difficult to be applied because money are hard to control due to different shifts in demand or in money multiplier that influence the money supply and the relationship between money and inflation in the long run. The exchange rate is influenced by the international demand and supply of the domestic currency. A psychological factor or a change in demand of domestic currency induced by panic or by shifts in the international environment is hardly to be limited by a central bank. Inflation targeting was firstly adopted by both industrialized countries (New Zealand, Australia, Canada, the United Kingdom) and a growing number of emerging countries (Chile, Korea or South Africa) that sought to lower the level of price volatility using different instruments of monetary policy since the early 1990s (see the table below).

Table 1. Emerging and Industrial Countries that Target Inflation

Country	Inflation Targeting Adoption Date	Inflation Rate	Inflation Target
<i>Emergent countries</i>			
Chile	1990	26.6	HIPC
Israel	1992	18.0	HIPC
Czech Republic	1998	13.1	HIPC
Poland	1999	9.9	HIPC
Brazil	1999	3.3	HIPC
Colombia	1999	9.3	HIPC
South Africa	2000	2.3	HIPC
Thailand	2000	1.7	HIPC
Korea	2001	3.2	HIPC
Mexico	2001	8.1	HIPC
Hungary	2001	10.5	HIPC
Peru	2002	-0.8	HIPC
Philippines	2002	3.8	HIPC
Slovakia	2005	3.2	HIPC
Indonesia	2005	7.8	HIPC
Romania	2005	8.8	HIPC
Turkey	2006	7.7	HIPC
<i>Developed Countries</i>			
New Zealand	1990	7.0	HIPC
Canada	1991	6.2	HIPC
United Kingdom	1992	3.6	HIPC
Sweden	1993	4.8	HIPC
Australia	1993	1.9	HIPC
Iceland	2001	3.9	HIPC
Norway	2001	3.7	HIPC

Source: International Monetary Fund

Specialists of the field sustain the idea of an entire typology of direct inflation strategy. Firstly, we can mention the complete strategies, adopted by countries where the central banks rely on a high level of credibility from the society, they take

transparent measures of monetary policy and they have their own models of prognosis that include qualitative and quantitative assessments of banks' activities. For all these countries (New Zealand, United Kingdom, the Czech Republic, Poland) the operational goal consists of the short term interest rates because they have well developed financial markets. Secondly, we meet in practice eclectic strategies in countries where the confidence in central banks is so high that price stability can be maintained without defining explicit, intermediate goals, the level of transparency and responsibility being also quite high. Thirdly, there are incomplete strategies adopted by countries that are confronting with internal and external shocks, financial instability, a high level of dollarization and of trade volatility. In these countries, both the monetary aggregates and the interest rates become operational goals for the monetary policy.

A short analysis, in the literature, regarding the best level of inflation to be achieved, reveals two opposite positions concerning this problem. Some economists such as Feldstein (1997) argue for a long-run inflation goal of zero, while others, such as Akerlof, Dickens and Perry (1996), argue that setting inflation at a too low level produces inefficiency and will determine an increase of the natural rate of unemployment. The Akerlof, Dickens and Perry argument is, however, highly controversial, and a possible stronger argument against setting the long-run inflation target at zero is that a target of zero would make deflations more likely and deflations can lead to financial instability and sharp economic contractions (Mishkin, 2001).

The use of this strategy has determined both pros and cons based on several reasons. Sustainers of inflation targeting argue that it encompasses a number of benefits compared to other strategies:

- *Inflation targeting involves a lower economic cost.* The costs of policy failure can be very large, involving massive reserve losses, high inflation, financial and banking crises. On the other hand, the costs of failing to meet the inflation target are limited to a temporarily higher inflation than targeted and a temporarily slower rate of growth, due to higher interest rates meant to bring inflation back to target.

- *Inflation targeting can improve credibility and helps creating clear inflation expectations rapidly.* A low inflation level is, undoubtedly, the primary goal of monetary policy and it requires greater transparency to compensate the operational freedom that it offers. Inflation targeting can help economic agents better understand and evaluate the performance of the central bank being easily observable and understandable than other targets.

- *Inflation targeting provides more flexibility.* The target on inflation is considered a medium-term objective because it cannot be achieved over night. This means that central banks try to control the target over a certain period, already presented to the public, accepting short term deviations without affecting its credibility.

On the other hand, critics of inflation targeting have revealed seven important disadvantages of this monetary policy strategy. Mishkin (1999) and Bernanke et al. (1999) underline four of these disadvantages: its rigidity as a strategy, it allows too much discretion, it may increase output instability and it lowers economic growth, but specialists consider them in reality not serious objections to a properly designed strategy which is best characterized as constrained discretion. The other three disadvantages are definitely very consistent. For example, in emerging market

countries inflation targeting can produce weak central bank responsibility due to its hard to control character and to existing long lags from the monetary policy instruments to the inflation outcome. Also, the fact that inflation targeting cannot prevent fiscal dominance, and that the exchange rate flexibility required by inflation targeting might cause financial instability, are relevant in this context.

2. PRECONDITIONS TO BE MET

Inflation targeting cannot function in countries that do not meet a stringent set of preconditions, reason why the framework is considered unsuitable for a large spectrum of emerging market economies. Preconditions are often considered imminent, including here a spectrum of elements such as: the technical ability of the central bank to implement inflation targeting, the absence of fiscal dominance, a developed financial market and an efficient institutional effort to support and motivate the commitment to low inflation (Batini and Laxton, 2006).

Table 2. Main Conditions for Direct Inflation Targeting Regime

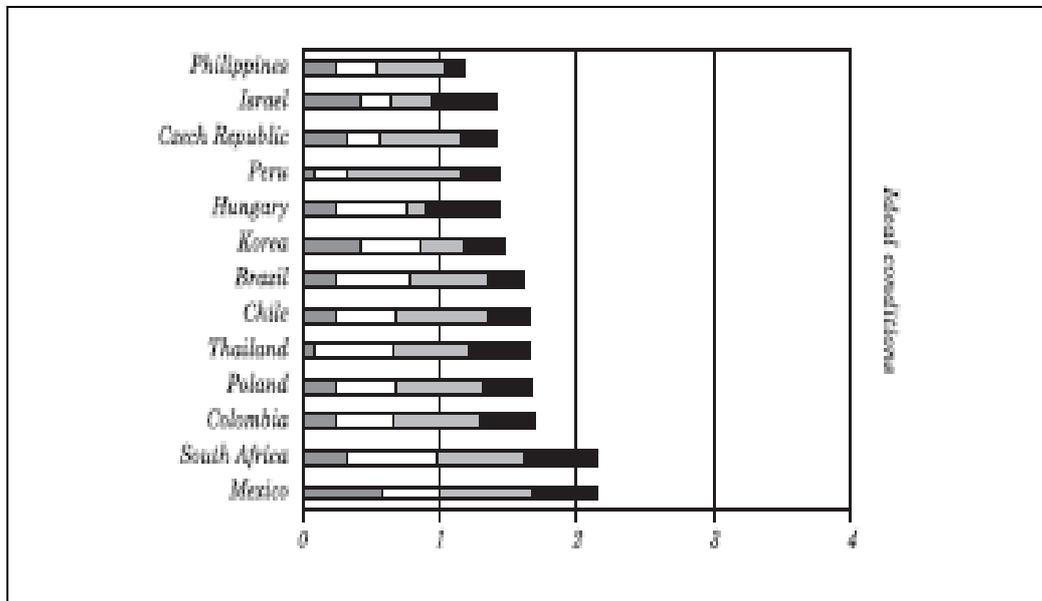
<i>Institutional Framework</i>	
Price stability option	It means that the central bank should receive a clear mandate that makes this objective fundamental for the bank activity compared to other objectives like economic growth, external competitiveness and employment.
Independence of central bank	The central bank needs to have the freedom to choose its own instruments
The harmonization of monetary policy with fiscal policy	The independence of the central bank can be constrained by a dominating fiscal policy that distorts the efficiency of monetary policy measures.
The financial system	A developed financial system reduces the effects of fiscal domination because it enlarges the Government's possibility to borrow money from the internal market and to avoid seigniorage and other forms of fiscal domination.
The exchange rate	A flexible exchange rate it is required due to the so-called "triangle of incompatibilities".
<i>Technical Framework</i>	
Target announcement	The announcement of the inflation target should be made by both Central Bank and the Government, excepting the case where the central bank has an explicit mandate for price stability as a fundamental goal.
Time horizon	One/ several years
Price Index	Consuming Price Index for the majority of developing countries and core index for developed countries
Target	The central banks do prefer an interval target given the macroeconomic uncertainty
Monetary instruments	The monetary policy uses normal instruments
Responsibility and transparency	The central bank must offer press releases regarding the monetary policy decisions and periodical reports on inflation , it must have open, active dialogues with the community and even publish prognosis models.

The technical infrastructure includes the central bank’s ability to forecast the evolution of inflation based on different models of prognosis, but, also, to hold the data needed to implement them. The fiscal dominance is quantified using many criteria, such as: money lending by the central bank to the government, the level of seigniorage incomes in the GDP (a level higher than 2% indicates a fiscal domination) or the lack of involvement of central banks during a period of economic shocks.

A healthy financial system, that is a stable banking system and a developed capital market can contribute to an effective monetary policy transmission that reduces the rate of potential shocks and increases the chance to implement healthy economic decisions. According to Sterne (2000), the choice of this type of strategy requires five important conditions: an analysis of the monetary policy history of the country, of the current level of inflation, of political and economic conditions and of the monetary strategy of similar countries.

Trying to stress the prerequisites of this monetary policy strategy, we must underline that it encompasses both technical and operational elements (see the table below) and the most important are: the public announcement of medium-term numerical targets for inflation, an institutional commitment to price stability as main goal of the central bank, the freedom of choice in setting of policy instruments, an increased transparency through communication with the public and the markets, an increased credibility of the central bank for attaining its inflation objectives.

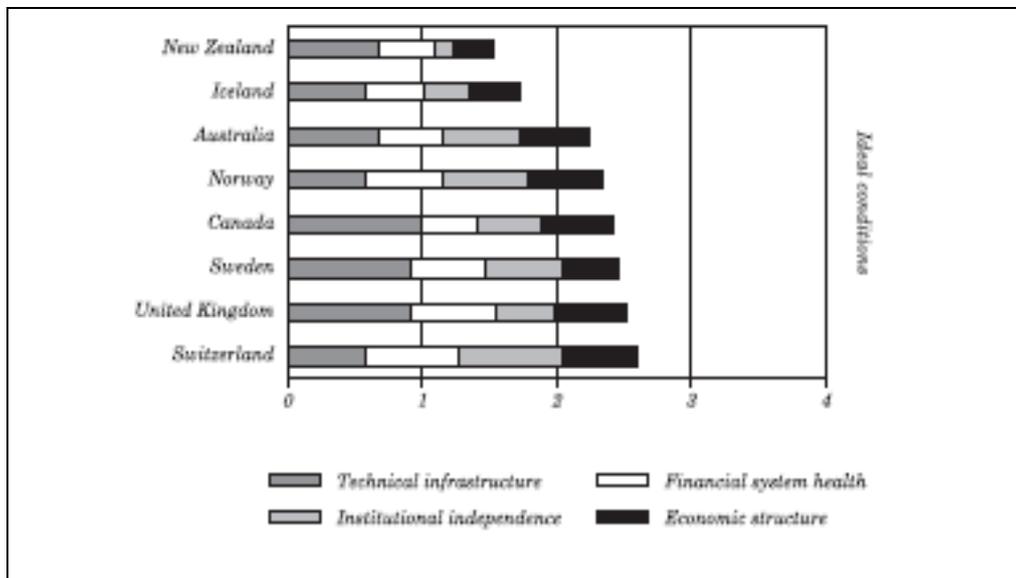
An analysis, using econometric tools, used to reveal the real level of accomplishment of initial conditions before the adoption of inflation targeting, shows that most of the targeters had poor initial condition (see the graphs below).



Source: IMF staff calculation

Note: For each of the four categories of initial conditions, 0 = poor and 1 = ideal.

Figure 1. Initial Conditions Prior to Inflation Targeting - Emerging Countries



Source: IMF staff calculation

Note: For each of the four categories of initial conditions, 0 = poor and 1 = ideal.

Figure 2. Initial Conditions Prior to Inflation Targeting - Industrial Countries

The graphs show us that none of the analyzed countries met individually all preconditions already discussed, but this should not be considered an impediment to the adoption and success of inflation targeting. The gap between emerging countries and industrial countries is insignificant, in terms of institutional, technical and economic features, which means that the strategy can bring benefits to both categories of economies and eliminates the idea that emergent markets are too fragile to successfully implement a strategy based on inflation targeting. On the other hand, we cannot extend this conclusion to all countries that may have weaker initial conditions.

3. INFLATION TARGETING: AN EVALUATION OF RESULTS

Empirical studies on inflation targeting, based primarily on industrialized countries having adopted this strategy in the early 1990s, associate it with performance improvements, though no statistical relation could be found. The lack of evidence is, partially determined by the reduced number of industrialized countries to report to, the macroeconomic environment favorable to development and the low level of inflation of the analyzed countries in the early 1990s. On the other hand, no study has proved performance has deteriorated under inflation targeting.

An comparative pre-adoption and post-adoption analysis made over the evolution of these conditions show us an improvement in terms of technical infrastructure, financial system health, institutional independence or economic structure.

Table 3. Preconditions and Current Conditions in Emerging Market and Industrial Countries (1=Current Best Practice)

	Emerging countries		Industrial countries	
	Pre-adoption	Current	Pre-adoption	Current
Technical Infrastructure	0.29	0.97	0.74	0.98
Data availability	0.63	0.92	0.84	0.94
Systematic forecast process	0.10	1.00	1.00	1.00
Models capable of conditional forecast	0.13	1.00	0.38	1.00
Financial system health	0.41	0.48	0.53	0.60
Bank regulatory capital to risk-weighted assets	0.75	1.00	0.75	1.00
Stock market capitalization to GDP	0.16	0.21	0.28	0.44
Private bond market capitalization to GDP	0.10	0.07	0.40	0.31
Currency mismatch	0.92	0.96	1.00	1.00
Maturity of bonds	0.23	0.43	0.46	0.52
Institutional independence	0.59	0.72	0.56	0.78
Fiscal obligation	0.77	1.00	0.75	1.00
Operational independence	0.81	0.96	0.63	1.00
Central bank legal mandate	0.50	0.62	0.16	0.44
Governor's job security	0.85	0.85	1.00	1.00
Fiscal balance in percent of GDP	0.48	0.47	0.45	0.78
Public debt in percent of GDP	0.47	0.47	0.53	0.54
Central bank independence	0.26	0.64	0.44	0.72
Economic structure	0.36	0.46	0.47	0.55
Exchange rate pass-through	0.23	0.44	0.31	0.50
Sensitivity to commodity prices	0.35	0.42	0.44	0.56
Extent of dollarization	0.69	0.75	1.00	1.00
Trade openness	0.18	0.21	0.13	0.16

Source: Batini, Kuttner and Laxton (2005)

The above mentioned study reveals that any of the countries taken into consideration met partially the conditions for inflation targeting adoption, but industrialized countries behaved better than emerging countries. On the other hand, a visible performance between pre and post adoption could be explained through shifts in institutional and technical structures. Also, in terms of institutional, technical, but also economic features, the gap between targeters and non-targeters is almost insignificant, which makes us consider that any of the above factors could not represent an obstacle for a successful adoption of inflation targeting.

All differences perceived between the two groups of countries rely on five fundamental institutional differences for emerging market countries (Mishkin, 2004) that must be taken into consideration into monetary policy projections: weak fiscal institutions, weak financial institutions including government prudential regulation and supervision, low credibility of monetary institutions, dollarization, and vulnerability to sudden stops of capital inflows. Definitely, advanced countries are not immune to

problems with their fiscal, financial and monetary institutions, but there is a major difference because weak fiscal, financial and monetary institutions make emerging market countries very vulnerable to high inflation and currency crises, so that the real value of money cannot be taken for granted.

In conclusion, we dare to say that the feasibility and success of inflation targeting is rather dependent on the authorities' commitment and ability to plan and drive institutional change after introducing inflation targeting, so that central banks should focus on the operational and technical goals in order to maximize all potential benefits.

REFERENCES:

- [1]. Akerlof, G.; Dickens, W.; Perry, G. (1996) *The Macroeconomics of Low Inflation*, Brookings Papers on Economic Activity 1, pp.1-59
- [2]. Ball, L.; Sheridan, N. (2004) *Does Inflation Targeting Matter?*, DNB Staff Reports
- [3]. Batini, N.; Kuttner, K.; Laxton, D. (2005) *Does Inflation Targeting Work in Emerging Markets?*, World Economic Outlook, September, pp. 161–186
- [4]. Batini, N.; Laxton, D. (2006) *Under What Conditions Can Inflation Targeting Be Adopted? The Experience of Emerging Markets*, Central Bank of Chile Working Papers no. 406, December, [Online], Available at <http://www.bcentral.cl/eng/stdpub/studies/workingpaper>
- [5]. Feldstein, M. (1997) *Capital Income Taxes and the Benefits of Price Stability*, NBER Working Paper No. 6200, September
- [6]. Mishkin, F.S. (2004) *Can Inflation Targeting Work in Emerging Market Countries?*, IMF Working Papers, [Online], Available at <http://www.imf.org/external/np/res/seminars/2004/calvo/pdf/mishki.pdf>
- [7]. Sterne, G.; Mahadeva L. (2000) *Key issues in the choice of monetary policy framework in Monetary Policy Frameworks in a Global Context*, Bank of England
- [8]. Walsh, C.E., *Teaching Inflation Targeting: An Analysis for Intermediate Macro* in Journal of Economic Education

FINANCIAL SOUNDNESS INDICATORS

DANIELA ZAPODEANU, MIHAIL-IOAN COCIUBA *

ABSTRACT: *Following the financial-economic crisis the financial systems worldwide have been subjected to enormous pressure, which called into question the need for financial system stability in general and in particular the one of the banking system. We overview the most important indicators in financial stability and we analyze the evolution of the main indicators of financial health for the Romanian banking system as a whole and for two banks, respectively BRD and Transylvania Bank . We find that banks with foreign shareholders tend to be more riskier than domestic banks, also an important role in banks stability is the presence of an institutional investor.*

KEYWORDS: *economic crises; economic stability; financial stability; financial soundness indicators; banking system*

JEL CLASIFICATION: *G01, G21*

1. FINANCIAL STABILITY. FUNDAMENTAL NOTIONS.

Financial stability can be a difficult concept to explain, because there is no widely accepted definition [Oosterloo and De Hann, 2003], for some authors financial stability is defined in relation to what financial stability is not: "...we define financial stability as the absence of instability ... the situation in which economic performance is not undermined (weak) by the price fluctuations of financial assets or because financial institutions are unable to meet contractual obligations ... [Crockett, 1997] or "... financial instability refers to situations (conditions) in which financial markets affect or threaten to affect economic performance ..." [Chant, 2003]. We believe that a proper definition of financial stability is not about what isn't (in this case financial instability) but rather what is financial stability, as "... We have financial stability where there is: a) monetary stability, b) the level of employment is close to the natural level of the economy, c) there is confidence in financial institutions and the functioning of financial

* *Assoc. Prof., Ph.D., University of Oradea, Romania, danzapodeanu@yahoo.com
Ph.D. Student, University of Oradea, Romania, cociuba@gmail.com*

markets in the economy, d) there aren't relative motion of asset prices, real or financial in the economy that would undermine a) or b).

Viewed from a positive perspective we define the term by following the definition given by Schinas [Schinas and others, 2004], "... (the financial stability is that situation) in which the financial system is capable to: (a) allocate resources efficiently between its activities and over time, (2) assess and manage financial risk, and (3) to absorb shocks. A stable financial system is then one that improves the economic performance and accumulation of wealth (taking into account the first two parts), while it is also possible to prevent effects caused by the impact of disruptive disorders (third appearance)."

The National Bank defines financial stability [Financial Stability Report, 2006] "... a financial system, regardless of size or complexity, is stable when it has the capacity to facilitate economic performance and to correct any imbalances that may occur as a result of adverse shocks" (this is also the definition of financial stability given by the IMF). Another definition [Cerna et al., 2008] is: "Financial stability means the characteristic of the financial system, which has the ability to absorb financial imbalances that may arise as a result of endogenous or exogenous events, of relevant size and unanticipated, also accomplishing the specific performance".

We will retain the definition of financial stability given by the European Central Bank: "... (it is) difficult to define, the concept of financial stability should be seen not only in terms of avoiding financial crises. Financial stability, also has a positive dimension. Is the situation where the financial system is able to perform well all its normal tasks and it is expected to do that also in the near future. From this viewpoint, financial system stability requires that the main components of the system – financial institutions, markets and infrastructure - to be able together to absorb the side effects. It requires that the financial system to achieve efficiency in reallocation of financial resources from savers to investors, that financial risk is assessed and measured properly and that risks are managed effectively. Financial stability has also an important prospective dimension: inefficiencies in the allocation of capital or shortcomings in risk assessment may, by laying the foundations for vulnerabilities, compromise the future of financial stability and therefore the economic stability. Three steps are necessary to produce a comprehensive view of financial system stability. The first involves the formation of an individual assessment and then the sound of collective institutions, markets and infrastructure that make up the financial system. The second involves identifying the main sources of risk and vulnerability that could pose challenges for the future stability of the financial system. The third and last step is an assessment of the financial system's capacity to cope with the crisis, whether these risks are materialized."

It can be noticed that having provided positive definitions for the concept of financial stability means to actually understand what is financial stability: the natural and normal state of functioning of the financial markets, which are able to resist endogenous and exogenous shocks, financial stability is the normal condition of the economy and financial instability is the exception to this condition. Until recently financial stability hasn't been in the focus of national and supranational institutions, but due to the mutations occurring in the global economy (especially the phenomenon

of globalization of markets) led to an increased risk in the international spread of crises which led to the desire to minimize the risks of contagion and to increase the strength of the international financial system. An important question which may be raised is related to the natural state of the financial system, is it one of stability or instability? We believe that the economic system in general and especially the financial one are in a natural state of stability, reliability; what is sought by national and international bodies is a preventive treatment to prevent any slippage or if the slippage appear to be short and with as few adverse effects (eg. inflation, unemployment, economic decline, etc..) to the economy and society.

The Financial Stability Board which is the continuer of the Financial Stability Forum was established in 1999 by ministers and central bank governors of the G7, aimed at creating new structures to increase cooperation between national and international supervisors on the one hand and financial international institutions for enhancing the level of stability in the financial international system. FSB seeks to: analysis the vulnerabilities affecting the financial system, identifying and promoting measures to reduce them; promote coordination and exchange of information between authorities responsible for maintaining financial stability; monitoring and advising the development of markets and their implications for policy adjustment; counseling and monitoring to implement the best practices in achieving the standards of regulation; implementation of joint actions, creating international bodies able to respond in a timely, coordinated, focused on overcoming obstacles; setting guidelines for development of supervisory institutions; to manage cross-border crisis management plans, especially on systemically important firms; to cooperate with the IMF to carry out simulations on early warning systems.

Many of the recommendations issued by the FSF have been implemented in our country under the supervision of the NBR, in 2006 was signed "The Protocol for cooperation to promote stability in the overall financial system and his components " signed by the following authorities of regulation and supervision: NBR, NSC, CSA CSPP. Since July 31, 2007 The National Board for Stability was established with the duties "to promote continuous and effective exchange of information between authorities responsible for regulation and supervision of different sectors of the financial system and the Minister of Finance and the preventions of financial crises in financial institutions, financial groups and financial markets". As an EU member, Romania takes part in agreements existing in the European Union, as from 1 August 2007 NBR signed the declaration of accession to the Agreement on basic principles for cooperation in crisis management (signed by EU countries in 2003) and the Agreement on Cooperation between the authorities responsible for monitoring the payment systems and banking supervisors (signed by EU countries in 2001). From June 1, 2008 enter into force the Agreement on Cooperation between financial supervisory authorities, central banks and finance ministries of EU cross-border financial stability. This agreement replaced the agreement of cooperation between banking supervisors, central banks and finance ministries of EU countries in financial crisis, which was signed in 2005. The new agreement includes: common principles for cross-border financial crisis management, a common analytical framework for assessing the systemic implications of potential crises, to ensure common terminology applicable to

cross-border financial crisis by all relevant authorities and the prerequisites for making timely assessments are necessary to facilitate the adoption of decisions in crisis situations, a practical guide for crisis management, reflecting a common understanding of the steps and procedures for crisis management. Romanian National Bank issues annually since 2006 "The report on financial stability", the document that aims at following: Economic and international finance. Economic and financial situation internationally is one of the exogenous factors that may threaten local financial stability through diverse factors; Financial market and its risks; Financial market infrastructure; Financial market institutions.

The last three are endogenous factors of financial stability, tracking all these elements is necessary because a skidding to a certain level of any item mentioned may threaten stability in the financial and banking system. The key indicators for analyzing financial stability are [Cerna et al, 2008]: The Financial soundness indicator; Stress testing, which represents testing the response of the financial system to speculative pressure factors; Early warning systems; Other methods of analysis and assessment of financial stability.

In this paper we analyze the set of financial soundness indicators proposed by the IMF on the local banking system and the banks: Bank of Romania and Banca Transilvania.

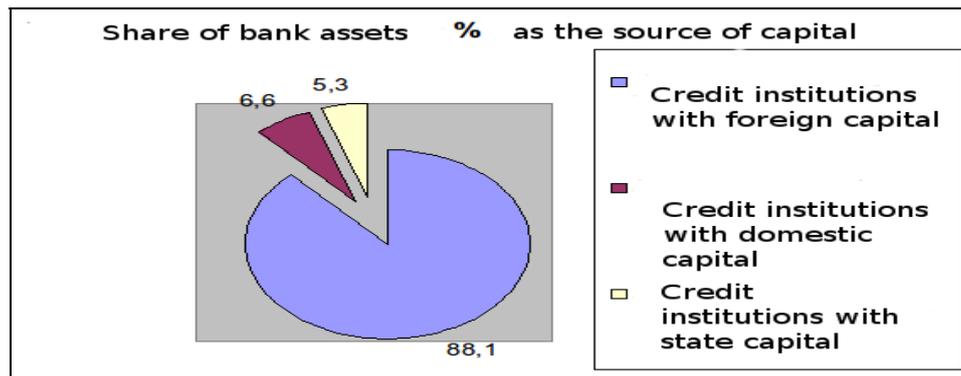
2. LOCAL ECONOMIC SITUATION AND THE FINANCIAL SOUNDNESS INDICATORS

Unlike developed countries which were affected by the crisis since the end of 2007 our country began to feel the first effects of the crisis only in september-october of 2008. If in Romania the crisis began thorough an unfold in credit loss rate, because almost 90% of banking assets are held by banks with foreign capital and branches of foreign banks the crisis started to feel from the fall of 2008 when foreign European banks began to suffer from lack of market confidence. After that followed a period of devaluation of the RON and the lowering of imports, exports and even trade deficit, trade deficit remained at low levels compared to previous periods because of strong contractions that existed at the level of domestic demand , an encouraging sign is the higher pace in which exports have recovered this is what makes the current account deficit to be reduced to levels consist of a single figure. Foreign exchange market was among the first to have been affected by financial crisis, many foreign investors on the national currency, Ron, considering it overvalued. The exchange rate risen sharply which affected the ability of many borrowers who had debt denominated in foreign currencies, the central bank intervened actively, since 2008, seeking to maintain a stable course of the exchange rate. After signing the IMF contract, the loan obtained was clearly stipulated that a part of it will just be used by the central bank to maintain the stability of RON. The level of imports and exports continued to decline during 2009, with a return in early 2010 however, growth forecast 2010 was amended to decrease up to 1-2% of GDP. Given the difficult international climate, and the needs for short-term borrowing, the Romanian government has managed to conclude a financing agreement for 20 billion euros. The perception on the international markets

of our country's has improved as a result of signing the Agreement with the IMF, but remains one of the highest in the Central and Southeast region of Europe, this because of factors related to the central government's budgetary policy.

Another risk factor in the banking and financial stability is the component of the Romanian banking system, an banking system dominated by mostly private and foreign capital. In Romania, Romanian banking system is dominated in an proportion of 88.1% by foreign capital (to the share of bank assets), an proportion of 6.6% by credit institutions with a Romanian majority private capital and 5.3% by credit institution own by the state.

From an total of 42 credit institutions only BT, Cheque Bank, Eximbank Bank Carpathian and Libra Bank have domestic capital. Which raised various issues relating to the return of capital to foreign banks, the cuts in credit lines from the parent bank and the risks faced by Romanian subsidiaries if the parent bank collapse. Due to the huge exposure to which Austrian, Greek, Iberian, Dutch banks had on emerging markets, they have gone through periods in which the appeal to loans from the countries where they were based, which had put additional pressure on subsidiaries and led to cessation of credit lines from parent banks.



Source: www.bnro.ro, 2009, own calculations

Figure 1. The share of bank assets according to source capital

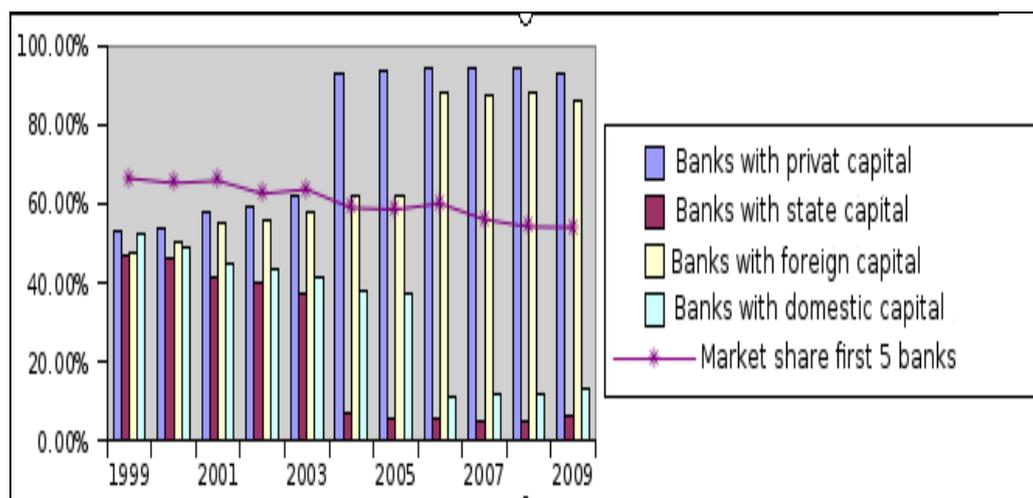
The financial crisis has turned into an economic crisis affecting the GDP of emerging countries from EU, the falls in GDP mainly affected the Baltic states (the levels of contraction being 10-20% of GDP), the IMF forecasts for coming years show an improvement, resumption of economic growth and continuing the convergence of the new EU members. IMF played a key role in stabilizing this region, almost all countries signing agreements obtaining the financial resources necessary to finance budget deficits, the IMF plays at global and local level the role of an international creditor and also a stabilization role.

To analyze the financial stability within the national banking system we will analyze some of the indicators proposed by the IMF, namely the Financial soundness Indicators. NBR presents the financial soundness indicators annually in the Financial Stability Report (Table 1), we can note that in 2008-2009 period the main indicators of financial health of the Romanian banking system have getting worse, the biggest

depression is observed at the level of overdue loans . Because before the financial crisis the most banks had a policy of massive lending to increase market share, banks are now affected by the financial crisis. Note that especially foreign ownership of banks, which wanted a rapid increase in assets and market share now face the biggest problems. The examined banks cover over 40% of the entire banking system, while the first five banks account for over half of total banking assets.

Table 1. Indicators of credit institutions

		U.M.	12/07	03/08	06/08	09/08	12/08	03/09	06/09
1	No. of credit institutions	no.	42	42	41	42	43	43	43
2	branches of foreign banks	no.	10	10	9	9	10	11	11
3	Assets	Mil.lei	251425.8	264448.3	279812.8	297200.4	314441.5	332342.3	328891.8
4	Private owned assets/ total assets	%	94.6	94.6	94.6	94.7	94.8	93.7	93.2
5	Foreign owned assets/ total assets	%	87.7	87.6	87.7	87.9	88.2	86.6	85.9
6	Solvency ratio > 8%	%	13.78	12.99	12.78	11.85	13.76	13.16	13.51
7	Leverage effect	%	7.32	7.2	7.3	7.1	8.13	6.81	6.92
8	Overdue and doubtful loans/total loans	%	0.22	0.21	0.3	0.24	0.32	0.66	1.03
9	Overdue and doubtful loans/total assets	%	0.17	0.19	0.25	0.22	0.29	0.52	0.75
10	ROA	%	-	1.51	1.44	1.77	1.56	-0.25	0.05
11	ROE	%	-	16.45	15.82	19.41	17.04	-2.9	0.64



Source: www.bnro.ro, 2009, own calculations

Figure 2. Share of balance sheet assets according to the source and structure of capital

Table 2. Financial soundness indicators

Core set	
Deposit-taking institutions	
Capital adequacy	Regulatory capital to risk-weighted assets
	Regulatory Tier I capital to risk-weighted assets
Asset quality	Nonperforming loans to total gross loans
	Nonperforming loans net of provisions to capital
	Sectoral distribution of loans to total loans
Earnings and profitability	Return on assets
	Return on equity
	Interest margin to gross income
	Noninterest expenses to gross income
Liquidity	Liquid assets to total assets (liquid asset ratio)
	Liquid assets to short-term liabilities
Sensitivity to market risk	Net open position in foreign exchange to capital
Encouraged Set	
Deposit-taking institutions	Capital to assets
	Large exposures to capital
	Geographical distribution of loans to total loans
	Gross asset positions in financial derivatives to capital
	Trading income to total income
	Personnel expenses to noninterest expenses
	Spread between reference lending and deposit rates
	Spread between highest and lowest interbank rate
	Customer deposits to total (non-interbank) loans
	Foreign currency-denominated loans to total loans
	Foreign currency-denominated liabilities to total liabilities
	Net open position in equities to capital
Other financial corporations	Assets to total financial system assets
	Assets to GDP
Nonfinancial corporate sector	Total debt to equity
	Return on equity
	Net foreign exchange exposures to equity
	Number of applications for protection from creditors
Households	Household debt to GDP
	Household debt service and principal payments to income
Market liquidity	Average bid-ask spread in the securities market
	Average daily turnover ratio in the securities market
Real estate markets	Real estate prices
	Residential real estate loans to total loans
	Commercial real estate loans to total loans

Table 2. Financial soundness indicators: BRD, Banca Transilvania

Milioane RON	BRD	TLV
Assets	46346	19472
Loans	33249	10871.5
Market share %	14.10%	5.90%
Solvability	12.73	14
Overdue loans/Loans	2,64%	4,8%
ROE	19.50%	27,5%
Loans/bank deposit	113.00%	81.00%
Profit	779	610

Source: www.brd.ro, www.bancatransilvania.ro, 2009, own calculations

It is very important to analyze the main indicators of these major banks, and in case of slippages need a quick response from regulatory authorities, namely the NBR. Financial stability and banking sector stability, in particular, the sector which is one of the most vulnerable sectors in crisis, it is particularly important for the economic situation in a country. We presented from, the perspective of financial stability, the most important indicators of financial soundness, from the analysis we concluded that the Romanian banking system is stable, but there were some slippages, particularly in the loans outstanding. The most important causes affecting the volume of bad loans related to the fact that most loans were granted in foreign currency and because of the aggressive behavior of banks during the pre-crisis period, by increasing crediting levels at any price regardless of risk associated. Bank stability depends on the number of factors, most important are: ownership structure, market share growth rate of lending in previous periods, financing and refinancing ability of foreign markets / local or through international institutions.

REFERENCES:

- [1]. **Chant, J.** (2003) *Financial Stability as a Policy Goal*, in Essays on Financial Stability, Technical Report No. 95, Bank of Canada, September
- [2]. **Crockett, A.** (1997) *Why is Financial Stability a Goal of Public Policy?*, in Maintaining Financial Stability in a Global Economy, Symposium Proceedings, Federal Reserve Bank of Kansas City, August, pp. 55-96
- [3]. **Cerna, S. et all.** (2008) *Financial Stability*, Editura Universitatii de Vest
- [4]. **De Haan, J.; Oosterloo, S.** (2003) *Transparency and accountability of central banks in their role of financial stability supervisor in OECD countries 2003*, <http://www.springerlink.com/content/e275k711krhw2244/>
- [5]. **Schinasi, G.** (2004) *Defining Financial Stability*, IMF Working Paper No. WP/04/187, October
- [6]. **BNR** (2009) *Buletin lunar*, iulie, www.bnro.ro
- [7]. **BNR** (2006) Financial Stability Report, <http://www.bnro.ro>
- [8]. **International Monetary Fund** (2009) *The Financial stability report*, www.imf.org
- [9]. *World Economic Outlook Database*, October 2009, www.imf.org
- [10]. *Financial Soundness Indicators (FSIs) and the IMF*, <http://www.imf.org/external/np/sta/fsi/eng/fsi.htm>
- [11]. *Global Financial Stability Report: Navigating the Financial Challenges Ahead* (Washington, October), p.35, www.imf.org
- [12]. <http://www.bnro.ro/Comitetul-National-pentru-Stabilitate-Financiara-3321.aspx>, [Accessed 30 June 2010]
- [13]. <http://www.financialstabilityboard.org/about/mandate.htm>, [Accessed 30 June 2010]
- [14]. www.bancatransilvania.ro, [Accessed 30 June 2010]
- [15]. www.brd.ro, [Accessed 30 June 2010]

SUSTAINABLE DEVELOPMENT IN THE EUROPEAN UNION: TOOLS FOR POLICY EVALUATION

JADWIGA ZIOLKOWSKA, BOZYDAR ZIOLKOWSKI *

ABSTRACT: *The most reliable way to support sustainable development is given by creation and implementation of a political strategy. The European Union (EU) has many successful experiences in this field. However, the periodical monitoring reports indicate several important challenges to be met by the EU policy in future. Currently, the EU sustainable development strategy is in progress of being updated and adjusted to new economic, ecological, and social challenges. In this paper, the previous and current achievements in the field of sustainable development policy are analyzed. Further, based on the defined challenges, some recommendations for the future are formulated. The presented investigation shows the necessity of reconsidering some political instruments and practices realized in the past.*

KEYWORDS: *sustainable development; sustainable development strategy; European Union; policy evaluation approaches; indicators*

JEL CLASSIFICATION: *Q01, Q51*

1. INTRODUCTION

The current policy patterns and measures in all countries of the European Union (EU) are focused on sustainable development (SD). In the global economy, the traditional idea of sustainable development is associated with environmental protection and meeting social needs as well as economic objectives. The importance of sustainable development was initially underlined by U Thant, the Secretary-General of the United Nations in 1961-1971 (U Thant Institute, 2010). In 1992, at the Rio de Janeiro Earth Summit, direct actions have been approved to strengthen global sustainable development. The definition of sustainable development, formulated for the first time in the report "Our Common Future" by the Brundtland Commission (also called: the World Commission on Environment and Development), conveyed the idea

* *Assist. Prof., Ph.D., Humboldt University of Berlin, Germany, jadwiga.ziolkowska@agrar.hu-berlin.de*

Assist. Prof., Ph.D., Rzeszów University of Technology, Poland, bozydarz@prz.edu.pl

of a policy that “seeks to meet the needs and aspirations of the present generation without compromising the ability to meet those of the future generations” (United Nations, 1987). In this paper, we analyze the progress of sustainable development and different policy instruments in the European Union. Further, we undertake an attempt of a descriptive evaluation and formulate challenges and recommendations for the future.

2. EVALUATION TOOLS FOR SUSTAINABLE DEVELOPMENT IN THE EUROPEAN UNION

The policy for sustainable development implemented nowadays in the EU Member States needs a constant stimulus. Due to its complex character, policy implementation is a long-term process that requires coordination and cooperation of different stakeholders as well as political decision-makers on regional, national and international level. Apart from the broad support for sustainable development, some authors argue that sustainable development is a direction in which we ought to move faster than we are doing nowadays (Kjaerheim, 2005, pp.329-339).

In the context of the current discussions on sustainable development, a question arises about the evaluation instruments of the current policies, which is relevant for the future policy design and implementation. Several measures are available in the EU methodology for assessing and evaluating the progress of sustainable development, while mostly acknowledged are indicators for sustainable development. In the European Union, similarly as in many other countries in the world, the applied set of indicators is supplemented continuously. The modifications and adjustments can be explained with the necessity of updating methodologies and the available data sets. Therefore, the indicators recommended and implemented in different countries can vary considerably, also due to different regional economic, ecological, and social conditions that create a basis for policy-making and evaluation.

In the European Union, the background for the development of sustainable indicators has been created by the EU Sustainable Development Strategy (SDS) adopted by the European Council in Göteborg in 2001 (European Council, 2001). This strategy was complemented in 2002 by the European Council in Barcelona and included the outcomes of the World Summit on Sustainable Development (WSSD) in Johannesburg (2002) (Council of the European Union, 2006, p.2). According to the WSSD recommendations, education has a great potential to play a major role in future to realize a “vision of sustainability that links economic well-being with respect for cultural diversity, the Earth and its resources” (UNESCO, 2007, p.6).

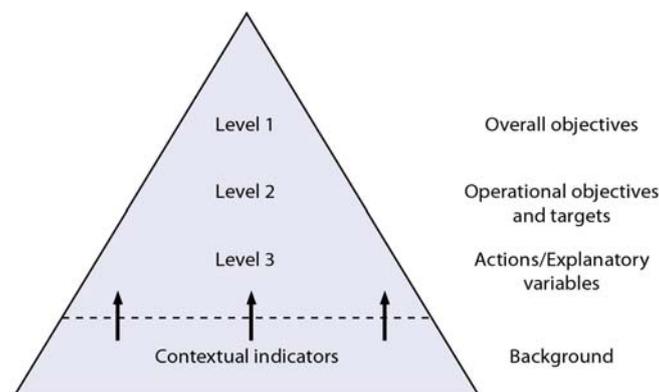
The Sustainable Development Strategy primarily addresses following issues: quality of life, intra- and inter-generational equity and coherence between all policy areas, including external aspects. The strategy underlines the role of economic development as a starting point for facilitating the transition from the current to a more sustainable society. The EU Sustainable Development Strategy also recognizes that investments in human, social, and environmental capital as well as technological innovations are the prerequisites for long-term competitiveness and economic

prosperity, social cohesion, quality employment, and effective environmental protection (Council of the European Union, 2006, p.6).

Based on the 2001 Sustainable Development Strategy, a first indicator set was adopted by the European Commission in 2005 and amended in 2007. Sustainable development indicators are used to monitor the EU Sustainable Development Strategy that is evaluated by Eurostat every two years. According to the SDS, the indicators have to monitor the stage of progress with regard to each particular challenge in the field of sustainable development (Eurostat, 2009).

Referring to the SDS, the sustainable development indicator (SDI) framework has been created. The framework is based on ten themes reflecting seven key challenges of the strategy as well as the key objective of economic prosperity and guiding principles related to “good governance practice”. The themes reflect a general pattern of economic, social, environmental, and institutional dimensions. The framework consists of three main levels: 1) Overall objectives, 2) Operational objectives and targets, and 3) Actions/operational variables of the Sustainable Development Strategy. The three levels are complemented with contextual indicators which provide valuable background information, though, they do not monitor directly the strategy objectives (Eurostat, 2009).

Several instruments have been designed within the framework of SDI to be used by the European Commission for monitoring, implementation assessment, and follow-up evaluation. According to the Sustainable Development Strategy, the European Commission is obliged to prepare a progress report on implementation of the Strategy in the EU Member States every two years (starting in September 2007). It should also indicate future priorities, orientations, and actions (Council of the European Union, 2006, p.26). The structure of priorities, orientations and actions of the current EU sustainable development policy is presented in figure 1.



Source: *European Communities (2009, p.35)*

Figure 1. Three-level pyramid of sustainable development indicators

In 2009, the general structure of the pyramid of sustainable development indicators comprised following indicators:

- 1st level – 11 headline indicators,

- 2nd and 3rd level – 26 sub-themes (operational objectives) and 117 actions of the sustainable development,
- Background level – 9 contextual indicators (Eurostat, 2009).

Headline (or level-1) indicators at the top of the pyramid are supposed to monitor the ‘overall objectives’ related to the seven key challenges of the EU SDS:

- 1) Climate change and clean energy,
- 2) Sustainable transport,
- 3) Sustainable consumption and production,
- 4) Conservation and management of natural resources,
- 5) Public health,
- 6) Social inclusion, demography and migration,
- 7) Global poverty and sustainable development challenges (European Communities, 2009, p.30).

Generally, the headline indicators are widely implemented and provide high communicative and educational value. They are said to be robust and available for most EU Member States, generally for a period of at least five years.

The second level of the pyramid consists of indicators related to the ‘operational objectives’ of the strategy. They are leading indicators in their respective sub-themes. They also are proved to be robust and available for most EU Member States for a period of at least three years.

The third pyramid level consists of indicators related to actions described in the Strategy or to other issues which are useful for analyzing progress towards the strategy objectives. Breakdowns of higher level indicators, e.g., by gender or income group, can usually be found at level 3.

Contextual indicators are a part of the SDI set, but they neither monitor directly a particular SDS objective, nor are they policy responsive. Generally, they are difficult to interpret in a normative way. However, they provide valuable background information on relevant issues for sustainable development policies and are useful for policy evaluation (European Communities, 2009, p.8, 34).

3. METHODOLOGY AND DATA

In 2009, the Eurostat (2009) methodology for assessment of the SDI framework consisted of the following headline indicators:

1. Growth rate of real GDP per capita (key SDS objective: economic prosperity),
2. Resource Productivity (key SDS challenges: sustainable consumption and production; conservation and management of natural resources),
3. At-risk-of-poverty rate, by gender (key challenge: social inclusion, demography and migration),
4. Employment rate of older workers (key challenge: social inclusion, demography and migration),
5. Healthy life years and life expectancy at birth, by gender (key challenge: public health),
6. Greenhouse gas emissions (key challenge: climate change and clean energy),

7. Share of renewables in gross inland energy consumption (key challenge: climate change and clean energy),
8. Energy consumption by transport mode (key challenge: sustainable transport),
9. Common bird index (key challenge: conservation and management of natural resources),
10. Fish catches taken from stocks outside safe biological limits (key challenge: conservation and management of natural resources),
11. Official Development Assistance as share of gross national income (key challenge: reduction of global poverty and sustainable development).

The main ten themes in the structural division of the Sustainable Development Strategy are presented in table 1. Referring to table 1, the meaning of the respective indicators is provided as follows. 'Socio-economic development' indicators are linked to health and life expectancy and it shows inequalities in the access to health care in different income groups. The reduction of health inequalities within and among the respective EU Member States is one of the main objectives of the Sustainable Development Strategy (European Communities, 2009, p.182).

Table 1. The structure of sustainable development indicators among themes

No	Theme	Headline indicators	Sub-themes	Actions
1	Socio-economic development	1	3	24
2	Sustainable consumption and production	1	3	16
3	Social inclusion	1	3	16
4	Demographic changes	1	3	7
5	Public health	1	2	11
6	Climate change and energy	2	2	10
7	Sustainable transport	1	2	9
8	Natural resources	2	4	8
9	Global partnership	1	3	10
10	Good governance	0	3	6
	Sum	11	28	117

Source: Own calculation based on Eurostat (2009).

The indicators 'sustainable consumption and production' have the aim to monitor the EU policy progress towards the SDS objectives and targets related to promoting sustainable consumption and production patterns under the 'sustainable consumption and production' key challenge, and improving resource efficiency and avoiding the generation of waste under the 'conservation and management of natural resources' key challenge.

'Social inclusion, demography and migration' indicators monitor progress towards the objectives and targets related to social inclusion in the EU SDS key challenge. The headline indicator of this theme, 'at-risk-of-poverty rate by gender', measures the risk of poverty relative to a threshold of 60% of the national median income (European Communities, 2009, p.282-283).

'Demographic changes' indicators are linked to the economic indicators introduced in the European Employment Strategy – 'social inclusion indicators' approved by the Laeken European Council in 2001, as well as 'social protection indicators' included in the New Monitoring Framework 2008 (European Communities, 2009, p.284). The headline indicator in the frame of 'Public health' indicators is 'healthy life years at birth', by gender, compared to 'life expectancy'. While 'life expectancy' is a robust and established indicator, reflecting health care in general, 'healthy life years' indicator is rather related to the quality of life (European Communities, 2009, p.285).

Two headline indicators have been chosen to represent 'Climate change and energy' indicator: 'Greenhouse gas emissions' and 'Share of renewables in gross inland energy consumption' (European Communities, 2009, p.286).

Within the 'Sustainable transport' indicator, the headline indicator 'energy consumption by transport mode' have been chosen to compare the energy consumption of transport with GDP growth and thus to assess the degree of decoupling (European Communities, 2009, p.286).

'Natural resources' indicators monitor progress towards the objectives and targets related to biodiversity, ecosystems and renewable natural resources in the EU SDS key challenge of conservation and management of natural resources. Also, issues related to non-renewable resource use and wastes are addressed. Two headline indicators represent this theme: 1).

'Common bird index' provides information on the abundance and diversity of a selection of common European bird species and the subset of farmland birds. This indicator will be extended by forest bird species in the future policy framework; 2) 'Fish catches outside safe biological limits' monitoring pressure on fish populations resulting from over-fishing (European Communities, 2009, p.287).

'Global partnership' indicator aims at monitoring progress towards the objectives and targets related to global poverty and sustainable development in the EU SDS. The indicator is related to international EU commitments with third countries, which have been proved particularly at the UN Millennium Summit in 2000 and the World Summit on Sustainable Development in Johannesburg in 2002. The headline indicator 'Official development assistance (ODA)' monitors the degree to which the EU has fulfilled its development assistance commitments. Although ODA and private investment are not synonyms for sustainable development, the indicators show the amount of financial resources that can potentially be used for global sustainable development, targeting in particular developing countries (European Communities, 2009, p.288).

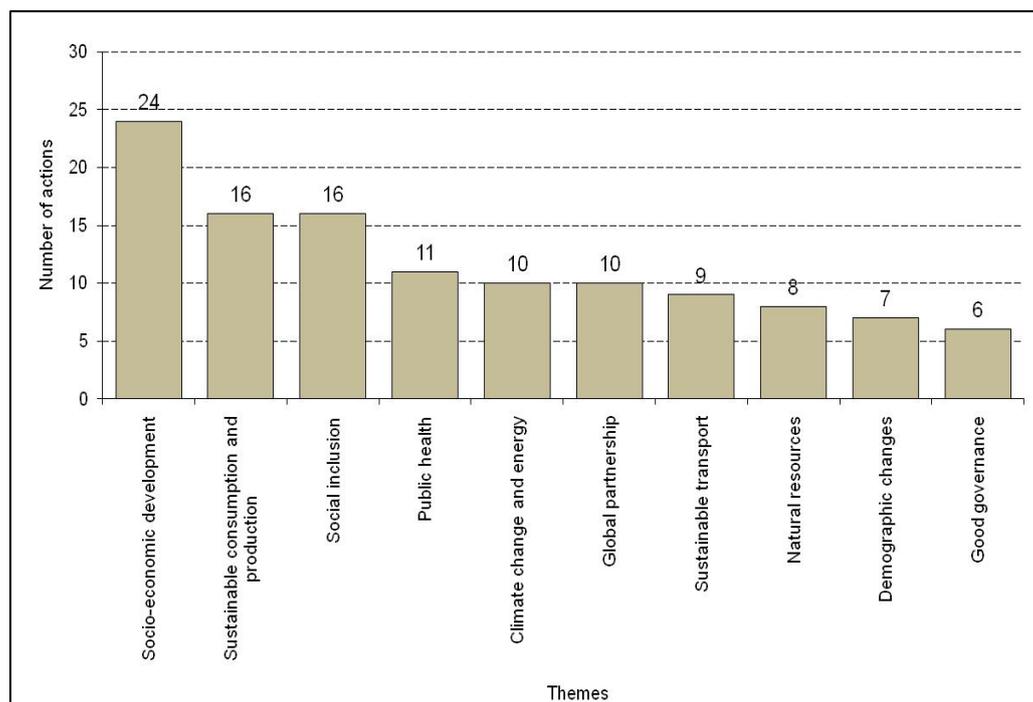
'Good governance' indicators monitor progress towards the objectives and targets related to good governance provisions described both in the Sustainable Development Strategy and in the White Paper on European Governance. No headline indicators have been defined for this theme, as none was judged either robust or policy-relevant at the same time and, thus they are not suitable to provide a comprehensive overview of the good governance concept. The indicator on the level of citizens' confidence in the EU institutions was presented as a headline indicator in the 2005

Monitoring Report; however, it has been used as a contextual indicator since 2007 (European Communities, 2009, p.289).

Based on Eurostat statistical data for the presented indicators, we provide an analytical discussion on the focus of the European policies with regard to sustainable development. The presented headline indicators are distributed among ten themes unequally. Based on the Eurostat methodology, we estimate the headline indicators, sub-themes indicators and action indicators in order to assess the structure of instruments in the Sustainable Development Strategy. Thus, we identify the importance of themes, assuming that the greater number of actions within each analyzed theme represent higher importance of this field. This proceeding resulted from the presumption that most important themes gain larger attention and interest of a policy and vice versa.

4. RESULTS AND DISCUSSION

When estimating the importance of the sustainable development indicators framework, we evaluate the number of existing indicators for SD actions (presented in the 4th column of table 1) as a measure for assessing the priority field, and thus significance of the respective fields in the EU policies with regard to sustainable development. The results of the investigation show the significance level of the respective indicators in the SDI framework (figure 2).



Source: Own calculation based on Eurostat (2009)

Figure 2. Ranking of significance of sustainable development indicators in EU policy

The results of the analysis provide the insight into the current EU priorities in terms of sustainable development policy. They show the highest policy interest for 'Socio-economic development', 'Sustainable consumption and production', and 'Social inclusion', which are represented with 24, 16, and 16 different actions, respectively, realized under the themes.

The themes 'Public health', 'Climate change and energy', 'Global partnership', 'Sustainable transport', and 'Natural resources' are represented on a middle importance level under the themes, while 'Demographic changes' and 'Good governance' on a low importance level with 7 and 6 actions, respectively. Also, 'Socio-economic development' theme is four times more important than 'Good governance'. This imbalanced distribution creates a new field for scientific analysis in regard to a more efficient capital allocation in the framework of the future policy.

The results of this investigation suggest that more support should be provided to sustainable development than it is suggested by other researches in the EU Sustainable Development Strategy. In order to emphasize this necessity, we compare the current EU sustainable development policy and its evaluation by the EU with the results of our investigation.

The current progress of the EU sustainable development policy is presented in table 2. According to this report, similarly as in our analysis, the fields 'Good governance' 'Natural resources' and 'Global partnership' were underestimated in the current policy. Furthermore, deviating scoring can be found in the majority of the themes, thus, creating a chance and necessity for additional improvements in the field of sustainable development policy.

Table 2. Progress towards sustainable development in the European Union.

SDI theme	Headline indicator	EU-27 evaluation
Socio-economic development	Growth of GDP per capita	4
Sustainable consumption and production	Resource productivity	4
Social inclusion	Risk of poverty ^{****}	3
Demographic changes	Employment rate of older workers	3
Public health	Healthy life years ^{****}	3
Climate change and energy	Greenhouse gas emissions [*]	2
	Consumption of renewables	2
Sustainable transport	Energy consumption of transport relative to GDP	3
Natural resources	Abundance of common birds ^{**}	3
	Conservation of fish stocks ^{***}	1
Global partnership	Official development assistance ^{*****}	1
Good governance	[No headline indicator]	0

^{*} EU-15; ^{**} Based on 19 Member States; ^{***} In North East Atlantic; ^{****} EU-25, from 2005; ^{*****} From 2005
Source: Own performance according to European Communities (2009, p.8).

Legend:

Note	Without quantitative target	With quantitative target
4	Changes are clearly favourable in the context of SD objectives	Changes are on track to reach the EU target
3	No or moderately favourable changes in relation to SD objectives	Changes are close to the theoretical linear path to the target
2	Changes are moderately unfavourable in the context of SD objectives	Changes are far from the theoretical linear target path
1	Changes are clearly unfavourable in relation to SD objectives	Changes have occurred in the wrong direction, i.e. the indicator is moving away from the target
0	Contextual indicator or insufficient data available for an evaluation (e.g. no EU aggregate available, or time-series is too short for a reliable assessment)	

Source: *Own performance according to European Communities (2009, p.37).*

As mentioned above, the number of the available indicators of sustainable development is changing each year. Confirming the EU experiences, the results show a need to reconsider the achieved outcomes of the previous SD policies. This could be helpful in a more effective and sustainable allocations of available budgets in the future policy frameworks.

5. CONCLUSIONS AND RECOMMENDATIONS

Evaluation of sustainable development policies in the European Union is a very dynamic process. In this paper, we analyze progress of sustainable development and different policy instruments in the European Union. We also evaluate the previous and current sustainable policy actions.

According to the presented analysis of the scheduled SD actions, the priority in the EU policies has been given to 'Socio-economic development', 'Sustainable consumption and production', and 'Social inclusion'.

On the contrary, smaller interest was expressed with regard to 'Good governance' that does not have specified any headline indicators. Moreover, four times higher attention paid to 'socio-economic development' actions as compared to 'Good governance' actions can be interpreted as a signal for creation of effective improvement instruments and measures.

Several research studies analyze the question of sustainable development. The challenge for future research investigations consists in selecting most reliable and sustainable solutions. Most important in this process is a reliable methodology as well as considering new instruments from the field of strategic management. The methodology and data set updates expected to take place in the following years on the EU level will create new challenges for development of new political strategies and evaluation tools. The presented results show the necessity of a more sophisticated discussion on several issues in the field of sustainable development, mainly on 'Good governance'.

REFERENCES:

- [1]. **Kjaerheim, G.** (2005) *Cleaner production and sustainability*, Journal of Cleaner Production 13, pp.329-339
- [2]. **Little, A.W.; Green, A.** (2009) *Successful globalisation, education and sustainable development*, International Journal of Educational Development 29, pp.166-174
- [3]. **Council of the European Union** (2006) *Review of the EU Sustainable Development Strategy (EU SDS) - Renewed Strategy*, Brussels, 9 June, 10117/06
- [4]. **European Communities** (2009) *Sustainable development in the European Union. 2009 monitoring report of the EU sustainable development strategy*, European Communities, Luxembourg
- [5]. **Eurostat** (2009) *Indicators for monitoring the EU Sustainable Development Strategy*, [Online], Available at: <http://epp.eurostat.ec.europa.eu/portal/page/portal/sdi>, [Accessed 19 December 2009]
- [6]. **U Thant Institute** [Online], Available at: <http://www.uthantinstitute.org/>, [Accessed 08 January 2010]
- [7]. **UNESCO** (2007) *The UN Decade for Education for Sustainable Development (DESD 2005–2014): the first two years*, UNESCO, Paris
- [8]. **United Nations** (1987) *General Assembly, 4 August 1987, English. Forty-second session. Item 83 (e) of the provisional agenda, A/42/427. Development and international economic co-operation: environment. Report of the World Commission on Environment and Development. Annex: Our Common Future*

Index of Authors

A

Antonelli, M.A. (5)

B

Balogh, P. (87)
Balteș, N. (95)
Boatcă, M.E. (113)
Brezeanu, P. (13, 143, 341)
Bucurean, M. (25, 105)
Butuza, A.C. (33)

C

Catana, P. (41)
Cenar, I. (51)
Cenușe, M. (61)
Chaiboonsri, C. (69, 87)
Chaitip, P. (69, 87)
Cîrnu, D. (333)
Ciuhureanu, A.T. (95)
Cociuba, M.I. (365)
Costin, M.A. (25, 105)
Cucu, C.I. (113)
Cucu, I. (113)

D

Danailă (Andrei), A.E. (349)
Dăniasă, C.I. (321)
Dinculescu, E.S. (121)
Dobre-Baron, O. (129)
Drigă, I. (61)

F

Feies, G.C. (225)
Fleșer, A. (129)
Florescu, D. (143)
Fulger, V. (151, 189)

G

Gorski, H. (95)
Grigore, C. (175)
Grigore, G. (167, 175)
Grigore, Gh. (175)

H

Hedre, L.V. (33, 183)
Hirghiduș, I. (151, 189)
Huidumac, C. (13)
Hulea, L. (197)

L

Lábodi, Cs. (207)
Loghin, D. (349)

M

Marin (Nedelcu), M. (349)
Markova, S. (217)
Mateș, D. (225)
Michelberger, P. (207)
Mungiu-Pupăzan, M.C. (235, 357)
Munteanu, R. (243)

N

Njanike, K. (251)

P

Petkovska-Mirčevska, T. (217)

Popeangă, V. (309)

Răbonțu, C.I. (265, 333)

R

Rus, L. (273)

S

Sabău-Popa, C.D. (283)

Sava, A.Ș. (291)

Schmidt, M.C. (301)

Sriboonchitta, S. (87)

Sriboonjit, J. (69)

Sriwichailamphan, T. (69)

Stăncescu, I. (309)

Stuparu, D. (321)

T

Todoruț, A.V. (265, 333)

Triandafil, C.M. (13, 341)

U

Ușurelu, V.I. (349)

V

Vasile, T. (321)

Vasilescu, M. (235, 357)

Vătuiu, V. (309)

Vătuiu, V.E. (309)

Z

Zapodeanu, D. (365)

Ziolkowska, J. (373)

Ziolkowski, B. (373)

*The publication of the papers in the Annals of the University of Petroșani - Economics
is the result of a peer review evaluation process.*

The papers were reviewed by the members of the Advisory Board.