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Competitiveness of Romania's South-East Region in the European Context

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Impact of certification on fruit producers in the Sao Francisco Valley in Brazil

Andréa Cristina DÖRR

andreadoerr@yahoo.com.br

Ulrike GROTE

grote@iuw.uni-hannover.de

*Institute of Environmental Economics and World Trade
University of Hanover, Germany*

Abstract

Producers and exporters of fresh fruits and vegetables from developing countries like Brazil are increasingly required to demonstrate the safety and traceability of their produce up to the consumption stage. In fact, the Brazilian export market is still relatively underdeveloped, with an export share of only 2.4% of the total produced volume. However, certification may also have the effect of a non-tariff trade barrier, undermining the capability and financial ability of especially small-scale farmers in exporting to international markets. This study, therefore, aims at providing an economic analysis of certification on mango and grapes producers. A survey of 303 grapes and mango farmers was conducted in 2006 in the Juazeiro and Petrolina regions of the Sao Francisco Valley in Brazil. Certified and non-certified farmers as well as those in process to obtain certification were included in the sample. Empirical analysis using a logit model shows that grapes farmers have higher probability to certify than mango growers. There are two variables which have a positive and significant effect: education and experience. However, small-scale farms, the dependency on non-agricultural income and a trust-based arrangement have a negative but significant effect.

Keywords: Certification, fruits, logit model

1. Introduction

Several crises and scandals like the one on Bovine Spongiform Encephalopathy (BSE) have shaken the European food sector over the last decades. Despite public regulations and government control, most of the BSE cases were not detected immediately, consequently leading to a decline in the consumer's confidence in the safety and quality of many food products. As a result, the private sector in many European Union countries developed consumers' protection strategies such as new quality labels based on control throughout the whole value chain (Caswell & Modjuska, 1996).

The European retail chains have assumed a leading role in the formulation of food safety and quality standards. Their international supplier base, especially in developing countries, needs to adapt and comply, if they wish to continue trading with major retailers (FAO, 2007). It is widely recognized that quality and safety standards play an important role for developing countries, especially for their agricultural sectors. There is a growing concern that standards will undermine the competitive progress already made by some developing countries and present insurmountable barriers to new entrants in the high-value food trade (Jaffee et al., 2005). Henson & Loader (2001) find that Sanitary and Phytosanitary Measures (SPS) are the greatest impediment to developing countries' exports to the EU, surpassing transport and other direct export costs, tariffs or quantitative restrictions.

Nevertheless, food safety standards can also have positive implications for developing countries. These countries may gain and maintain access to markets of high-value agricultural and food products, especially in industrialized countries (Henson & Jaffee, 2007). From this standards-as-catalyst angle, the challenge inherent in compliance with food safety and agricultural health standards may well provide a powerful incentive for the modernization of developing countries export supply chains and give greater clarity to the necessary and appropriate management functions. Further, via increased attention to the spread and adoption of good practices in agriculture and food manufacture, there may be spillovers into domestic food safety and agricultural health to the benefit of the local population and domestic producers. Hence, part of the costs of compliance could be considered as investments into the national economy.

Rather than degrading the comparative advantage of developing countries, enhancement of capacities to meet stricter standards could potentially create new forms of competitive advantage. Hence, the process of standards compliance could conceivably provide the basis for a more sustainable and profitable trade over the long term, albeit with some particular winners and losers (Jaffee & Henson, 2004).

Fresh fruits are an example of a traditional agricultural export crop and they illustrate the potential for agricultural diversification and production of high-value crops. Brazil is the third largest producer of fruits among developing countries, after China and India. Its total production was 43.8 million tons in 2004, representing 3.2 % of the production of all developing countries. However, it is estimated that only around 2% of the country fruit production (in terms of volume) is exported generating US\$370 million (Brazilian Fruit Institute (IBRAF), 2004).

Grapes and mango exports have been the most successful cases, with around 260,000 tons and 550,000 tons each being cultivated. The regions of Petrolina and Juazeiro, which are part of the Sao Francisco river basin, is responsible for this export performance. This region produced 99% and 88% of the country's grapes and mango exports (IBRAF, 2004). VALEXPORT (2006) estimates that the sector generates a total of 240,000 jobs directly and 960,000 jobs indirectly in the region.

The objective of this study is to identify the determinants of certification among mango and grapes producers in Brazil. In particular, the study assesses whether there are significant differences in the characteristics between mango and grapes producers or not; and whether the impact of the determinants of certification are the same for mango and grape farmers. The paper is structured as follows: after this introductory section, some recent studies will be reviewed in the second section. Section 3 presents the primary data base and methods applied for analysis by outlining the logit model that is used in the study. Section 4 presents the results which will be followed by the final Section 5 with the main conclusions and the policy implications.

2. Literature review

2.1 Theoretical and empirical evidences

The literature outlines different approaches which have been used to examine relationships between certification and value chains. Both issues are closely related since certification may drive integration in the value chain. Special emphasis will be put on empirical examples from the food sector, in particular related to horticultural products.

Carambas (2007) conducts a cost-benefit analysis comparing certified organic and conventional rice producers in Thailand. The net returns for farmers of eco-labeled products were estimated and compared with those of conventional farmers. The difference in incomes per unit of eco-labeled and conventional products depends on the magnitude of the price premium. The costs involved in producing eco-labeled products relate to capital costs due to adjustments to new technologies, additional costs of production and processing and increase in

labor requirements, additional cost of raw material, cost of testing and certification. However, financial, environmental and health benefits also accrue to producers of labeled organic rice. Financial net benefits depend largely on the presence of a price premium.

Cook (2000) analyzes the implications of drivers on fresh fruit and vegetables value chain in the US market. She concludes that the fresh producing industry is clearly leading to a greater vertical coordination of the distribution system via more supply chain oriented procurement models, despite the fact that conventional retailers are lagging mass merchandisers in this regard. The explosive growth of the Supercenter format is a compelling force that will continue to move conventional retailers in this direction.

Schipmann (2006) aims at comparing international and national value chains with regard to potential benefits for smallholders and existing entry barriers to their integration in the chilli sector of Ghana. Her results have shown that international value chain integration may offer additional benefits compared to national value chains. In this manner, smallholders have the ability to improve their production skills and become integrated into higher value chains through appropriate incentives. Besides, the author finds that the integration promotion of the poorer population (e.g. smallholders) into the value chain is a useful instrument to promote large-scale pro-poor growth.

Chemnitz (2007) provides an empirical analysis of the compliance decision behavior and the compliance process of standards related to the Moroccan tomato export sector. The study aims at understanding who the drivers for the compliance decision are, by comparing the determinants of the decision process between certified and non-certified producers. The results suggest that small producers are not particularly disadvantaged in the compliance process. However, less organized and less integrated farmers tend to be less favored, especially in cases when integration diminishes the cost of compliance. Additionally, integration may facilitate the information access from buyers' requirements.

Lu (2005) uses a composite of various indicators to measure the effects of different variables of transaction costs on the technical efficiency of the tomato supply chain. The four categories of transaction costs used are: (a) transportation costs: depending on distance, time, road conditions and availability of own means of transport; (b) information costs: depending on the number of traders visited before selling and the sources of access to market information; (c) negotiation costs: related to the number of visits for reaching an agreement with respect to selling the tomato; and (d) monitoring costs: related to the number of years that the farmer is engaged with the trader.

Neves (1999) analyzes the orange juice chain in Brazil using transaction cost approach as theoretical background. He analyzed the transaction costs between fruit growers and the processing industry. His findings reveal that the transaction costs between fruit growers and the industry still have to be better coordinated for the chain to be more competitive. He suggested to reduce costs, to improve supply guarantee and to enhance trust via contracts. Table 1 presents a summary of the main studies in the horticulture sector. While many authors have discussed empirical approaches to different products, only few studies have focused on the theory (see (Chau, Basu & Grote, 2004) and (Basu et al., 2007)). A more comprehensive approach to standards is certification consisting of a number of different standards and regulations relating to food quality, environmental or social issues. Certification generally aims at providing consumers with better information about the characteristics and quality of food products, thus enhancing market transparency. The question of governance arises when some firms in the chain work according to standards set by others. Standards that are specified also have to be monitored and enforced. Therefore, value chain governance involves institutions for monitoring and enforcing compliance of certification. Specifically in the fruit sector, given the large number of certification systems, it is important to provide an economic analysis to increase the competitiveness and efficiency.

Table 1: Summary of the main studies in the horticulture sector categorized by the approach

Authors	Year	Type of product	Country	Contents	Approach
Carambas	2007	Organic rice	Thailand	Cost: capital costs, raw material, testing and certification; Benefits: financial, environmental and health	Cost and benefit
Gogoe	2003	Pineapples	Ghana	Cost and benefits to implement EurepGAP	Cost and benefit
Cook	2000	F&V	US	Identification of drivers of change	Global value chain
Shipmann	2006	Chili	Ghana	Comparing international and national value chains	Global value chain
Dolan & Humphrey	2000	F&V	UK, Kenya and Zimbabwe	Identifying the key decision-makers and how their requirements for the performance of the chain	Global value chain
UNCTAD	2007	Banana	international	Identification of actors in the chain	Marketing chain
FAO	1989	F&V	international	Understand the link in the marketing chain between farmers and traders	Marketing chain
UNCTAD	2007a	Citrus	Brazil and US	Identify the players in the distributional channel; degree of concentration	Marketing chain
Chemnitz	2007	Tomato	Morocco	Identification of drivers for the compliance decision	Diffusion of innovation
Kleinwechter & Grethe	2006	Mango	Peru	Identification the mechanisms that lead producers to adopt the EurepGAP standard	Diffusion of innovation
Lu	2005	Tomato	China	Transaction costs on the technical efficiency: transportation information, negotiation and monitoring	Transaction cost
Neves	1999	Orange juice	Brazil	Transaction costs between fruit growers and the processing industry	Transaction cost
Carvalho	2003	Fresh fruit	Brazil and UK	Determinants for the configuration of transaction arrangements in the fruit trade	Transaction cost
Lopes	2003	Citrus	Brazil	Characteristics of the standard contract used and the attributes of contracts	Transaction cost

Source: Own compilation based on the literature review (note: F&V= fruits and vegetables)

2.2 Certification schemes in Brazil

There are a few studies on certification which have been carried out in Brazil. Major results will be briefly presented. A more detailed description of the four certification schemes will follow in the next section. The adoption of selected certification schemes in the fruit sector differs by region and product in Brazil. According to the statistics from INMETRO (2007), there are more than 1,500 producers with Integrated Fruit Production (PIF) certification or being in process of having it. They are responsible for nearly 1 million tons of fresh fruit produced on 40 thousand ha. There are a total of 1,521 producers spread over the country producing one of the 16 types of fruits. In the SFV, there are totally 49 mangoes producers and 101 grapes producers who adopted PIF certification.

With respect to organic certification, Darolt (2000) verifies the evolution of organic production in Brazil and points out that the lack of updated statistics makes it difficult to evaluate this alternative agricultural system. Nevertheless, the author gathered data from the organic certifying companies and associations and concluded that around 100 thousand ha have been planted by 4,500 farmers concentrated mainly in the states of Paraná, Sao Paulo, Rio Grande do Sul and Espírito Santo in the year 2000.

Agrotecnologia (2007) presents data regarding the number of farmers with GlobalGAP certificate. In 2007, there were more than 68,000 producers spread all over the world, with approximately 10,000 being fruits and vegetables growers. In total there are only 540 Brazilian farmers who are certified according to GlobalGAP standards. This national figure is - in comparison with the global figure - relatively small. Most of the certified farmers are grapes (45%) and lime growers (33%). In terms of land, soybeans and maize crops require huge areas, occupying 48% of the total area certified involving only 8 farmers. On the other hand, fruit culture is characterized as an activity with intensive labor and is compatible with small productive areas. Therefore, it represents an important alternative to producers who depend largely on family labor force. There are no official data available on Fairtrade certification in Brazil though it does play some role in the survey regions. Implementation of Fairtrade certification started in 2005 only.

The comparative analysis of the four certification schemes which exist in the fruit sector in Brazil has shown that GlobalGAP and the Integrated Fruit Production (PIF) are similar certification schemes. However, they differ with respect to the number of requirements and their distribution over various stages (e.g. production, post-harvesting). In addition, PIF certification requires a book keeping system opposed to GlobalGAP. But since, GlobalGAP auditors accept the book keeping provided by PIF, farmers aiming to adopt GlobalGAP face an easier process when they have already PIF.

Contrary to PIF and GlobalGAP, Fairtrade certification concentrates on producers' organizations and cooperatives where small-scale farmers belong to and not on individual farmers. In addition, a lot of attention is paid to the labor and environmental conditions, besides the guarantee of a minimum price for farmers. With respect to organic certification, the requirements are not directed to a particular product or crop and their level of compliance is not indicated. Major emphasis is put on the production system. Organic and Fairtrade certification do not have an own book keeping for records. All four programs are subject to monitoring but with different frequency. PIF certified farmers are monitored three times a year, GlobalGAP requires monitoring twice a year and Organic and Fairtrade certified producers are monitored once a year.

3. Data and methods

Data collection

A survey of 303 farmers was conducted between July and October 2006 in the Sao Francisco Valley, on the surroundings of Petrolina (state of Pernambuco) and Juazeiro (state of Bahia) in Brazil. The two-stage stratified sampling technique was applied as outlined by Levy & Lemeshow (1999). The first stratum included small¹ (<12 ha), medium (>13 and <49) and large producers (>50 ha) in both regions. The final step involved the identification of producers with certification, the ones without certification and those in the process of becoming certified. A total of 18 strata were identified. To ensure that this sample population could yield significant results from econometric analysis, a statistical power analysis was made to determine the sample size, whereby expected effect size, i.e. expected differences of means of two populations or the alternative hypothesis, can be detected with a certain power and significant level. This approach requires information on population means (μ) and standard deviation (σ) based on lists of producers. The sample size of each stratum was calculated using the program Russlenth².

4. Results and discussions

4.1 Descriptive statistics of the survey

For the mango and grapes producers, a total of 155 surveyed farmers (51%) have no certification, those in process comprise 94 (31%) and those who are already certified comprise 54 (18%). The descriptive statistics based on the survey are presented in the following separately for each type of fruit. It is structured according to the (a) socio-economic factors and the (b) farm characteristics.

(a) Socio-economic factors

The survey collected data regarding socio-economic characteristics of mango and grapes producers, including age, gender and level of education. With respect to age, it was found that the producers are on average 49 years old. It was expected that the ones who have adopted certification would be younger than the non-certified producers since they might be more open to new technologies or practices (D'Souza et al., 1993). However, there is hardly a difference between the two groups: certified producers were on average 48.8, while non-certified ones were 50.5 years old. Thus, the expected result is not supported by the data. Similarly, it was expected, that producers who are certified would have more years of schooling and long-term experiences in growing fruits than the non-certified ones. However, the results show that on average certified and non-certified producers have both 7.7 years of schooling. The farmers in process have the highest level of education with 10.2 years of schooling. The figures on the years of experiences show that certified producers have on average 7.3 years of experience in grapes and 9.2 years in mango production while the non-certified producers have only 5 years and 7 years, respectively. While the years of schooling do not seem to influence the decision to adopt certification, the years of experience do.

The data show that mango and grapes were the main source of income for 91% of the certified producers, for 80% of the producers in process, and for 75% of the non-certified producers. Apart from producing mangoes and grapes, farmers are also involved in the production of other tropical fruits such as coconuts, guava, melons, banana and papaya (15% of non-certified producers and 2% of certified ones). This result reflects the high dependence of the producers on fruits in general, but also indicates a stronger trend towards specialization for certified producers.

¹ Definition of land size according to SEBRAE of Petrolina

² Available on the website: <http://www.cs.uiowa.edu/~rlenth/Power/> (Accessed on August 2006)

(b) Characteristics of the farms

A comparison of the mean values between the groups clearly indicates that certified mango and grapes farmers have much more land (100 ha and 93 ha) and more irrigated area (40 ha and 29 ha) compared to non-certified (Table 2). Indeed, an irrigation system is necessary for fruit production in the surveyed region. There are two types of irrigation systems: the drip and micro sprinkler which are considered very sophisticated while furrow and conventional sprinkler are less sophisticated. The study reveals that most of the certified farmers use very sophisticated irrigation systems (83%). However, also a high percentage of the non-certified farmers have very sophisticated systems (59%).

The type of used irrigation system plays an important role with respect to the productivity of the farm. The results show that mango yields on average amount to 19.3 tons per ha for non-certified producers, 20.5 tons per ha for producers in process, and 25.9 tons per ha for certified producers. Concerning grapes, the productivity for non-certified producers is nearly 16.3 tons per ha, while for those in process and for the certified ones, 18 and 23 tons per ha are achieved. Thus, certified farmers achieve in the given sample higher yields than non-certified ones. But they also have relatively higher net income. Regarding the average net income of grapes farmers, it was found to be around R\$12,700³ per ha for non-certified farmers, R\$15,850 for those in process and R\$20,150 for the certified ones. Concerning mango farmers, the average net income is approximately R\$9,000 for non-certified farmers, R\$8,300 for those in process and R\$10,100 per ha for the certified ones⁴.

Table 2: Farm characteristics of mango and grapes farmers

Variables Mean value	Non-certified	Producers in process	Certified	Ch ² , t test
	N=155	N=94	N=54	
Mango				
Land size (ha)	20.0	18.2	101.0	0.003***
Irrigated area (ha)	10.3	11.7	39.8	0.000***
Yield (tons per ha)	19.3	20.4	25.9	0.003***
Total income (R\$)	125,263	141,236	1,215,991	0.000***
Income (R\$/ha)	17,050	8,325	10,076	0.000***
Production costs (R\$)	58,314	62,831	463,108	0.000***
Costs (R\$/ha)	7,965	7,631	11,814	0.000***
Total net income (R\$)	67,048	78,405	752,882	0.327
Net income (R\$/ha)	9,085	8,325	10,076	0.887
Grapes				
Land size (ha)	34.7	8.2	93.5	0.194
Irrigated area (ha)	14.4	6.3	28.9	0.198
Yield (tons per ha)	16.3	17.9	22.9	0.014***
Total income (R\$)	188,878	348,396	606,227	0.006***
Income (R\$/ha)	28,947	31,513	42,748	0.016***
Production costs (R\$)	89,279	160,348	324,250	0.083***
Costs (R\$/ha)	16,249	15,666	22,612	0.005***
Total net income (R\$)	99,598	188,048	281,977	0.012***
Net income (R\$/ha)	12,698	15,847	20,145	0.085***

*** Statistically significant at 1% level; ** at 5% level; * at 10% level

Source: Own compilation

³ 1US\$ = R\$2 at the time of data collection

⁴ The total income refers to the fruit production only, however other income sources were found to be negligible.

4.2 Econometric estimates for the mango and grapes models

The logit regression results from the econometric analysis (coefficient, odds ratio, standard deviation, marginal effect, p-values and 95% confidence intervals) for grapes are presented in Table 3 and for mangoes in Table 4. The dependent variable is a dummy variable reflecting the decision of the producer to adopt certification or not. The results reveal that the adjusted Wald test for the model indicates that it is highly significant at 1 percent level. The R^2 is 0.13 and 0.14 for grapes and mangoes, respectively. Thus the Hosmer-Lemeshow test shows that both models present a good fit. The area under the ROC curve for the regressions is 0.75 for both cases which reveals that the model presents adequate discrimination. Likewise, the link test presents results according to the expectations meaning that the model does not have relevant omitted variables. The correlation tables have shown that there is no case of coefficient higher than 0.4.

The first variable to be analyzed is the type of fruit that the farmers are harvesting. Comparing the results of mango and grapes farmers, mango and grapes present an odds ratio of 0.43 and 2.05, being statistically significant at the 1% and 5% levels. The results indicate that producers, who are mango growers, have lower chances to certify while those who concentrate on grapes production are two times more likely to certify. Producers with a higher level of education are more likely to adopt certification. The odds are the same for both fruits: 1.09 and also the differences between the groups are highly significant.

The small size of the farm contributes negatively to certify. Both, mango and grapes growers have an odds ratio of 0.53, which means that farmers who possess less land than 12 ha have two times lower chances to certify. Burton et al. (1998) mention that in the United Kingdom, managers of smaller holdings are more likely to adopt certification, but farm size *per se* does not explain the timing of that decision. The dependence on the income obtained from non-agricultural sectors also has a negative impact on the decision. In the case of grapes farmers, the chances decrease by 2.5 times while for mango ones, the chances decrease by 2.7 times. It indicates that the higher the dependence on non-agricultural income, the less likely the farmers are to certify. For each additional year of experience the chances to adopt certification increase 9 times. The contract arrangement "trust-based" contributes to decrease the level of producers to certify by 2.3 times. The results are statistically significant at the 1% level. The uncertainty of favourable arrangements and payment conditions may influence the decision making.

Table 3: Logistic regression results on the certification decision for mangoes producers

Variables	Odds ratio	Robust Std. Err.	z	P> z	95% CI	
Mango	0.412	0.129	-2.83	0.005***	0.223	0.761
Gender	1.078	0.411	0.20	0.842	0.510	2.278
Education	1.097	0.333	3.03	0.002***	1.033	1.165
Manager	1.106	0.385	0.29	0.771	0.559	2.188
Size	0.530	0.160	-2.10	0.036**	0.293	0.958
Non agri income	0.393	0.140	-2.61	0.009***	0.195	0.793
Years experience	1.094	0.040	2.46	0.014***	1.018	1.175
Type irrigation	1.128	0.348	0.39	0.695	0.616	2.067
Irrigated area	0.489	0.272	-1.28	0.201	0.164	1.461
Trust relat	0.393	0.137	-2.67	0.008*	0.198	0.778

Dependent variable: certified and non-certified producers; n=303

*** Significant at 1% level; ** 5%; * 10%

Adjusted Wald Test F(10, 303)=33.13 p<0.0003

Pseudo R2 0.1198

Hosmer-Lemeshow goodness-of-fit test Chi2(8)= 5.72 p< 0.6785

Area under the ROC curve 0.7353

Source: Own calculations

Table 4: Logistic regression results on the certification decision for grapes producers

Variables	Odds ratio	Robust Std. Err.	z	P> z	95% CI	
Grapes	2.194	0.678	2.54	0.011**	1.197	4.020
Gender	1.101	0.430	0.25	0.805	0.511	2.370
Education	1.094	0.340	2.92	0.003***	1.030	1.163
Manager	1.155	0.400	0.42	0.676	0.586	2.278
Size	0.525	0.157	-2.15	0.031**	0.292	0.944
Non agri income	0.363	0.132	-2.77	0.006***	0.177	0.743
Years experience	1.091	0.047	2.34	0.019***	1.014	1.174
Type irrigation	1.120	0.344	0.37	0.711	0.613	2.047
Irrigated area	0.478	0.267	-1.32	0.188	0.159	1.434
Trust relat	0.397	0.138	-2.65	0.008**	0.200	0.795

Dependent variable: certified and non-certified producers; n=303

*** Significant at 1% level; ** 5%; * 10%

Adjusted Wald Test F(10, 303)=28.49 p<0.0015

Pseudo R2 0.1177

Hosmer-Lemeshow goodness-of-fit test Chi2(8)= 6.59 p< 0.5813

Area under the ROC curve 0.7359

Source: Own calculations

4.3 Econometric estimates for the decision of adopting two versus one certificate

This analysis focuses on the 148 certified grapes and mango producers in the Juazeiro/Petrolina region. The regression estimates were done separately for each fruit aiming to assess the determinants that lead farmers decide to adopt one or more certification schemes. The adjusted Wald test for the models indicates that the models have good explanatory power at 1% level. The R² is 0.36 and 0.51 for the grapes and mango models, respectively. For both models, the Hosmer-Lemeshow test presents a good adequacy, the ROC curve presents adequate discrimination and there are no omitted variables. The regression results are presented in Table 5 and Table 6.

For both models, the variable subcontracting a packing house plays a major role in the decision to adopt two certificates. Considering that fruits are perishable, farmers who utilize the packing house from the groups, cooperatives or associations they belong to, have better conditions to maintain the fruits with high quality. Mango farmers who have less planted area have 11% lower chances to adopt a second certificate at 5% level. Although for grapes farmers, having more planted hectares impact positively, the variable is insignificant. However, factor as the total labor (insignificant in the grapes model) increases slightly the probabilities.

In addition, each more year of trading with the current buyer decreases the chances by 50% and 31% to adopt the second certificate for mango and grapes, respectively. Further analysis in the marketing chain shows that in both models, there is a negative and significant (only for mango) effect to adopt two certificates if the buyer comes with a truck to the farm to collect the production. Living in the city decreases the chances to adopt a second certification scheme by approximately 85% for both types of farmers. Once the farmer has one certification, the social network and the distance to places where courses are held no longer contribute with further information. Further, there are some variables which are not statistically significant. The variables whether a manager runs the farm and having a sophisticated irrigation system impact positively on the decision-making. For mango, age has a positive sign and education a negative one, whereas the opposite results were found for grapes.

Table 5: Logistic regression results on the decision of mango farmers to adopt two versus one certificate

Variables	Odds ratio	Robust Std. Err.	Z	P> z	95% CI	
Age	1.022	0.032	0.70	0.482	0.961	1.087
Education	0.996	0.081	-0.04	0.969	0.849	1.170
Manager	1.988	1.928	0.71	0.479	0.296	3.313
Living_city	0.173	0.180	-1.69	0.091*	0.022	1.325
Ha	0.806	0.045	-2.13	0.033**	0.810	0.991
Total_labor	1.061	0.023	2.71	0.007***	1.016	1.107
Type_irrig	2.747	2.141	1.30	0.195	0.596	3.661
Sub_packing	3.684	3.211	2.29	0.017***	1.501	7.469
Trans	0.184	0.171	-1.82	0.069*	0.299	1.137
Year_buyer	0.502	0.082	-4.18	0.000***	0.363	0.693

Dependent variable: farmers having one and two certificates; n=148

*** Significant at 1% level; ** 5%; * 10%

Adjusted Wald Test F(10, 148)=48.01 p<0.0000

Pseudo R2 0.5122

Hosmer-Lemeshow goodness-of-fit test Chi2(10)= 102.63 p< 0.9852

Area under the ROC curve 0.9378

Source: Own calculations

Table 6: Logistic regression results on the certification decision of grapes farmers to adopt two versus one certificate

Variables	Odds ratio	Robust Std. Err.	Z	P> z	95% CI	
Age	0.985	0.025	-0.55	0.581	0.936	1.037
Education	1.020	0.064	0.33	0.745	0.901	1.156
Manager	1.087	0.970	0.09	0.925	0.189	6.245
Living_city	0.156	0.132	-2.18	0.029**	0.029	0.826
Ha	1.073	0.107	0.72	0.474	0.883	1.305
Total_labor	1.003	0.009	0.41	0.684	0.985	1.022
Type_irrig	1.860	1.266	0.91	0.362	0.490	3.062
Sub_packing	3.785	2.087	2.66	0.008***	1.824	6.490
Trans	0.261	0.360	-0.97	0.330	0.017	3.899
Year_buyer	0.694	0.145	-1.74	0.082*	0.460	1.047

Dependent variable: farmers having one and two certificates; n=148

*** Significant at 1% level; ** 5%; * 10%

Adjusted Wald Test F(10, 148)=31.71 p<0.0008

Pseudo R2 0.3649

Hosmer-Lemeshow goodness-of-fit test Chi2(10)= 142.15 p< 0.3417

Area under the ROC curve 0.8905

Source: Own calculations

Conclusion and policy recommendations

In developed countries, particularly in the European Union and the United States, demand for higher levels of food safety has led to the implementation of certification programs that address more types of safety-related attributes and impose stricter standards. Certification systems play an important role in any market that is burdened with a high degree of information asymmetry and quality uncertainty. Thus, producers and exporters of fresh fruit and vegetables from developing countries like Brazil are increasingly required to demonstrate the safety and traceability of their produce up to the consumption stage. The producers also

have to show that they have taken all possible precautions in terms of food and environmental safety along the chain, assured via a certification scheme.

Some descriptive statistics results are shown from the comparative analyses between certified and non-certified farmers of grapes and mango from the survey areas. An analysis of the characteristics of the farmers concludes that certified farmers are generally not better educated than non-certified ones. The high dependence on the income from fruit production combined with a sophisticated irrigation system leads to higher net income for all certified farmers. In addition, certified farmers of the four types of fruits have higher productivity, more land allocated to the specific fruit and more years of experience in the field. Mango and grapes certified and in process farmers have invested high amounts in new infrastructure. Despite the higher costs per ha, they receive net income which is slightly higher for the certified farmers but slightly lower for the farmers in process.

The econometric analysis has shown that grapes growers are more likely to certify than mango ones. There are two variables which have a positive and significant effect: education and experience. However, small-scale farms, the dependency on non-agricultural income and a trust-based arrangement have a negative but significant effect. The results from model adopting one versus two certificates revealed that utilizing the packing house from the group, cooperative or association plays the major role in the decision to adopt two certificates. In addition number of employees working on the farm has also a positive effect. Variables such as 'years trading with the buyer' and 'living in the city' have a negative and significant influence on the decision making. Transportation and planted ha is only negatively significant for mango farmers.

In the survey regions, it is important that organizations promote and give incentives to farmers to participate in training courses, workshops and discussions with experts. They should also provide updates related to certification, disseminate information on new varieties and help finding solutions for plagues and diseases in the orchards. Information should equally reach farmers living in rural villages and on the farm. Unfavourable factors are the distance from the rural village to the city center, where usually training courses and workshops are held, and the lack of adequate facilities. In this line, organizations should promote regional and local meetings.

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Emotions Management within Organizations

Alina Maria ANDRIEȘ

alinaandri@yahoo.com

"Spiru Haret" University, Bucharest

Abstract

Emotions management in organizations is meant to habilitate the employees in administrating the emotional resources aiming at the correct adaptation to the organizational environment and the necessities in the work activity. The study of emotions in organizations has the purpose to know and optimize the employees' emotional condition. The efficient leaders are interested in administrating the emotions, being aware of and capable to reevaluate the factors which positively activate the employees emotional life. Emotions management is accomplished at two more important levels: personal level or subjective (represented by the person's self-control capacity, the emotional intelligence, the ability to administrate the positive and negative emotions) and an interpersonal or social level, centered upon settling the emotional changes between employees and leaders, between employees and clients. From their settling into the practice point of view, the increase in the work performance and the benefits brought to the organizational environment, the concepts by which emotions management is accomplished/operate (positive emotions and negative emotions, emotional intelligence, emotional self-control, emotional labour etc.), this issue presents greater interest both for theorists and for the real doers/practitioners.

Keywords: emotions management, emotional labour, emotional contagion, emotional intelligence, organizational group.

Jel Code: M1, M12, M54

Introduction: The present paper is structured into five chapters. In the first chapter I presented briefly the scientific actual stage of the emotions in organizations research field and I made the inventory for three, for the more important reasons which explain why emotions represented in the past, neglected dimensions in the organizational psychology studies. In the second part I described a series of conceptual specifications concerning the emotions and I underlined/presented the emotional intelligence as a resource of the emotions management. In the third part I highlighted the main psychological processes which appear at the organizational group level: emotional activation, emotional contagion and the assigning processes. In the fourth part of my work I discussed two dimensions of the emotions management: emotional self-control and emotional labour. Chapter five presents conclusions of this paper.

1. Emotions in organization framework

In modern society, the rapid work rhythm, the high professional exigencies and demands, the pressure that the high standards put in every domain of the social life, influence the employees affective dynamics and shape their relations in the organizational framework. Modern organizations, highly competitive, put a permanent quality control of the professional activity, are oriented towards effectiveness growth at all hierarchic levels, promote values which are dictated by the utility and pragmatism and establish objectives which can be compatible with personal aims and the social actors' vision or, on the contrary, can generate affective and

cognitive dissonances. The effect of the discrepancies between the subjective reality of the employees and the organizational climate are felt at the level of emotional experience, a proof being the experimental researches results which highlight the growing number of affective disturbances and unadapting behaviour reactions (anxiety, low frustration tolerance, diminished self-esteem, stress) as well as their consequences on professional activity, meaning diminished performances.

The ways of life today, significantly differ from the traditional types of social organizations, being characterized by re-structures and rapid modifications in all domains: economic, social, cultural, etc. All these changes, especially performed by the technology force, influenced the modern man's subjective experience and his attitudes towards existence, deepening his inner conflicts, projecting him into an impersonal, mechanic universe, in which the self-assessment process is darkened by continuous necessity to immediately adapt to the exigencies of a dynamic framework, in continuous transformation.

According to the humanist psychologists and the dynamic psychology representatives vision, the psychic energy orientated exclusively towards the external world, leads to losing the contact with oneself, with the inner self, with the individual authentic mode of being. The excessive energy consumption within social activities which that person develops, may lead, gradually, to nervous exhaustion and to the apparition of some nervous disturbances, which, due to their symptoms, report a deficient use of the inner resources. The natural sense of personal growth and development assumes directing the psychic energy towards the inner world aiming to obtain self-awareness.

People spend a lot of time at the place where they work, in different organizations, where they invest an important part of their affective energy, both for the activities they unfold, and for the social relationships, formal and informal. In the organizational environment, individuals get involved into different social parts, which they interiorize, so that these become a component of the inner-self identity. As Jung (2006) explains, the healthy tendency of the mature personality is to step in and to step out of the part. The identification with the social part ("the person"), the mask which the social actor wears) is dangerous for the personality development, blocking the resources which are necessary to the individualizing stage and offering a false direction to the psychic energy only to the aspects of social life, against inner life.

The social environment has undoubtedly, significant positive influences on psychic life, developing the personality adapting capacities (cognitive, emotional, motivational, etc.) which the social actor has. The parts that the individuals accomplish in their social life satisfy both basic needs (deficit), and the metareasons, the self-accomplishment needs (Maslow, 1954): security needs, comfort needs, affiliation, belonging and social integration, the communication needs, cooperation needs, social recognition and self-development needs.

The deep mutations within the economic, social and cultural structures influence modern man's identity, spirituality and mentality building. Modern society, characterized by changes at all levels of social and cultural life, is defined by a series of elements, which differentiate it at the same time from the traditional society: the predominant orientation towards the economic gain, impressive growth of the organizations number, professional specialization and work division, commercial relations diversity, apparition and influence which media has, development of communication modalities and information circulation speed, bureaucracy, monitoring the social agents behavior in organizations. The closed societies, with an authoritative leadership, have been gradually replaced by the open societies, with democratic organization, which promotes human rights and individualism, freedom of speech, innovation, revaluation and stimulation of creative resources belonging to social agents in every domain in

order to meet social competition. Despite all these facts, the experimental programmes and research data reveal the disturbing effects of rapid life rhythm on the individual emotional balance and on the performances in the professional activity. A multitude of studies in the domain highlight the consequences that stress has on the work activity and show the fact that, in the organizational climate, the employees frequently go through negative emotional experiences, feelings of uncertainty, anxiety, associated with the loss or diminished self-esteem, diminished Ego strength, etc.

The level of emotional maturity is influenced by the individual ability to mark the personal limits, to know his/her capacity of self-control, the real challenge for modern man is the amount in which he gains his autonomy and regains his inner balance, in a dynamic mobile, more flexible and more susceptible universe of changes than ever. In every individual there is a potential which can be valued, as well as the resources necessary to adapt efficiently. The sign of psychic health and affective maturity is represented by the subject's ability to administrate the psychic energy and resources he owns, aiming to adapt properly, both to the inner demands and to the social environment exigencies.

In the speciality literature, the number of works which discussed the affectivity problem in organizations, was, a few decades ago, not very large. The low interest which the researchers had on the study of emotions was justified by the difficulties, inherent to an investigation approach in the domain of emotional behaviour, whose specific psychic content is made of "the very living", less accessible observation, assessment and quantification. Some of the reasons for which organizational psychology has ignored the research of the emotional field are explained by the difficulty to study systematically the individual's unpredictable emotions, submitted, due to their nature, to momentary variations and oscillations, under the influence of complex causality mechanisms and combined action, both of internal subjective factors, and external, objective factors:"one moment we are sad, the next elated. One moment we can be fearful, the next triumphant" (Ashkanasy, 2003, p10).

Despite the emotions short length nature and the obstacles which are met in their assessment, as well as in surprising the multiple causes which generate the emotional phenomena, the emotional processes study represents today, a challenge in the research of the organizational behaviour. In Ashkanasy outlook (2003), that makes the study of emotions so interesting is their very dynamic, active character, the fact they are in a continuous change:"Unlike many of the variables that have traditionally been studied in organizational behavior, such as personality, attitudes, and beliefs, emotions and affective states change rapidly from day to day, and even from moment to moment" (Ashkanasy, 2003, p.18). What makes the study of emotions possible, we may add, is the fact that, beyond the diversity of affective feelings, there is a way of working, relatively stable, which the emotional system has, strongly individualized and anchored within the personality system. As memory assures the continuity of psychic life and defines Ego's identity, the emotions, beyond their variety, follow an inner pattern, an emotional pattern, specific to every person, created on the background of affective repetitive experiences, consolidated in time, during the interactions between subjective factors and environmental factors. *Affective memory* registers the emotional experiences, be they pleasant or unpleasant, and predisposes to constant emotional answers, repeatable as compared to certain stimulus categories.

A second reason for which emotions represented for a very long time neglected dimensions within the organizational behaviour researches, is the difficulty to differentiate between the employees' *real, authentic emotions and faked, simulated emotions*. People have the capacity of emotional self-adjustment (affective self-adjustment), implicitly the ability to simulate false emotions, not authentic, disagreeing their real experience. The recent researches give an

increased attention to the emotional experiences part of the employees in the work activity, examining both the affective dissonance and the emotional self-control capacity on the organizational behaviour.

Not lastly, the researchers' low interest in the study of emotions connected to the work activity is explained by the tendency to approach emotion as an antithesis of reason and the classic outlook, which explained emotions having a disturbing, unstable part on organizational behaviour, while reason organizes and establishes activity, ensuring behaviour efficiency and performance. Along the relatively short history of organizational psychology, the emotions approach and interpretation as disturbing and dysfunctional factors in the context of organizational activity led to ignoring the study of their influences on the professional performance, more than this, to considering emotions as obstacles in the path of an effective management.

We can remark the fact that, although the emotions study within organizations represented, not so long ago, a domain avoided by the researchers, there has been noticed lately a significant growth of the number of publications in the organizational psychology area. In present, there is a constant preoccupation from the researchers for the study of emotions within organizations; the greatest majority of theoretical analyses or experimental studies are centered upon a series of aspects such as; professional satisfaction, emotional intelligence, emotional effort or emotion in labour, affective commitment, affective self-control, emotional dissonance, displaying the emotions within the organizational environment, etc.

2. Conceptual specifications

Affective processes represent a complex psychological reality, very difficult to limit within the limits of a single definition. Affectivity, widely put, is defined as an assembly of the emotional processes whose specific content is "the very living" accompanied by *behaviouristic manifestations* and *physiological changes* (Neveanu, 1976; Zlate 2000; Golu 2005). In the Romanian speciality literature (Neveanu 1976; Pavelcu 1937; Zlate 2000; Golu 2005) the typology based on three categories of affective emotions is maintained: 1. *primary processes and affective emotions* (emotional tone; organic nature emotions; affects); 2. *processes and complex affective states* (emotions and moods); 3. *processes and superiour affective states (feelings and passions)*. Although the emotional experiments diversity and richness does not always allow the affective events to be precisely comprised in pre-established and strict categories, the Romanian psychologists theoretical traditional approaches have undoubtedly the value of presenting a systematic description and a clear representation of the affective psychic contents, depending of the criteria such as the *level of consciousness, complexity, expressivity, hedonistic tone, affective emotions duration and intensity*.

As our study analysis unity is represented by emotions in organizations, we consider useful some specifications of terminology. *Emotions* are affective experiences of a short duration, intense, with a calm or troubled unfolding, having a well determined orientation (to objects, persons, specific situations, etc.). Emotions have their origin in the informational processing which take place both at the conscious level and at the unconscious level. Awareness degree of emotions differ very much from one individual to another, but, generally, people have the capacity to "name" their emotions, and ascribe them to some objects or specific causes (Brehm, 1999). Emotions appear in relation with "something", with an internal or external stimulus. The subject affective answers to the events and situations he confronts with are dependent of the stimulus particularities, the significance given to them (cognitive and affective evaluations and, not last, depending on the person's affective disponibility (sensitivity

and the organism specific variables – for instance, physiological reactivity) (Neveanu, 1976; Zlate, 2000; Golu, 2005).

Depending on the hedonic tone, emotions are classified in two categories; positive, pleasant emotions and negative, unpleasant emotions. Watson & Clark (1988) describe two dimensions of emotional experience: *positive affectivity* (emotional comfort and the tendency to experience pleasant feelings/emotions) and *negative affectivity* (emotional discomfort and the tendency to experience unpleasant feelings/emotions).

Positive emotions are associated with: needs accomplishment, obtaining some benefits, positive thinking (functional cognitions). In the category of pleasant affective emotions there are: *joy, delight, satisfaction, enthusiasm*, etc. The apparition of negative emotions is associated with: needs frustration, threatening circumstances, losses, traumatic events, sanctions, constraints, negative thinking (dysfunctional cognitions). In the category of negative emotions there are: *sadness, discouragement, dissatisfaction, anger, unhappiness, regret, frustration, feeling of uselessness, grief, despair, closing in oneself, feelings of culpability, hostility, pain, suffering, fury, shame, disgust, bitterness, envy*. Emotional feelings included in the anxiety nucleus make, as well, series of negative emotions: *awe/dread, worry, agitation, alarm, tense, fear, tension, terror, panic, horror*.

Concerning the conceptual delimitations between emotions and moods, we will refer to a few elements which specify the two types of affective processes. As Cropanzano, Weiss, Hale & Reb (2003) put it, it is not the *intensity* or *duration* of the affective experiences that differentiate the emotions moods: moods are, indeed, states of long duration, but emotions as well can prolong to a longer period of time, if the person, by reflecting and reactualization, maintains the active emotional state/mood. A delimitation criterion, more important than the intensity or duration, is represented by the *level of activation*. Emotions are defined by a level of specific activation: a specific stimulus (external or internal), activates (wakes) "something" in us, releases a certain type of emotional response. Emotions are always released in relation with a specific object or a well defined event: "when we say that we are, say, afraid, it implies being afraid of someone or something (Cropanzano et.al., 2003, p.843). Real examples can go on: you are proud of your performance or you enjoy a professional success, you are angry or furious with your boss, you are ashamed with your own behaviour, you are afraid you will be fired, etc.

Moods, on the other hand, represent activation modalities without specific object, they are affective experiences with a level of diffuse activation, disconnected from further causes. Thus, the essential difference between emotions and moods is represented by the type of activation: specific (in case of emotions) versus diffuse (in case of moods). The key element when it comes to emotions is "living" generated by the relation with a well defined object (internal or external).

The specific of the simple affective processes as reported to the complex affective processes lies in the emotional directional experience, oriented towards a stimulus. As the complexity level and organization of affective life grows, the patterns interaction makes it difficult the identification and naming the factors responsible for the apparition of complex affective states. It is easier to become aware and specify an emotion cause than our moods, feelings or passions multiple causes:"moods are affective states divorced from their antecedents. The subjective affective experience contains no object or event. Hence, as one moves up the hierarchy the object of emotion is lost. What remains is the undirected affective experience" (Cropanzano et.al., 2003, p.843).

Following the same line of ideas, Brehm (1999) underlines that between emotions and moods there are no conceptual clear distinctions made and he suggests, as a differentiating element, the *degree of awareness* which the emotional feelings have: emotions are defined by a higher level of consciousness as compared to with moods and affects. Being released in relation with a well defined stimulus, emotions are, generally, conscious. As Brehm (1999, p.20) puts it, "emotions function as emotions (urge-adaptive responses) only to the extent that they are felt consciously". Yet, there are very intense emotions, which surpass the person's ability to administrate from the affective point of view, or the capacity to accept consciously (for example, the feelings generated by the traumatic events).

Depending upon criteria as duration, intensity, level of activation and the degree of consciousness, *emotions* are viewed as short duration feelings, intense, with a high specific level of activation (precise orientation towards a stimulus) and a higher degree of consciousness, as compared to affects or moods. The emotional episodes are short duration answers at specific stimuli; intensity of an emotion is dependent both of the intensity and stimulus significance and the subject's sensitivity (capacity of affective vibration).

Moods are generalized, difuse, relatively stable affective living moments with moderate intensities. Mood represents a subjective modality of activation without an object, meaning that the situation or cause which determines it is not, generally, noticed by the one who is living it (it is characterized by a reduced level of consciousness). Although moods can have a well determined cause, generally, they are not connected to a certain object, but especially by a series of events. Moods are difuse states, with a prolonged affective tonality, at their origin being a multitude of subjective and objective factors, their interaction effects being more difficult to isolate and study.

By repetition, the same type of emotions create affective patterns (or distinct emotional models), which are subsequently activated, selectively, compared to the stimuli (Izard, 1991). The person's emotional answers at the external environment demands are influenced by the affective patterns already formed and, in a certain degree, this emotional stability predicts, under familiar circumstances, the type of emotional behaviour. More concrete, the previous experience and repeated emotions lived by a person in the relation with a stimulus (another person, a situation/circumstance/, an activity) lead to forming an emotional pattern which predicts the relatively constant character of the emotional behaviour and the repetition of the same types of emotional answers.

The frequent living of positive emotions at the labour place leads to creating a positive mood, meaning it stabilizes some elements of the emotional experience. In the same way, the very stressing circumstances, conflict ones, negative feed-backs received at the labour place or repeated living of negative emotions, contributes to consolidating unpleasant emotional sequences and structuring the negative moods.

In what concerns the role of moods in the professional activity, the researches results in the field of organizational psychology showed that *positive moods* are associated with the growth in the level of creativity, of cognitive flexibility, of labour productivity and professional satisfaction, with communication moods and negotiating skills, etc. Although some authors consider that *negative moods* favour more efficient cognitive processes of the information and more realistic perceptions, the great majority of experimental studies show the disturbing effects of negative moods on the professional activity, such as: diminishing the level of performances, insatisfactions in the labour process, reduced emotional commitment, the tendency of leaving the organization (the employees' wish to change the place where they work).

The *positive moods* sustain energetically, direct behaviour and get into the structure of positive attitudes towards the professional activity. Yet, the prolonged hedonic tone, although facilitates some tasks, especially those which involve creativity, may inhibit performance in the strict activities, where concentration, planning and effort are necessary. Exaggerate, unrealistic optimism, cannot sustain the effort which must be done in order to offer solutions for the difficult problems or to reach the challenging tasks/objectives.

Theories on the genesis and emotions procesuality have evolved in more directions: 1. accentuating the role of neurophysiological factors in determining the apparition of emotions (*biological theories*); 2. acknowledging the affective evolution function (*theory of the affective primacy and the theory of the twin-pathway*); 3.underlining the significance of cognitive factors in releasing emotions and interpreting the emotional experience (*cognitive theories*); 4. reevaluating the unconscious, focusing the stocking mechanisms and selective activation of the affective contents (psychodynamic theories); 5 highlighting the influence of genetic factors in emotions filogenesis and onthogenesis (*evolutionist theory*); 6.acknowledging the role of interactions between emotions and reasons (*humanistic psychological theories*).

In present, the idea of the interaction among all these factors is admitted (hereditary, neuro-physiological, psycho-dynamic, affective, cognitive) in releasing the emotional experience. All the above mentioned theories have contributed to building a conceptual frame which is relevant for the emotions analysis, so that, in present, the emotions study and investigation are centered on a few more important coordinates, depending on the basic components of the emotional processes: a) *cognitive component* or rational assessment (interpretation of stimuli significance); b) *behaviouristic component* (behaviouristic line, in terms of the orientation towards the stimuli and towards the involvement in activity); c) *expressive component* (emotions expressivity: intonation, change in voice tonality, body movements, gestures, face expressions, pose, etc) and e). *subjective component* – “*subjective living/experience*” (as a product both of cognitive assessment and of affective assessment, depending on the information processing at the level of unconscious mechanisms or at the level of rational structures). Although the internal congruence of the affective experience designs the unity between these elements of the emotional process, the components described above do not express themselves simultaneously, they can function in a dissociated manner (for instance, dissociating the feeling of expressive conduct).

2.1. Concept of emotional intelligence

The affective dynamics offer the energetic support necessary to release the unfolding of the activity and behaviour oriented to the purpose, making, every moment, a mixture of extremely diversified states, functioning as self-regulator and self-motivation, which vary, as intensity and tonality, from one person to another. The over-ordered components of the affective life are represented by concepts and personal skills such as: emotional intelligence, affective maturity, empathy, ability to administrate the emotional resources, ability to experiment the state of feeling well, the feeling of personal value (tied to the trust in one’s own forces), etc.

In modern psychology, a new concept appeared which gains wide recognission in the research field, that of “emotional intelligence”, which creates the concept of unity between reason and feeling, based on the idea that lived experience is a mixture of ideas and feelings, which cannot be diminished in a simple manner to the cognitive or affective notion.

At the beginnings of experimental psychology, the research data have supported the position by which affectivity was defined as opposed to reason (right hemisphere corresponding to affectivity, left hemisphere as an area specialized in cognitive functioning). In present, with the

help of modern technologies, we can catch the relation between neurophysiological mechanisms of the emotional processes and cognitive ones, which can simultaneously transmit information at cortex level. More than this, it was demonstrated that the speed with which the information with affective value is transmitted is superior to the circulation speed of impulses responsible for the cortical activation level growth involved in cognitive processing (Goleman, 2001).

Emotional intelligence (EQ) is complementary to academic intelligence (IQ). At the beginning of the experimental approach of the reasonable life it was supposed that IQ is a genetic datum, which cannot be modified along man's life, thus success or failure in life is determined by this intellectual skill. Gradually, the role of learning was understood, and later the effect of "emotional intelligence" meddling, described as the ability to control emotional life, to become aware of the affective feelings and to express them along the context.

Goleman (2001) considers that the fast rhythm in which all societies developed in the last centuries, did not action in the benefit of affective structures, problems of mankind in the postmodern society are preponderantly of emotional nature, a great part of the existing conflicts have their origin in the contradictions at the feelings level. People's emotions do not function in the same efficient way anymore as in the past, because the information streams are too big and unpredictable as compared to the person's immediate reaction possibilities: "while our emotions were intelligently guided in the long period of evolution, the new today's civilization realities appeared so rapidly, that evolution cannot keep pace with what is happening around" (Goleman, 2001, p.19).

Maslow (1962) highlights the limits of rational knowledge and advance the idea of a unifying synthesis intervention between the rational knowledge and affective feeling/living, turned today into the concept of emotional intelligence. In this sense, it is referred to the type B knowledge, contemplative, affective-intuitive and type-D knowledge, rational, practical, purpose-oriented. The impersonal, objective approach, distance to the object, limits the understanding of phenomena essence, while combining intuitive-affective knowledge with the rational-logical one facilitates the process of knowledge.

Emotional intelligence has compensatory effects, in the sense that it substitutes and even surpasses by its positive effects, the academic intelligence. Pro-active persons, with a stable emotional system, have adequate emotional reactions, they adapt better to the circumstances with a heavy emotional burden, the energetic reorganization is faster. Awareness, recognition and surpassing emotions capacity leads to performances growth in the learning and productive activity, in obtaining positive results in the professional life and within social relations. The level of emotional intelligence is related to the dynamic of the process of self-assessment, which gradually leads to creating the feeling of identity and dignity, of self-respect and to shaping a self unitary concept, consciently defined.

Synthesizing the defining coordinates of emotional intelligence, described in the speciality literature (Mayer, Salovey, Caruso, 2002; Goleman, 2001; Roco, 2001) we remark that the emotional intelligence (IE) was defined depending to the capacities or components which it involves, among which more relevant are the following:

- ✚ awareness (understanding, knowing) the affective states even in the moment when they are produced;
- ✚ identifying, by introspection, the real factors which determine the positive or negative affective feelings;
- ✚ expressing by verbal and non-verbal means the emotional feelings;

- ✚ anticipating the affective behaviour depending on the circumstances, knowing the consequences of emotions in the behaviour plan;
- ✚ affective self-control and relatively coping to the external stimuli with an important emotional burden;
- ✚ adequate answers at unusual, critical, stressful situations;
- ✚ rapid adaptation to new situations; capacity of surpassing the critical emotional phases/states, to reorganize after crisis moments;
- ✚ capacity to admit and repeat the positive experiences which stimulate personal evolution; optimism; the need to self-accomplish.

Optimism is, the same as empathy, a basic component of emotional intelligence. Optimism is conceived as the ability to experiment the state of feeling well, of expressing the ideas and feelings in a constructive, positive manner, the capacity to persevere in attaining the purposes, even under difficult circumstances. In Srivastava, McGonigal, Richards, Butler & Gross' (2006) opinion, optimist persons have positive expectations about the future (a bright perspective on life) and frequently experiment positive emotions; under conflict circumstances, optimist persons search for constructive modalities to solve the conflict.

The theoretic researches results and experiments promote the idea that subjects with emotional intelligent register more success in the professional activity, have prompt reactions at the daily demands, higher adapting capacities to the environmental changes, have the ability to establish and maintain emotional contacts, to exteriorize affective states, have a live contact with their own emotional life, in other words, they are in an intense process of cognition and self-assessment. Emotional intelligence, affective maturity, empathy, concept of unitary self, extension of the level of awareness, all these concepts define the emotional condition of the autonomous subject, integrated in contact with himself/herself, capable of unfolding efficiently the activity in a social, dynamic environment, ever growing change, as the organizational climate is.

3. Emotional processes at the level of organization group

The main psychological processes which appear at the organizational group level are: emotional activation, emotional contagion and attributing processes.

Kiesler (1973) maintains that within the group there are high levels of emotional activation, generated by the multitude of interactions among group members and the labeling or interpretations of others' behaviour, depending on the expectations, needs to control or affiliation, etc. Group emotional experiences are different from the feelings which the subject has outside the relations with the others. One of the important characteristics of emotional life is made of emotions communication (open expressing emotions, expressive behaviour) which offers permanently a feedback to the other participants and regulates affective changes among them. At the group level emotional contagion phenomena are produced, by which particular individual feelings/living states are influenced by emotional transactions among the group members. Emotional contagion represents one of the psychological mechanisms by which leaders influence the members of the organizational group. Bono & Ilies (2006) maintain the idea that leaders use emotion, consciously or not, in order to influence their supporters/followers. If leaders are aware that their emotional expressions have a direct influence on the emotions of the group members, are even more motivated to elaborate their speech so that they send them emotions. Leaders capable of obtaining emotional answers from their employees have bigger chances to accomplish the desired organizational changes. Leadership theory shows that charismatic leaders speeches are energetic, passionate and emotional. In their declarations they make use of rhetoric techniques such as imagistic,

metaphor and stories, by which they send positive and optimistic images of the future, aiming to activate the motivational mechanisms of the group members (interests, aspirations, expectations, etc.). The political world offers a lot of examples on this matter: one of the modalities in which political leaders influence their followers is by illustrating a positive image of the future and promises for accomplishing some changes that electors expect.

Within the organizations, due to the position with authority which leaders have in the organizational hierarchy, positive or negative emotions expressed by the leaders influence group members' emotions and moods. Emotional contagion has different effects on organizational behaviour which the employees have, depending on the nature of the emotions by the leaders. Thus driving to or facilitating positive emotions in employees' attitudes leads to more of the different types of behaviour results associated with efficient leadership: professional motivation growth, creating a pleasant labour atmosphere, open organizational communication, etc.

By emotional contagion, negative emotions lived by the leader influence, as well, emotions lived by the employees; the state of mind experimented by the leaders may be transferred to the members of the group. Even if the members of the organization can be stable from the affective point of view or with a very good level of emotional involvement, an anxious leader, for example, situated in an authority position, may disturb individuals' emotions (the former's anxiety may change the group emotions).

Bono & Ilies (2006) wrote a series of studies aiming to examine leaders' emotional positive expressions effect on the group members' mood and perception and noticed that positive emotions expressed by the leaders have a direct positive influence on the group mood. Even in short and accidental interactions between leaders and the group/followers, leaders' positive emotional expressions influence the mood/state of mind, as well as their emotional answers and attitudes. The two authors remarked the existence of some consistent and significant bonds between charisma and leaders' positive emotional expressions: charismatic leaders transmit more positive emotions than the less charismatic leaders (persons who got higher qualification grades on the scale of charismatic leadership expressed more positive emotions than those qualified as less charismatic). Group members interpret leaders' positive emotional expressions as signals of an open, willing to cooperate attitude. Individuals may think that "a leader who expressed enthusiasm is either (a) truly passionate about their work, making them a more committed leader, (b) a nice, friendly person who would be more likely to treat employees with respect, or (c) more likely than a less enthusiastic leader to take an optimistic approach to solving problems and be more developmental than critical when problems are encountered" (Bono & Ilies, 2006, p.331).

By emotional contagion and empathy, emotions are transmitted from one person to another. Processes which interpret the emotional expressions that the others show are frequently and naturally produced. Exteriorizing the emotions which one person lives evoke certain thoughts, feelings, actions in those who notice them. To those emotions internal causes are attained (mood/spiritual causes) or external (situational).

Llu, Karasawa & Weiner (1992) made a series of experiments aiming to identify the connections which people make about the causes of positive and negative emotions. The performed experimental models had, as main objective, the assessment of the cognitive components: what individuals believe about the causes of emotions (awareness for the causes of emotions). The results obtained showed the fact that that people assign, generally, the positive emotions a multiple causality, and the negative emotions a limited and more precise causality. People can identify more precisely the causes of the negative emotions (in

themselves or the others), than the causes of positive emotions. The explanation would be that the negative emotions demand a faster information processing and a rapid identification of the cause to lead to an efficient coping of the situation and go over the obstacle.

People interpret constantly the emotional expressions of the others around them and use the displayed emotions as clues or signals, which guide them in the interpersonal relations. Karasawa (1995) maintains that one's own negative emotions are assigned more to the situations than the moods, while the others' emotions are assigned equally to the situations and moods.

People have the tendency to show helping behaviour and support if they assign the other negative emotions to a circumstance which they translate as bad. For example, people have the tendency to help and support persons who face and go through, due to unhappy circumstances, negative emotional experiences, but avoid to manifest empathy and help to the persons who frequently have a depressing mood. In other words, people assign negative emotions displayed by the other an objective cause (for example, a traumatic event, an unpleasant circumstance) show more empathy and support than under the circumstances to which they assign the other's negative emotions a subjective cause (a way of being, a mood).

Under the circumstances in which the observed person's negative emotions are assigned to some objective situational causes (losses, traumas, etc.), the observer's emotional reactions are empathic, intending to help and support. When the observed person's negative emotions are assigned to some subjective causes (pessimism, a depressive mood, tendency to re-live unpleasant events), emotional observer's reactions are neutral or indifferent, they diminish considerably the intention to support the other, even more, the tendencies of avoiding the other or rejection for the person labeled as "depressive" appear.

Dealing with the cause of emotions apparition at the labour place, the generating factors have their origin in the subject, in the characteristics of the activity at work as well as in the organizational environment particularities. Thus, *positive emotions* at the labour place and in the professional activity are associated with: positive self-image, trust in one's own forces, high level of personal autonomy, independence, awareness of the things well done, professional competence, needs satisfaction, recognition of the professional merits, good relations with colleagues, pleasant relations with the other and outside the organization, in the family.

Living *negative emotions* at the place of work is related with: negative self-image, fear of failure, a reduced trust in one's own forces, personal style of work under stressful conditions (pressures such as: time deadline in which an activity must be accomplished), insufficient knowledge, incomplete professional training, situations of conflict, difficult relations with the colleagues who increase the level of anxiety, personal problems which affect the working capacity.

4. Emotional Self -Control and Emotional Labour

Studies on emotions management in organizations are based upon two important concepts: capacity of emotional self - control and emotional labour.

Capacity of emotional control represents the ability to regulate our emotions ourselves, to control and adapt the emotional answers to stimuli – the tendency to influence willingly, the course of the emotions lived "here and now" as well as the way in which these are presented, expressed, exteriorized. The capacity of emotional self-control is manifested frequently in the

diversity of daily interactions and situations, whenever we regulate spontaneously or willingly our emotions and express only the socially desirable. As the emotional self-regulating tendencies are automatized, the emotional regulating behaviour becomes a common one, framed in normality, so that we rather notice the absence of emotional control in the others (such as affects, uncontrolled emotions), than the presence of self-regulating mechanisms.

Exteriorizing the emotional living in the organization environment can or cannot be in congruence with the real emotional feelings of the social actors. Emotions could be manipulated, simulated, faked, depending on the emotional self-control abilities the subject has. People can show emotions which differ from their real affective experience, from what they experience in their real life, what is authentic. The reasons for which people willingly show faked emotions, in disagreement with their real feelings and emotions, are different, from the need to maintain a positive image in the others or the desire to spare the others feelings, until the fear of the negative consequences that showing real feelings would have on the job position and social status or the tendency of avoiding the consequences on the activity or the organizational environment (for example, fear of losing the place where they work).

Employees' mechanisms of emotions control exist in any organizational environment, irrespective of the organization type (with a democrat or authoritative leadership). The differences in practicing the control rise come from the nature of the rule explicitly formulated and promoted within that organization. In the authoritative organizational environments, neutral or cold from the emotional point of view, the employees are compelled to repress their emotions or to fake them and express them as forms socially desirable, starting from the idea that showing one's emotions is a sign of weakness or it can affect in a negative way the individual position within the organization. Blocking the emotional manifestations, both positive feelings and the negative ones, diminishes the employees' spontaneity and creativity and leads to establishing formal, impersonal relations. On the other hand, in organizational environments with a democratic leadership, the focus is widely put on showing and expressing one's positive emotions, both between the members of the organization and between employees and clients.

Emotional labour, translated as "emotion while working", is defined as a manifestation of the desirable emotions during labour transactions, depending on the demands of the professional activity (Morris & Feldman, 1997). If emotional self-settling is a natural phenomenon, the emotional effort made in order to express desirable emotions in the organizational environment, that is to compel to the emotional rules imposed by the organization, does not take place as naturally. Faking and presenting unreal emotions implies a high energetic consumption, which gradually leads to emotional exhaustion or internal conflicts; these in their turn, maintained on long term, influence in a negative way the professional performance, that is, it diminishes it.

Organizations ask the employees, especially within the professions which involve dynamic interactions with the clients, to act accordingly to the explicit rules of emotional manifestations. In Morris & Feldman's opinion (1997), one of the reasons for which organizations ask emotional effort from their employees is the expectation that settled emotional expressions will increase the quality of the services. It is started from the idea that, due to the employers' adequate emotional behaviour, specifically by showing positive emotions, emotional bonds based on respect, trust and opening are established between employees and clients. The research showed that clients' loyalty towards organizations is influenced by the human relations quality: clients choose the organizations they trust for the services and products quality, but at the same time, because emotional bonds have already been created.

The organizations need to settle the employees emotional manifestations and to assure the compliance with the organizational purposes (especially with the activities which ask for verbal interactions and direct contact with the clients) is shaped in establishing some explicit emotional rules about presenting the desirable emotions, by which the communication optimization is looked for between employees and the clients who benefit from services and products. As Morris & Feldman (1997) underline, in modern society there is a rapid growth of the products and services for which the employees are asked to manifest positive emotions in relation with the clients, aiming at the potential impact of presented emotions has on the services quality and at the clients' satisfaction. The employee is compelled to control the emotional manifestations and to show positive, pleasant, emotions. Inner willful emotional self-control added an external one, an imposed demand, expressly asked and formulated by the organizational policy, to present desirable emotions.

Surviving in the social competition which exists within organizations, takes from the employees to hide their demands and suggestions of the organizational role, to compel to the rule promoted within the organizational environment, social behaviour patterns included and the emotional manifestation rules. The control set on the emotional behaviour is referred to the pressures on the employees to assimilate a certain emotional language, they must use afterwards in the relations with the clients. For this purpose, emotional skills development training-stages are made, where employees learn to express their emotions in relation with the clients.

Generally, the employees comply the organizational policy and assume a certain emotional language, meaning they express desirable emotions, even if these do not match their real, authentic feelings. The personality traits play a decisive part in it: sociable, extraverted persons, kind by their nature, do not face difficulties in expressing their positive, pleasant and desirable "emotions", when they interact with the clients, because they actually "live" them; on the other hand, for the introvert, lonely, egocentric persons, the organization emotional expressing rules can be a permanent challenge, asking a far greater emotional effort. The imposed emotional rules can generate affective dissonances: disagreements between what the employer really feels and what he "must" show according to the provisions of the organization emotional rules.

At the same time, some conflict, tense situations, such as the relation with an irritated or nervous client, in spite of the employer's kind behaviour, are difficult to administrate from the emotional point of view even for an employer with a high level of emotional self-control. Irrespective of the number of training stages the employer might have attended, during the interaction with a nervous client, who activates in the employer too a nervousness or aggressive state, the skills needed to express one's positive emotions are diminished considerably, implicitly the availability, kindness, good-will. Emotional self-settling is more difficult to accomplish under the circumstances when the employees live an affective dissonance, in the situations in which there is a conflict between what they must express (desirable emotions) and their real, authentic emotions.

As Morris & Feldman (1997) say, theorists overvalue the negative aspects of the emotional labour, insisting upon its negative and dysfunctional consequences on the employees' state of feeling well. As the two authors underline, the fact that under certain circumstances, especially when the employees express at the labour place, emotions matching their authentic feelings, emotional labour leads to favourable attitudes towards the professional activity and the positive behaviour effects, is true. Emotional labour is dysfunctional only in the measure in which the employees live an affective dissonance, a disagreement between their authentic feelings and emotions which they must show (simulate). Thus, expressing emotions asked by the nature of

the organizational role appears as dysfunctional for the individuals only in the measure in which those very emotions are in disagreement with the lived emotions.

If we mention the influence the emotions have on the professional activity, the researches results in the organizational psychology field showed that positive emotions improve the quality of the labour activity. Ilies & Judge (2005) notices that employees, under circumstances in which they experiment pleasant emotions, have the tendency to propose higher objectives and to involve in their task of work by generative and constructive modalities. Theory "*broaden-and-build*", elaborated by Friedrickson (2001), explains that positive emotions lived by the employees enlarge the relation between thought and action (tend to enlarge momentarily thought register), grant cognitive ideas plasticity and flexibility, allow the flexible data processing, leading to a creative exploration of the ideas. Positive emotions are associated with a growth in the level of creativity, spontaneity and receptivity at stimuli and facilitate the constructive and creating approach of the tasks. At the same time, the experimental researches results show that negative emotions narrow thought register and determine defensive actions (tendency to evade from the work activities or tendency to avoid tasks). Negative emotions released by people's frustration because of the needs, traumatic events or losses, is turned into emotional barriers of the activity, affect the self-image and diminish individual performances.

5. Conclusions

Affective dynamics, understood as an assembly of successive re-balancing, restructuring and reactivation stages of the emotional resources, shape and influence a whole range of behaviour manifestations in the employee: decisional behaviour, communication and relation skills, work style, activity performance and efficiency, mental changes and restructures (assuring coherence, unity and at the same time cognitive structures plasticity in the unlimited diversity of problem situations.). All the qualities of a human action (reason/rationality, ethics utility, efficiency, inventivity, etc.) are influenced both by the cognitive patterns and the availability to operate data flexible manner, and the subject's emotional experience as reported to certain categories of stimuli. In the organization activity, the employee confronts with a multitude of problematic situations, and to solve them he activates, at the same time, operating, conceptual, relational availability and his emotional resources.

Nowadays, the preoccupation for the emotional life quality is present at the level of the developing strategies: management of the total quality, conflict negotiation techniques, communication efficiency increase between work-teams, professional merits revaluation and recognition, increase at the level of professional performances, etc.

Organizational behaviour and professional activity are, in the same measure, supported, released and goal-oriented, both by cognitive factors, by the personality traits and the motivational structures, and the emotional processes.

At the interpersonal level (social), emotions management is aimed at settling the emotional changes (transactions) among the employees, among leaders and employees, among employees and clients. At individual level (personal), emotions management designs the person's ability to administrate emotional resources in order to adapt in a better way to the organizational environment and the demands of the professional activity. The main resources necessary for the emotions management, both at personal level and interpersonal level, are emotional intelligence, emotional labour and emotional self-control capacity. Also, in order to administrate emotions in organizations it is necessary to know the main emotional phenomena which appear within organizational group: emotional activity, emotional contagion and assigning processes.

Because emotions play an important part in organizations, efficient leaders are interested in aspects of theory and practice connected to the factors which improve the employees' emotional condition. By their emotional behaviour and by affective contagion, leaders can influence, in a positive or negative way, employees' emotions. In order to obtain the organizational objectives, some leaders use emotional settling strategies (by affective contagion) or control strategies, the type of explicit emotional rules promoted inside the organization.

Positive emotional experience at the work place, positive feed-backs received, labour revaluation and recognition of the professional merits by the organization leaders, employees' satisfaction and state of feeling well are decisive factors to increase the organization efficiency.

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The Investment Potential and Risks proper to Investment Activity within the Economy of Republic of Moldova

Rodica HÎNCU

hincu@ase.md

Ana SUHOVICI

annasukhovich@mail.ru

Mariana BUNU

marianabunu@yahoo.com

Ana GUMOVSCI

anagumovschi@yahoo.com

Daniela DASCALIUC

danieladascaliuc@mail.ru

Academy of Economic Studies of Moldova

Abstract

The paper is dedicated to the discussion of investment as a main promoter of economic development in conditions of risk and uncertainty. In the context of the topic of research this article has as particular interest the analysis of the performances and potential of the economy of the Republic of Moldova in attracting FDI, the analysis being based on focused on investment potential and investment risks of national economy. Finally, the paper concludes with reflections on the general conditions to attract investment into the economy of the Republic of Moldova. The paper was written in context of studies made within the research project on topic "Survey on investment risks proper to the real sector of the economy", within the State Program realized with the support the Academy of Science of the Republic of Moldova.

Keywords: investment, investment potential, investment risk, foreign direct investment, investment environment, investment incentives, country risk, sector risk, state investment policy, investment performance, investment flows.

1. Introduction

In view of all world renowned experts, the most important means of *economic development and growth* is *the investment*. Indeed, a stable developed economy can not be conceived without the support of large amount of investments in all fields: economic, social, cultural, etc. This statement would be imperfect without taking into consideration *the risks proper to investment activities*.

2. The role of investment

It can be said that the link between investment and economic growth is ambivalent: on the one hand, investment affect economic growth by their *volume*, on the other hand, growth is influenced by the *quality* of made investments, which is an aspect that is reflected in their economic efficiency.

Thus the role of investment needs to be addressed in the context of the interdependence of branches and sectors, between production and consumption, between supply and demand of various existing markets and new markets which asks for their “right to live”.

One of the primary tasks in order to attract investment is the existence or creation of a *favorable investment environment*, including:

- ✚ long-term macroeconomic stability, stability of legislation that will ensure investors' rights and clear rules on investment activity;
- ✚ development of the business infrastructure, including financial services, legal frame etc.;
- ✚ other components, including transparency in the work of state bodies, confidence in business environment etc.

3. The investment potential of the economy of Republic of Moldova

The amount of foreign direct investment (FDI) is considered to be one of the main indicators which confirm the success of economic policies and prospects of a country. When FDI amount is increasing, this may encourage other foreign investors to allocate new resources in that economy. Thus, after a certain threshold of mistrust is overcome, FDI becomes a major driver for a qualitative economic development.

Republic of Moldova is considered as a country that compete to attract foreign direct investment flows, which are important not only as resources of currency, but also as a combination of experience, knowledge, management practices, marketing innovations and technological know-how, additionally stimulating domestic capital investment.

The revival of the national economy, which has been observed since 2000, with few exceptions, has been accompanied by visible increasing of FDI flow. FDI inflow amounted to €484.2 million in 2008 or €149 million (44.5%) more than in 2007. FDI represented 11.8% of the country's GDP in 2008. Cumulative total FDI at the end of 2008 reached approximately €1747.7 million. Presently, Moldova enjoys investments from 86 countries with the major FDI sources being the EU-27, the Commonwealth of Independent States (CIS), USA and Canada.

According to the National Bureau of Statistics, the Netherlands is the largest investor with about 21% of total amount of FDI, followed by Russia with 10.6% Italy - 10.2%, Cyprus - 10.0%, Spain - 7.8% etc. (see figure 1).

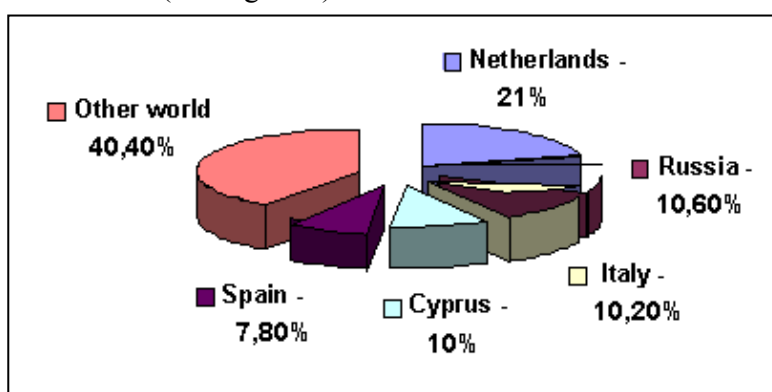


Figure 1. The structure of investment flows in the economy of Republic of Moldova by investing countries

Source: adapted by authors on data from www.miepo.md

Regarding the flow of foreign investment into the country, at international level, the performance of Republic of Moldova is quite ambiguous. On one hand, the amount of FDI to GDP, Moldova remains at relatively high rates, but on the other hand, relatively high share of

FDI in GDP is explained by the volume rather low of GDP than the nominal volume of FDI. FDI per capita in Moldova reached the level of USD 116.4 for 2007, relatively close to CIS countries. But this indicator is very small compared to the new EU member states, Romania and Bulgaria, where the level of foreign investment per capita was, in 2006, 529.2 USD and 672.3 USD respectively. In the context of the topic of this article "The investment potential and risks proper to investment activity within the economy of Republic of Moldova" it presents a particular interest the analysis of the performances and potential of national economy in attracting FDI, the analysis being based on calculating the following indicators: Inward FDI Performance Index and Inward FDI Potential Index.

Under the *Inward FDI Performance Index*, countries are ranked according to the amount which a host country receives inward FDI relative to its economic size. Countries, with an index with over-unitary value (>1), attracting foreign direct investment than expected, as compared with their economic power, a sub-unitary value indicating, respectively, that attracting FDI is below expectations and a negative value indicates that foreign investors take away their investments during the period.

Inward FDI Potential Index classifies countries according to their potential to attract direct investment. The UNCTAD Inward FDI Potential Index is based on twelve economic and structural variables. This indicator includes variables, considered to be key factors for attracting FDI, as:

- + GDP per capita,
- + the rate of growth of real GDP,
- + the share of exports in GDP,
- + share of R&D expenditures in gross national income,
- + country risk,
- + inward FDI stock as a percentage of the world total, etc.

According to those indicators, Republic of Moldova belongs to the category of countries with *low economic potential* and a *high performance* in attracting FDI. Thus, for 2007 the FDI Performance Index showed a value of 2.993, ranking Moldova on 28 position of 141 countries that were analyzed (see table 1), and the FDI Potential Index registered the 0.162 value, thus registering Moldova on 82 place (see table 2).

Table 1

Country rankings by Inward FDI Performance Index, 2004-2006

Rank	Economy	Score	Rank	Economy	Score
1	Luxemburg	17.476	29	Congo	2.844
2	Hong Kong	9.630	30	Chile	2.817
3	Surinam	9.454	40	Colombia	2.542
4	Islanda	7.715	50	Ecuador	2.114
5	Singapore	7.622	60	Albania	1.737
6	Malta	7.401	70	Peru	1.450
7	Bulgaria	7.000	80	Madagascar	1.278
8	Iordania	6.357	90	Switzerland	1.044
9	Estonia	6.288	100	Norway	0.771
10	Belgia	6.122	120	South Africa	0.437
20	Guyana	3.936	140	Yemen	-0.520
28	Republica Moldova	2.993			

Source: adapted by authors on World Bank data

Table 2

Country rankings by Inward FDI Potential Index, 2004-2006

Rank	Economy	Score (0-1)	Rank	Economy	Score (0-1)
1	United States	0.623	80	Viet Nam	0.166
2	Singapore	0.459	81	Egypt	0.166
3	United Kingdom	0.445	82	Moldova, Republic of	0.162
4	Canada	0.436	83	Nigeria	0.161
5	Luxembourg	0.427	84	Albania	0.160
6	Germany	0.426	85	India	0.159
7	Norway	0.422	86	Bolivia	0.151
8	Sweden	0.422	87	Namibia	0.151
9	Qatar	0.417	88	Peru	0.149
10	Iceland	0.407	89	Jamaica	0.148
20	Taiwan Province of China	0.367	90	Uruguay	0.146
30	China	0.307	100	Indonesia	0.133
40	Libyan Arab Jamahiriya	0.269	120	Papua New Guinea	0.108
50	Brunei Darussalam	0.237	130	Rwanda	0.084
60	Bulgaria	0.204	140	Congo, Dem. Rep.	0.041
70	Brazil	0.184	141	Zimbabwe	0.021

Source: adapted by authors on World Bank data

The UNCTAD advise to combine the use of the Inward FDI Performance Index and of FDI Potential Index with the following matrix (see table 3).

Table 3

Matrix of ranking countries by Inward FDI Performance Index and of FDI Potential Index

	High FDI Performance	Low FDI Performance
High FDI Potential	Front-runners	Below potential
Low FDI Potential	Above potential	Under Performers

Source: adapted by authors on World Bank data

- ✚ front runners are economies with high FDI potential and performance;
- ✚ above potential are considered economies which possess low FDI potential but strong FDI performance In this category there are the vast majority of **poor countries without a strong industrial basis and without stimulating structural factors, but have been successful in attracting FDI**;
- ✚ below potential are regarded are economies poorly performing in terms of FDI and high FDI potential. In this category, generally, are included developed or relatively industrialized countries, which have not registered significant inflows of foreign direct investment, according to their economic potential, because of unfavorable or traditional investment policies;
- ✚ under-performers are economies with low FDI potential and performance. This group include mainly poor or unstable economies, which, for economic reasons or otherwise, does not enjoy the benefits of international production as a growth factor. Thus, the matrix of classification of countries by FDI performance index and FDI potential index takes the following form (see table 4):

Table 4

Matrix of countries classification by FDI Performance Index and FDI Potential Index

	High FDI Performance	Low FDI Performance
High FDI Potential	Australia, Bahamas, Bahrain, Belgium, Botswana, Brunei Darussalam, Bulgaria, Chile, China, Croatia, Cyprus, Czech Republic, Dominican Republic, Estonia, Finland, Hong Kong (China), Hungary, Iceland, Ireland , Jordan, Kazakhstan, Latvia, Lebanon, Lithuania, Luxembourg , Malaysia, Malta, Netherlands, New Zealand, Panama, Poland, Portugal, Qatar, Singapore, Slovakia, Slovenia, Spain, Sweden, Trinidad and Tobago and United Arab Emirates.	Algeria, Argentina, Austria, Belarus, Brazil, Canada, Denmark, France, Germany, Greece, Islamic Republic of Iran, Israel, Italy, Japan, Kuwait, Libyan Arab Jamahiriya, Mexico, Norway, Oman, Philippines, Republic of Korea, Russian Federation, Saudi Arabia, Switzerland, Taiwan Province of China, Thailand, Tunisia, Turkey, Ukraine, United Kingdom and United States.
Low FDI Potential	Albania, Angola, Armenia, Azerbaijan, Bolivia, Congo, Costa Rica, Ecuador, Ethiopia, Gabon, Gambia, Georgia, Guyana, Honduras, Jamaica, Kyrgyzstan, Mali, Mongolia, Morocco, Mozambique, Namibia, Nicaragua, Nigeria, Republic of Moldova , Romania, Sudan, Tajikistan, Uganda, United Republic of Tanzania, Viet Nam and Zambia.	Bangladesh, Benin, Burkina Faso, Cameroon, Colombia, Cote d'Ivoire, Democratic Republic of Congo, Egypt, El Salvador, Ghana, Guatemala, Guinea, Haiti, India, Indonesia, Kenya, Madagascar, Malawi, Myanmar, Nepal, Niger, Pakistan, Papua New Guinea, Paraguay, Peru, Rwanda, Senegal, Sierra Leone, South Africa, Sri Lanka, Suriname, Syrian Arab Republic, TFYR of Macedonia, Togo, Uruguay, Uzbekistan, Venezuela, Yemen and Zimbabwe.

Source: adapted by authors on World Bank data

We wonder: what conclusions can result from this analysis? For countries with higher performance in terms of FDI attracting and with high potential, which wish to remain important recipients of FDI, the issue remains the same - *to maintain countries' competitiveness in attracting FDI*. Under-performing economies will need to improve the investment climate and countries that oscillates between these ones and the *above potential* ones (the example of *Republic of Moldova*) will have to work hard to build quickly a *competitive potential to attract investors*.

The investment potential of the Republic of Moldova should not be ignored, this have had increased significantly in the last 3-4 years due to the foreign currency transfers made by Moldovan citizens working abroad. The 2007 year was marked by a massive inflow of foreign currency, fact that created difficulties on the financial market. So, investments than where expected occurred in an unprepared economy. As a result, the national currency appreciated by the level of 1999 year. The incapacity of the economy to absorb the financial resources available in the economic system imposed National Bank of Moldova to make unprecedented massive sterilization.

Another problem is that these financial resources are of unsatisfactory financial quality, being dispersed, oriented for consumption or saved under conditions that prevent their capitalization and their transformation into resources for investment lending. As local investment will focus towards the sphere of production, we expect to increase overall productivity, fact that would be reflected in growth of revenues, real wages etc.

4. Major investment risks in the economy of the Republic of Moldova

Investment issues it is necessary to analyze together with the *risk* phenomenon. Risks which are facing any investor are often highly complex, including investors who invested in Moldova, and for those who want to invest into national economy. Insufficient knowledge of risks, their wrong assessment, lack of adequate protection against risks, etc. may affect,

directly, the decision to invest and the outcome of investment activity. Of the many classifications respectively, types of investment risks, which are provided in specialty literature today (see the works of authors: Dunning, Ghoshal, Eaker, Fabozzi, Grant, Hibbert etc.) and investment practice, we believe appropriate their research in terms of levels of perception, which involves splitting the investment risk on the following categories:

- ✚ global market risk;
- ✚ country risk;
- ✚ regional risk;
- ✚ industry risk;
- ✚ project risk .

However, of these, we consider that the most relevant is the **country risk**, which includes all the risks specific to economic and social activities functioning in a national sovereign and independent frame, where there where applying own policies, decisions and strategies. In this category fall: government policy on the liberalization and restrictions on operating the business; flow and structure of foreign trade; external debt service ratio; the current account deficit and external payment rates compared with foreign reserves; the price control policy and allocation of resources; the rate and structure of the budget deficit compared to GDP and inflation etc.

Often, potential investors have no relevant information on investment opportunities in Moldova, the national economy being represented by several sectors such as agriculture, industry, construction, trade, transport, communications, and financial intermediation services and others. One of the particularities of investment processes in the local economy is considerable differentiation in the volume of allocated investments in the respective sectors, the pace of economic development of these sectors are different from case to case. In this context, analysis of the industry risk gets a major runway in investment decision. If we analyze the contribution of agriculture and industry in GDP formation (see figure 2), then we can say that the areas mentioned have a significant contribution, their share being 23% and 49%, respectively.

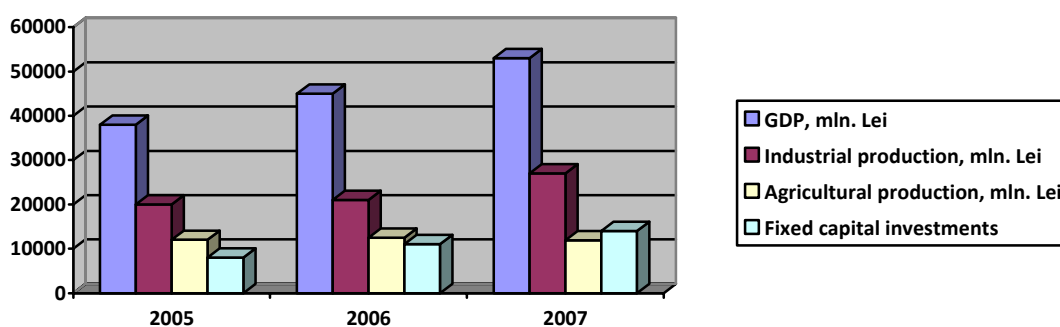


Figure 2. Structure of GDP by economic activities, mln. lei

Source: Reports of the National Bureau of Statistics of the Republic of Moldova

However, in last years, investors have actively placed capital in manufacturing, transport and communications, real estate, wholesale and retail trade (see figure 3). These sectors, being the dynamic pole of investment activity, represent more than 70% of total investment in fixed capital; the share of these areas to GDP formation is much lower than their share in investment.

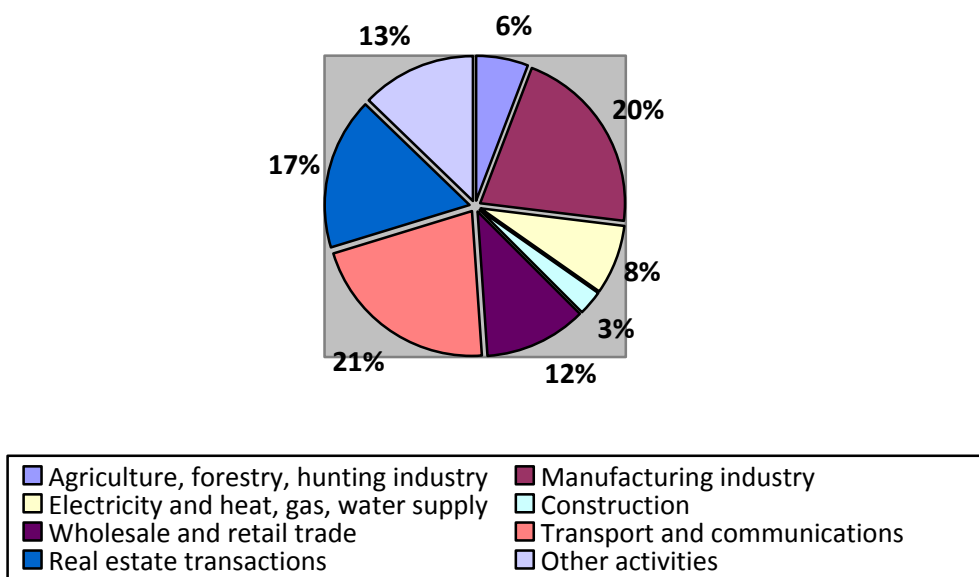


Figure 3. Structure of fixed capital investments by branches of national economy (year 2007)

Source: Reports of the National Bureau of Statistics of the Republic of Moldova

Analyzing the structure of FDI by sector (see figure 4), show that the primacy is held by wholesale and retail trade, manufacturing and energy sector, which contributed with almost 65% in total FDI amount in the national economy.

The capital accumulation process focused on the most efficient and competitive segments of the economy. The most unfavorable situation has created for investment in agriculture, which is a traditional activity for Moldova, being the main producer of raw materials for manufacturing and, in fact, occupies a leading position in the structure of national economy.

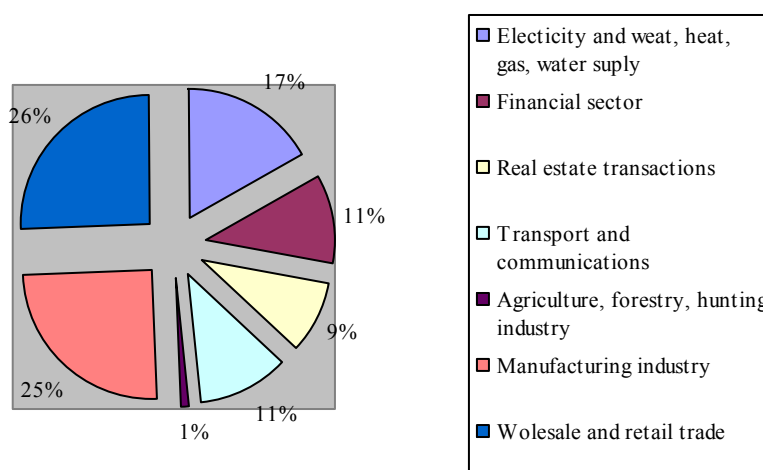


Figure 4. Structure of FDI by branches of national economy (year 2007)

Source: Reports of the National Bureau of Statistics of the Republic of Moldova

The level of directed investments in agriculture sector is lower than the volume of agricultural production. To create a modern agriculture, it is necessary to increase the volume of investment, especially for procurement of agricultural machinery, rebuilding objects of the feed, animal health and training, establishment of multi-annual plantations of vineyards and

orchards and other objects of the countryside. This will ensure the possibility of using modern technologies to increase and the industrialization of agricultural products.

In substance, the agricultural sector is not a priority for foreign investors, because the status of productive assets and scope of the law are not beneficial. Moreover, the general economic situation of this branch is considered unfavorable.

It is well known that the National Strategy for investment attraction and export promotion for 2006-2015 years does not specify certain priority areas for investment, which are addressed in the following criteria:

- ✚ potential of penetration foreign markets,
- ✚ the possibility of substituting imports,
- ✚ the competitiveness of goods on foreign markets,
- ✚ efficiency obtained by providing a high added value,
- ✚ the presence of the multiplier effect.

We believe that agriculture must be one of the priority branches to attract investment, given the demand for organic products shown by European consumer market. Some advantages which are characteristic to this branch refer to the existence of traditions and knowledge in the area, skilled and relative cheap labor, fertile land, etc. At the same time, specific of farming in national economy involves many *risks*, in particular those related to weather conditions.

5. Investment incentives as a tool to reduce investment risk.

Among the techniques of attracting foreign investment a distinct place, although quite controversial, takes incentives. Investment incentives take the form of any measurable economic advantage granted to certain categories of firms with the purpose to induce the level of a certain behavior, desirable from the perspective of the host country. These include specific measures to help the increase of the rate of return on an investment project or to level and / or redistribution, in a certain measure, of possible risks specific to new target investment.

Being an instrument of the investment policy in order to attract investment, investment incentives have a variety of forms. Practice shows that monetary incentives may be direct (financial) or indirect (fiscal). There are also measures of non-monetary form, which can be considered as incentives. Financial incentives involve the transfer of money directly from the state by companies to finance a share of the investment project and the most common are government grants, subsidized loans, insurance at preferential rates.

Tax incentives operate through the tax / duty system and offers benefits in the form of tax cuts, that otherwise would be payable. In field of investment stimulation is expressed a preference for direct incentives (grants, subsidies, budget allocations) as opposed to exemptions or reductions of taxes (fees), argument being the transparency. However, some authors consider that the true cost of special tax incentives may be lower than the equivalent of financial incentives, while most tax incentives benefit those investors who eventually recorded profit on the investment is not wasted in vain.

Developed countries tend to rely on a combination of financial and tax incentives. In the Member States of the European Union and the U.S. investment incentives take form, generally, of financial one, the most common being direct subsidies. By contrast, developing countries are more willing to provide tax incentives, largely due to lack of financial possibility of providing grants or loans. The tax incentives in the category that includes reductions / exemptions from taxes are favored by developing countries in Asia, Africa and some countries in South-East Europe.

In Republic of Moldova, attracting investment is a key objective of the state investment policy. In this respect, some measures have been taken in terms of investment, with a special emphasis on providing tax incentives and customs facilities. Being in the third year of implementation of the Strategy [1], we find that several measures have been taken in terms of investment facilitation, such as the legalization of capital, tax amnesty, a zero rate tax applied to reinvested income. Other incentives, namely direct, that the state subsidize investment projects remain to be future targets of state policy in this direction.

It is known that the type of investment incentives used and how their allocation varies according to level of development of states, the role given to FDI in economic policies, the industry, the nature of investment and experience in using these tools. As economic development and achievement of performance in this area, internationally recognized country by improving credit ratings, the incentives to implement investment projects diminishes. Member states of the European Union also pays special attention to providing incentives for investors, but have already targeted by the direct (financial). A good example of this is that of Romania, a country the government of which approved in 2008 the Law on investment incentives, aimed at providing incentives and state aid in several sectors, including manufacturing, production and supply electricity and gas and telecommunications. Incentives will be granted by the author based on normative or administrative acts, which will establish the state aid scheme or individual aid in compliance with Community provisions in this area. Another example is the case of Czech Republic, which, in addition to tax incentives offered for a term of 10 years, provides financial support to investors by offering grants for creating new jobs (up to 5.700 U.S. \$ for a new employee) or for programs training (up to 50% of costs), and transferring state-owned land at lower price.

6. Conclusion

The investment potential of the Republic of Moldova should not be ignored, this have had increased significantly in the last 3-4 years. At other, potential investors have no relevant information on the investment opportunities in the economy of Republic of Moldova.

Risks which are facing any investor are often highly complex, including investors who invested in Moldova, and for those who want to invest into national economy. However, of these, we consider that the most relevant is the country risk.

The national economy is represented by several sectors such as agriculture, industry, construction, trade, transport, communications, and financial intermediation services.

The potential of agriculture industry is growing and opportunities for investments in agriculture refer to primary agriculture, processing, creating irrigation systems, organic agriculture. In this context we consider necessary to put in effective leverage to sustain and promote investment in agriculture, the latter being the traditional and representative for Moldova.

The National Strategy for investment attraction and export promotion for 2006-2015 years follow the objective to diminution of investment risks by ensuring the possibility of substituting imports, the competitiveness of goods on foreign markets, efficiency obtained by providing a high added value etc.

Incentives for investors, including foreigners, have a significant role of government and local authorities' position, signaling the existence of a positive attitude, open to investors. The incentives do not play key role in influencing investment decisions in one country or another,

but are one of the factors that strongly influence the location decision of project investment in any given country. Thus, the role of incentives is stressed in the final stage of making investment decisions. The importance of other factors involved in the decision to invest demonstrates that incentives are a tool hardly enough to offset the risk component of the investment environment.

The main criteria for selecting investment opportunities that investors follow either the national or global, are those relating to macroeconomic stability, legal climate, political situation constant attempts to limit bureaucracy and corruption etc.

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Internationalization of SME's in the Context of the Economic Crises

Ionica HOLBAN (ONCIOIU)

nelly@cta.ro

*Alexandru Ioan Cuza University of Iasi
Academy of Economics Studies from Bucharest*

Florin Razvan ONCIOIU

oncioiu_florin@yahoo.com

The University of Agronomic Sciences and Veterinary Medicine of Bucharest

Abstract

The Small and medium enterprises bring a significant contribution in what concerns competitiveness, research, innovation, employment as well as the solution to particular problems. We should strive to develop a dynamic and competitive SME sector, which will contribute to the economic growth, employment and reduction of poverty. In the context of the economic crises the need to have vast and inclusive information will trigger a very profound and broad process, with major changes in all the components of the economical activity, also in SME's. In this paper we present the importance that small and medium-sized enterprises have and the objectives to understand the necessity to develop them for the national economy, knowing the optimal strategies to be adopted, practical possibility to adopt strategies of innovation by the SMEs.

Key words: small and medium enterprises, internationalization, competitiveness.

JEL Code: F23, F43, O47.

1. Introduction

One of the matters that make the subject for the actual debates is referring to the future of the national economy, in a world which is in an accelerate process of globalization. Actually it is about the transit from the national economy to the global economy, as a homogenous world space, where the national economies are dissolved and the fundament of which incorporates a diversity of positions because on the global plan the firms and not the states enter in the competition, and the organization of the global economy is determined by the "industries" dynamics and by the companies' effort to create themselves competitive advantages.

Concerning the internationalization process, a devoted definition is connected to the implication increase in the international operations. The traditional approaches that explain the firm's internationalization were formulated starting 30 years ago, as the entrance barriers on the external markets were more elevated and the firms that internationalize themselves were the large-scale enterprises, with sufficient power and resources. Thence, the majority of the studies connected to internationalization concentrated over the large-scale enterprises. Recently, under the deregulation and markets liberalization conditions, the studies included also the internationalization of the small - and medium size enterprises.

So, the businesses' internationalization and mostly, the internationalization of the small-and medium size enterprises, arouses a big interest in the academic and businesses environments from Europe and on world plan, when the transformations from the economy of the beginning of the XXI century tend to bring the small - and medium size enterprises in the close-up view of the economical development, conferring them a new status.

2. The importance of reflecting on the internationalization of SMEs

The essential dominant characteristic of this century is changed. It applies to all the organizations, including SMEs, no matter what they do, all are systems undergoing change, and their self – regulation is done through management.

We will witness, in economy, a revolution of the information which is the base of the economical increasing significance of information, of the capacities and of the SMEs organization competences. An essential role in the starting of this revolution is held by the mixing up between the new IT, the communication technology and acquisition means, making, dissemination and use of information.

There is a variety of factors that impels the creation, development and inclusively the internationalization of the small - and medium size enterprises, considered to be or not specific for the economy based on knowledge. Between these, at least the followings should be taken into consideration:

- ✚ The small number of components, the tangible dimensions of the tangible assets, the smaller complexity of the activities, the flexible structure makes easier the situation in the close-up view of the preoccupations, decisions and actions of the knowledge's resource;
- ✚ The entrepreneurial spirit, the elevated degree of cohesion, the flexibility and the organizational dynamism are to be found traditionally in the small– and medium size enterprises, being in the same time characteristic for the economy and the firm based on knowledge;
- ✚ The increase of the preparation level of the population and his new economical-social structure, with the development of the entrepreneur spirit, so the increase of the population's proportion that can initiate and develop entrepreneurial activities, will determine the interest's amplification and the real preoccupation of the population in this direction.
- ✚ The accentuation of the individualization and personalization of the products and services that follows to the production's demassification process, when the level of the economical development and the life standard increases, also brings new opportunities to the small– and medium size enterprises;
- ✚ The technical and technological changes, such the diminution of the equipments and technologies complexity, the increase of their performances, the modularization of the technical activities, the technical standardization, the proliferation of the telecommunications, etc., determine the diminution of the investment, technical and human efforts, necessary to develop a small - or a medium size enterprise. From the category of technical and technological changes, the most remarkable is the informalization of economy, with a special impact over the small - and medium size enterprises developments, if the access to information increases substantially, with reduced costs, then the communications with the business environment are facilitated and amplified, the informational decalages between the small-and large-scale enterprises are considerably diminished;
- ✚ We have to mention, as factor that manifests in a special manner in the countries of the

European Union, the outlining of the approaches and politics of regional and local development, for the elimination of the decalages between the regions of a country or between countries. The regional and local developments are especially centered on the support of the small - and medium size enterprises.

- ✚ Regarding the motivations of the internationalization of the small - and medium size enterprises, the specialty literature associates them the two big categories of devoted motivations, the reactive type and proactive type:
- ✚ The reactive motivations are those that response to the pressures from the businesses environment, such as: concurrence pressure, the diminution of sales on internal plan, the capacity excess in rapport with the sales possibilities on internal plan, the supra production determined by the conjectural factors, the accessibility of some foreign markets, etc.;
- ✚ The second category of motivations grounds the voluntary engagement of the firm on international plan for the capitalization of some competitive advantages, such as: the access to the material and financial resources abroad, the reduction of costs by capitalization of the economical advantages or of commercial policy from the foreign countries or by the increase of the production scale, the capitalization of the technological progress hold by some domains, the orientation to the external market of the management, etc.

For the small - and medium size enterprises, the accent is on the motivation of type proactive, and especially on the managerial implication.

The necessity of the firms' outliving, in the circumstances of the maturing of the internal markets, binds them to find new businesses opportunities in other countries. As the liberalization degree of the international commerce increased, and as the accentuation of the globalization, the firms confront even on their own markets with a stronger foreign concurrence, to which they need to face directly, by the approach of some strategies very offensive, when the financial means allow this, or by the capitalization of other occasions of business from the external markets.

The increase of the internationalization of the small - and medium size enterprises brought a series of challenges to the existent theories concerning the explication of the firm's internationalization process, which doesn't explain in totality their comportment or they can not be used to make right predilections of their evolution. Between the traditional theories, devoted, concerning the internationalization process, there is the theory of the product's life cycle, the stage theories, the theory of the transaction costs, the eclectic paradigm of John Dunning, the approach based on networks, etc. The studies realized in the last decade demonstrate that some firms, mostly small - and medium size enterprises, start to have international activities even from the setting up or after setting up, phenomenon that can not be totality explained on the basis of the traditional theories. Consequently, a new theoretical current for the explication of the international process developed, that starts from these evolutions and so, it has in center the small - and medium size enterprises, current situated in the present in consolidation process, having at the base concepts as "born globals" or "international new ventures".

It is signaled a series of special modifications in the typology and the sector's structure of the small - and medium size enterprises, that have a stronger international dimension – it is about enterprises from rush sectors of the economy, virtual enterprises, the enterprises integrated in the chain of added value of some large-scale enterprises, in networks of enterprises or clusters that arouse a rising interest in the specialty literature.

The internationalization strategies of the small - and medium size enterprises, explained on the basis of the traditional approaches of the internationalization, are enriched by new elements, in accordance with recent evolutions, new types of internationalization strategies according the model "born globals", integration in networks and clusters, etc. being proposed.

In principle, gradually, the internationalization of the small - and medium size enterprises is realized by crossing several stages that define as many types of firms with international activity and express specific motivation of the participation on the world market. The studies realized starting the 90's of the last century, show that some firms, especially small- and medium size enterprises, don't follow anymore a gradual, stage process of the internationalization, they beginning to have international activities even from the setting up, to enter on the markets from big geographical distances, to penetrate simultaneously in more countries, to form strategic alliances and mixed societies without having an anterior experience, etc. Consequently, a new theoretical current for the explication of the international process developed, that starts from these evolutions and so, and it has in center the small - and medium size enterprises, current situated in the present in consolidation process. Any from these models can not explain by itself the dynamics of the small - and medium size enterprises' internationalization, and especially of those from the rush sectors of the economy, the resource of which tends to be represented more by knowledge. For many times, it is suggested a complex approach, which has to take into consideration much more models and theories, so that to permit the profound study of the phenomenon. However, the majority of studies give the priority to one of the devoted model, and the stage approach still remains dominant. At the same time it is signaled also essence modification in the typology and structure of the small- and medium size enterprises' sectors, due to these new evolutions.

In the case of the European Union, a special attention was conferred to the following types of small- and medium size enterprises: small - and medium size enterprises from the rush and medium technical sectors that have affinities by the nature of the businesses deployed with Internet and the new evolutions of the market; the small - and medium size enterprises that exploit the opportunities offered by the electronic commerce, especially in the services sector - sometimes named cyber-firms; the small - and medium size enterprises integrated in the chains of added value of the big companies which are forced to innovate under the pressure of the main clients.

Alongside the adhering to the European Union it is clear that Romania experiences a new stage of profound transformations, in accord with the tendencies from the contemporary world, it is in the front of the greater challenges that history offered and namely the SMES sector which in the last years introduced a series of measures to accelerate its increase. These measures were made to create a permissive regulation environment, legislatively and fiscally favorable; to provide financial assistance for the SMES's development and support; to improve the competitiveness and to stimulate the development of the entrepreneurial culture.

From the sector's structure point of view, but also as organization modalities of the small - and medium size enterprises from Romania, it is remarked the accentuation of some forms and also the networks and the clusters, which have to base an intensification of the relations between firms and between them and stakeholders and which benefit in the present of special attention:

- ✚ The firm networks are formed as the third potential organization form, situated between market and classic firm. These networks will be able to compete with the big firms, the cooperation between them contributing to the exceeding of the handicaps generated by the insufficiency of the resources of the small firms. So, virtual organizations are created or collaboration networks between firms and persons situated in different places that interfere within a fluid organizational structure, able to adapt themselves to the participant's needs

and to facilitate the performance attainment by using the resources in common. Within these networks, the international dimension is for many times implicit;

- ✚ An evaluated form of firm's networks in observation and which is considered to take a big ampleness in the future is the cluster- that intercorrelates the component firms to a higher level, making them to action as an integrated system, cumulating on superior plan the diversity and complementarity's advantages of the network and also those of the intense interfingering from the implied activities, similar to those of a big organization. As for the networks, the international dimension appears for many times implicitly.
- ✚ Thereby, concerning the internationalization strategies that should be implemented also by the Romanian small- and medium size enterprises, it is traditionally recognized the influence of some factors as: firm's characteristics, businesses environment or the way they conceive the development on international level:
- ✚ Concerning the firm's specific, traditionally it is considered that the medium size enterprises internationalize easier than the small firms and the firms with longer experience in business are able to promote an internationalization strategy towards the firms new founded. The small - and medium size enterprises from the processing industry, that produce corporal goods, develop easier international strategies based on the product differentiation, and the holding of an technological advantage, as certificates or marks, represents a trump in the internationalization process. A big part from these considerations are in the present infirmed by the internationalization phenomenon of the firms of type "born globals";
- ✚ Strategies associated especially to the small - and medium size enterprises related to the environment characteristics, when an accentuate competition on the internal market and a rapid change rhythm in their activity domain can be associated with the orientation to the international market- between them it should be mentioned the niche's strategy, which presupposes their concentration on the products and services for which it is disposed competitive advantages as a result of their capacity of innovation, adaptability and personalization of the production in connection with the request exigencies;
- ✚ A significant delimitation in comparison with the new evolutions is that relating to the firms' action way, strategies of competitive type, independent or cooperative being pointed out, in collaboration with other firms. Traditionally, it is recommended that the small- and medium size enterprises to resort to competitive strategies, that can be proved as an efficient way of commercialization of the products from the external markets and of exceeding of the handicap related to the available resources. For this, the small - and medium size enterprises cross the well known phases, starting with the strategy substantiation, based on the analysis of the internal potential and of the external environment, continuing with the strategy's proper formulation, with their components, and materializing in implementation;
- ✚ The substantiation of the internationalization strategy includes so the opportunities identification and the associated risks with accent over the evaluation in opportunity terms of the localizations and potential activities, in this sense, being studied the businesses environment characteristics, with the request analysis, concurrence, restrictions concerning the access on market, etc., and especially the risks related to internationalization, economical, political, financial, etc.
- ✚ The formulation of the internationalization strategy, based on the results of the effectuated analysis in the anterior phase, supposes as essential aspects the establishment of the firm's international objectives, market and partners' selection and the establishment of the operation ways - respectively, the internationalization forms. The strategic objectives of the internationalization that can be adopted in the actual context of the small - and medium

size enterprises suppose, as in the case of the big firms, selection between the increase of extensive type and the increase of intensive type, the autonomous development or partnership, etc;

- ✚ The proper implementation of the strategy, so it has been substantiated and formulated as a preliminary.
- ✚ The Romanian industry operates already in an open and competitive environment. There is a series of measures that can facilitate the SMES competitiveness maintenance in order to operate in continuation on the autochthonous market more competitive and more and more important, even sometimes it is unrealistic neglected.

3. Conclusion

In conclusion, at a general level, the passage from the internationalization to economical life globalization - one of the defining characteristics of the evolution of the businesses environment at world scale in the second half of the XX century - has a great influence in the economic crises over the small - and medium size enterprises and over their internationalization. The influence is mixed, both negative, by the superior concurrence, the increase of the turbulence of the businesses environment, and positive, facilitating the access at new markets of provision and sale, the acceleration of the know-how transfer, the access at new technologies, partnerships and strategic alliances at international level, etc. The specialty literature and the real evolutions of the small - and medium size enterprises, proves the fact that these situate rather in the position to counteract the negative effects of the economical internationalization and to valorize the positive ones, particularly those from economy's rush domains.

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Interactions of Organizational Culture and Collaboration in Working and Learning

Ioan PASTOR

ioan_pastor@yahoo.com

"Petru Maior" University, Tîrgu Mureş, Romania

Abstract

This paper reports the methodologies and findings of research done into learning processes in two diverse environments. The research focused on identifying factors that enable and facilitate social learning. These factors are discussed in view of the preliminary architecture and in view of the socio-technical environment within people work and learn. The paper concludes by suggesting that the development of information system requires an understanding of the cultural and interpersonal issues prevalent in work environments.

Keywords: Knowledge Management, Organizational culture, Organizational learning, Socio-technical approach

1. Introduction

The management and organizational learning literature of the 1990s reflects profound and continuous changes in the business climate due to uncertainty. In this world of uncertainty, organizations need to continually renew, reinvent and reinvigorate themselves in order to respond creatively to market forces. This process of reinvigorating requires shifts in organizational structures and processes. Organizational knowledge and how it is effectively incorporated into the organization's practice is the critical issue for business activity. Many organizations invest heavily in implementing information technology (IT) in the hope of providing a seamless solution to managing information resources and organizational knowledge. Unfortunately, these initiatives are often implemented without much regard to how people in organizations go about acquiring, sharing and making use of information. There is an increasing awareness of the importance of the social aspects of systems. Some researchers argue that a solid understanding of organizational culture, human (social) interactions, communication and relationship is required in order to make progress.

This paper sheds further sight on the personal, cultural, social and organizational factors that facilitate organizational learning. The immediate aim of this research is to understand the issues inherent in building learning, adaptive and sustainable organizations. The long-term objective is to develop architectures that will support the development of information system to guide and enhance organizational learning and facilitate knowledge management.

2. Social learning

As Jordan (1996) explains, informal learning is inherent in all human activities. In work life, socially-based learning occurs frequently. Lave and Wenger (1991) refer to the interactions between people and the environment as situated experience or situated learning. It is through learning that we see ourselves in a different context and this transformation of oneself through learning is particularly important if one is to contribute to the dynamic changes in the organizational landscape.

For this research, social learning is defined as learning occurring within a group, an organization, or any cultural cluster and it includes:

- ✚ the procedures that facilitate generative learning – learning that enhances the enterprise's ability to adjust to dynamic and unexpected situations and to react creatively to them;
- ✚ the procedures by which knowledge and practice are transmitted across posting cycles, throughout time and across different work situations.

Below is a brief description of the study methodology, on the role of personal and cultural factors in social and collaborative learning in the workplace.

3. Study Methodology

Given the exploratory nature of the research, as well as the importance of the context, there were used techniques in the form of fieldwork. This entails observing work in different settings and using directed questioning to clarify issues. In addition to observation, I used unstructured interviews with a sample of personnel from the joint and single service strategic HQs. A stratified sampling technique was used to ensure adequate representation including: branch and sub-branch affiliation, gender, rank, work location, and duration of placement. Fifty-nine interviews were conducted, 15 in the joint service headquarters and 44 in a single service headquarters.

Furthermore, quantitative surveys were also used in both joint service and HQs. In both settings, the total population was surveyed and the response rate in the joint HQ was 96,7 % and the single service HQ, 71 %. The purpose of the survey was to validate the qualitative findings foremost, and also to move the focus of the research from „what the researcher might think” to „what the staff of a particular setting thinks”. Research data were triangulated by methods of data collection and by functional role .

4. Study findings

The findings represent the collective research results to date; preliminary results are discussed in this paper. These findings are multilayered and have resulted in the following set of overarching values that facilitate effective social learning:

- ✚ empowerment;
- ✚ forgiveness of mistake making;
- ✚ trust;
- ✚ individual and organizational commitment;
- ✚ sharing of information;
- ✚ openness of decision making;
- ✚ cultural cohesiveness.

Although I do not use the term „organizational climate” or „organizational culture”, the set of overarching values are reflective of these terms. I do not take a position on whether this set of value is solely an organizational property adopted by individuals or wheter it is influenced by, or based on individual members, behaviour and beliefs.

Apart from the overriding set of values, an additional set of factors that enables effective social learning was identified. These factors fall into two categories. The first, Learning Capability Development, refers to characteristics in the environment and provides a context in which the second category operates. This second category is referred to as Enablers and represents processes and strategies that, if present and effectively applied in an enterprise, can facilitate social learning.

The characteristics of these Enablers, like the organization's set of values, emanate from personal and cultural elements within it. The Enablers can, from time to time, be either challenged or inhibited by these elements; examples might include uncertainty of budget allocations, inconsequential work practices, a highly politicised environment, organizational change (change fatigue), and changing organizational cultural values.

5. Factors and Constructs

I identified seven basic categories that constitute enabling processes and strategies to facilitate social learning: Common Identity, Problem Solving, Team Building, Access to Information, Development of Individual Expertise, Communication, and Induction and Enculturation.

Common Identity – a common ground/understanding to which many people/groups can subscribe, and requires a shift from seeing oneself as separate to seeing oneself as connected to and part of an organization unit. Based on this research, issues impacting on Common Identity are: goal alignment, cultural identity, gender identity, language, morale, and workplace design (spatial and physical design).

Problem Solving – a core activity. Problem solving fosters social learning, because it represents an opportunity to generate knowledge. Issues associated with this enabler are: networking, improvisation, perceptions of the organization, systemic understanding, and time for inquiry and reflection.

Team building – working together and understanding what each member is trying to do. Team building is essential to effective social learning and problem solving. Issues associated with this enabler are: leadership, team-based morale, performance management, public recognition and reward systems, use of humour, and workplace design.

Access to information – the easy availability to corporate information in whatever format. Access was observed to affect knowledge acquisition and generation of new knowledge and social learning. Issues associated with this enabler are: record keeping, networking, meetings, and information technology (IT) infrastructure.

Development of individual expertise - the acquisition and development of expertise was seen as an integral part of social learning. Issues associated with this enabler are: career trajectories, professional currency, professional training, postings and promotion, and mentoring.

Communication – this enabler was observed to be essential to effective learning within an organization and to effective social learning. Issues associated with this enabler are: overall communication climate, formal and informal flows, time for inquiry and reflection, use of humor, language, and workplace design.

Induction and enculturation – facilitates social learning by providing a foundation upon which an individual can become fully productive. Issues associated with this enabler are: timeliness and comprehensiveness of the process, buddy/mentoring system, handovers and information packages, and training. These factors enabling social learning identified from the data are by no means exhaustive.

6. Data summary

Research on the cultural aspects of those organisations that foster new knowledge and generative learning suggests that employee trust and open communication play an integral role. Furthermore, higher levels of trust between managers and employees are correlated with more open communication.

The research reported in the literature supports these findings that trust is pivotal in climates of organizational change and when environments are uncertain. The results of the quantitative surveys indicate that trust in the leaders and their decision-making played an important part, with just over half (53%) of the respondents in the single setting strategic HQ saying that they trust decisions made by their leaders. It is interesting to note that the higher up the chain of command, the greater the level of agreement with this statement. One of the informants put it very succinctly: „We need a far more open information network that actually allows us to see how the organization works”.

The findings on open communication were also indicative that levels of trust amongst lower level staff are greater than between them and senior defence managers. For instance, 96 % and 84 %, respectively, in the joint and single service strategic settings reported being able to voice their opinions to their immediate supervisor. Furthermore, a large proportion (75 % and 60 %) felt that they received adequate feedback, and a vast majority (84 % and 80 %) felt they were taking part in decision that affect their work. On the other hand, this open communication was not perceived to be as prevalent with senior managers, with only 30 % and 32 % respectively agreeing that they could voice their opinions to them. During the period of frequent organizational changes only 17 % and 40 % respectively indicated that the organizational change process was consultative at all levels. However, it is interesting to note that 81 % and 72 % respectively said that they were comfortable with expressing their views about the changes taking place. Table 1 shows these results.

Table 1. Quantitative findings on trust and open communication

Question	Joint Strategic Setting (%)	Single Service Strategic Setting (%)
I trust the decision made by leaders	-	53
I am able to voice my work-related opinions to immediate supervisor	96	84
I have the opportunity to voice my work-related opinions to senior defence managers	30	32
I receive adequate feedback on my work	75	60
I take part in the decision-making processes that affect my work	84	80
Organizational change process involved consultative process at all levels	17	40
I was comfortable in expressing my views about organizational change	81	72

7. Information Sharing

Shein (1993) and Phillips (1997) have studied the impact of information sharing on the development of common identity (commonality). They suggest that information sharing promotes common identity, mutual trust, and organizational learning, and is directly related to organizational cultures that foster generative learning. Shein (1993) also claims that opening up and sharing encourages integration between organizational subcultures and in turn, organizational adaptation to change. The findings of this study strongly suggest that in addition to an information sharing culture, the development of common identity is achieved also through induction and enculturation progress. This aspect of common identity was not effective in the joint service strategic HQ since only 12 % stated that their induction was well managed and 33 % reported that they received adequate briefing regarding their duties. The following comment well summarises the sentiments of many people I interviewed:

„Through my 25 years experience, handovers are a disaster, for the most part –with some exceptions. If the individuals take effort to do a good handover, that will occur. Organizationally, there’s very little in place to make it happen”.

Enculturation and induction are forms of sharing information. If effective, they not only promote development of common identity but also facilitate social learning by providing a foundation upon which the individual can become fully productive more quickly, and thus is more likely to generate new knowledge. It follows, therefore, that negative perceptions of induction held by members of the joint service strategic HQ could hinder social learning.

In the single service strategic HQ, the results were more encouraging with 46 % feeling positive about the conduct of their induction to the organization and 51 % receiving adequate briefing about their duties. Further, 59 % stated that when they first joined in it only took a few weeks before they had a good grasp of how the team did things. In this setting, therefore, social

learning would be facilitated via the promotion of common identity as well as by the transfer of information and organizational knowledge.

8. Forgiveness in Culture

It was observed that settings characterised by a culture of forgiveness and a climate where exploration, mistakes and taking some risk were allowable were those where collaborative generation of new ideas was more prevalent. Forgiveness for mistake making is one of the basic stumbling blocks because it slows or prevents or even erodes some of the knowledge as it moves through the organization (sharing of information). Organizations have a responsibility to create a culture in which learning occurs, and that culture will determinate the quality of learning that takes place. A culture that minimises the fear of making mistakes and exercises praise and rewards, not only for those who succeed but also for those who tried hard and might not have achieved the desired results, is important in the learning organisation. Open communication and the encouragement of questions are effective vehicles for driving organizational learning.

This culture of forgiveness and learning from mistakes was widely prevalent in the tactical environment where mistakes were freely, admitted and discussed. This process became a vehicle from which the whole group benefited. It was observed that this positive communication climate was supported by a high level of trust between group members and across hierarchy. Also, in the single service strategic HQ, 92 % of those surveyed reported that can positively learn from the mistakes they make, and the same percentage stated that their supervisor would stand by them when they make a good suggestion. Research indicates that when supervisors are highly supportive of their subordinates (e.g., showing concern for the employee's ideas and feelings), is enhances employee initiative at work.

A vast majority of respondents (99%) were willing to share their knowledge not only within their immediate team but also across directorates and other functional groups, and 93 % stated that they were neither inhibited in asking for help, nor did they hide their lack of knowledge if they were unsure how to do their job. In the joint strategic environment, on the other hand, the climate of forgiveness and the application of lesson learned were not so prevalent. A number of informants said they avoided asking questions because „the culture was unforgiving and there was intolerance for not knowing” However, I was also told that in order to learn and do one's job well it was necessary to have „an arrogance of not knowing” and that one can't be expected to know certain things without asking questions, and that if criticised, one should respond by saying „well no, I don't know and I really do think there's a problem”

It was also observed, in the case of some individuals, that having information and knowledge was perceived as having power: „...he's just the type of guy that if you get something out of him, it's like he's doing you a favour...it's just like he's scoring a point by doing it”.

The tendency to hold on to information rather than share it would inhibit social learning by preventing its transfer to other. Withholding of information may hinder or even prevent individuals from developing a knowledge foundation from which new knowledge can be generated. Indeed, this expertise when combined with”position power” provides the power base that makes one indispensable and influential in the organization.

9. Information technology and learning

Information technology plays an important role in enabling organizations to use information and knowledge to their strategic advantage. To investigate information technology's role in collaborative learning, I gathered self-reported data on the use of human and non-human means of acquiring and transferring knowledge. The data pointed to information technology being used as a vehicle for better utilising personal networks complementing rather than replacing person-to-person contact. For instance, in the single service headquarters, personal networks and then meetings were ranked as the most preferred non-technology information sources. Further, email and telephone were ranked above shared drives and Internet/Intranet sources as

preferred technology-based information sources. These results suggest that even when employees are using technology, they are doing so to enhance communication within their personal networks. Moreover, informal channels, such as chatting with colleagues, either in person, over the phone or via emails, were used by 62 % of respondents to obtain work-related information. Interestingly, the majority of these were middle managers or below, and although 59 % of respondents also claimed to use formal means to obtain work-related information, the largest proportion were senior managers. This apparent contradiction is clarified by data from semi-structured interviews where the vast majority of people, across all settings, stated that they found human sources the most effective, and usually the most efficient, means to obtain work-related information.

A possible explanation for this preference may be that information from technology-based sources might be stripped out of its context and rendered less meaningful. Through interpersonal interactions individuals are able to probe and question and not only the desired information but also the richness of contextual meaning. The study results point to the technology being used to facilitate interpersonal networks within which interaction occurs. Another possible explanation for these preferences is that much information is actually knowledge that resides only in people's minds. The preferences are not due to ineffective records management because there has been no codification into a written form.

10. Conclusions

The implication of this study is that organizations seeking to improve information sharing and knowledge generation need to develop a greater awareness of the processes and strategies of organizational learning. Organizational knowledge is distributed across functional groups and its generation and continual existence is dependant on the overall communication climate which is embedded in the organizational culture. This study indicates that information sharing and subsequent knowledge generation would be successful when interactive environments are cultivated before technology based solutions are implemented.

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On the Relationship between Export Activity and Size

Jesús ARTEAGA ORTIZ

jarteaga@dede.ulpgc.es

University of Las Palmas de Gran Canaria. SPAIN

Abstract

Together with the general and sector environment and various internal factors, firm size is one of the main groups of factors determining export activity. However, few works have examined this aspect, with the studies of Alonso and Donoso (1994, 1998) standing out in the Spanish case. The objective of this empirical work is, on the one hand, to describe the size of non-consolidated exporting Spanish SMEs or those not exporting but interested in export and, on the other hand, to assess the possible relationships between export activity and the size and other demographic characteristics of the firms participating in this study.

Key words: Internationalization of businesses, export, small and medium firms, firm size.

JEL Code: M21, M3, F23

1. The importance of firm size

There is no consensus about a single classification of factors determining exporting, since; while some authors agree in general, they sometimes differ in their opinions about which variables influence the exporting activity. However, most authors classify the determinants of that activity into two types; external environment factors and business area factors (Aaby and Slater, 1989; Alonso and Donoso, 1994, 1998). We understand the first type of factors to include cultural, political, social and macroeconomic factors, among others, and the second type to include aspects that are essential to the company strategy and the corporate capabilities that are necessary for the exporting activity.

While the most common criterion in classifying determinants of commitment to export is the distinction between internal and external factors, Alonso and Donoso (1994:114) establish that "it is necessary, however, to add a third relevant factor: the analysis of *management* attitudes and aptitudes". Those authors state that, from an alternative perspective, this factor can be considered to be included in the company's corporate resources, but that, because of its different nature, more subjective than objective, its relative autonomy compared to other factors, and its decisive influence on company behavior, it is advisable to treat it differently. In this respect,, Kamath, Rosson, Patton and Brooks (1987) differentiate between the determinants in the business area, the characteristics of the company itself and the decisive factors.

In reality, this new factor refers to a set of subjective factors that influence business decisions, making it necessary to include the dominant values within the firm, its willingness to take risks, management styles and other emotional factors. Thus, Alonso y Donoso (1994:115) argue that "[...] few variables have shown a more solid association in empirical studies than

that which links an exporting behavior with management aptitudes”, citing the empirical works of Bilkey (1978), Aaby and Slater (1989) and Axinn (1985). Therefore, the fact that a firm includes an exporting activity in its strategic behaviors does not depend exclusively on it having the ability; those other, motivational factors are also needed since they decisively change the scope and quality of the decision to export.

It can be deduced from the works reviewed that there is a series of internal company factors that are linked to an exporting commitment. Three types of research can be distinguished from that review: (1) research focused on the analysis of internal factors affecting the decision to export (Pavord and Bogart, 1975; Welch and Wiedersheim-Paul, 1977; Reid, 1980; Cavusgil and Nevin, 1981), (2) studies that aim to identify differences in export commitment among a group of exporting companies (Axinn, 1985; Alonso and Donoso, 1994, 1998), and (3) works designed to explain the intention to export or to increase exports (Gripsrud, 1990; Yang *et al.*, 1992).

On the whole, company size has been one of the variables most studied as a possible determinant of an exporting behavior and of the internationalization process, with the relevant works in literature taking different postures toward the relationship between company size and exporting (*e.g.*, Bilkey and Tesar, 1977; Aaby and Slater, 1989; Christensen, da Rocha and Kerbel, 1987; Bonaccorsi, 1992; Caughey and Chetty, 1993; Lefebvre *et al.*, 1998).

The first problem that we encounter is the lack of a clear, unequivocal concept of company size, which makes it necessary to examine a great number of definitions that have been proposed. To give some examples, Aaby and Slater, (1989) understand size as the sales growth rate, while Caughey and Chetty (1993) refer to market share and Lefebvre *et al.* (1998) to the availability of financial and non-financial resources.

There are two main reasons for authors attaching so much importance to company size: 1) this variable serves as an approximate indicator of available resources, and 2) that information is easy to obtain from the number of employees, amount of assets or sales turnover (Rogers, 1995).

Regarding the results and conclusions of the studies that relate firm size to the export activity, some works have clearly reached the conclusion that large companies have an advantage when they internationalize (Christensen, da Rocha and Kerbel, 1987; Bonaccorsi, 1992; Lefebvre *et al.*, 1998), basically because of their greater financial and non-financial (personnel, knowledge, etc.) resources. However, other works argue that small and medium firms show a more active exporting conduct (*e.g.*, Alonso and Donoso, 1994). In the review of the literature, only Bilkey and Tesar (1977), after their empirical study, categorically state that size is not significantly related to the propensity to export. .

To be more specific, Cavusgil and Noar (1987) and Bonaccorsi (1992) defend the hypothesis that the smallest firms tend to expand in their domestic markets first, which entails lower levels first of uncertainty and risk. Furthermore, Bonaccorsi (1992) suggests the likelihood of becoming an exporting company may grow in line with the company size. However, that hypothesis excludes, on the one hand, high technology companies, for whom domestic demand is soon met and, on the other, companies with a product aimed at a market niche with a global demand, such as industrial equipment.

The review of the literature seems to reveal that large firms have more resources, have the advantage of a broader, more intensive sales operation and that they enjoy a greater ability to assume risks (Christensen, da Rocha and Kerbel, 1987; Gripsrud, 1990). One explanation of

why the probability of exporting increases with size refers to the need to have a minimum level of available resources, both financial and organizational (personnel, knowledge, etc.), to take on an exporting operation. .

Another argument implies that large firms with areas where they can make economies of scale (production, marketing, research and development, etc.) tend to increase their export activity. In this respect, Alonso and Donoso (1989) consider that economies of scale place large firms in a better position to export, since those economies reduce the unit cost.

There are two dimensions to economies of scale; static and dynamic (Helpman and Krugman, 1985). The static dimension is seen in the areas mentioned above, such as production, marketing or research and development, where there is high fixed expenditure, which, with increased sales, is spread over a greater number of units. The dynamic dimension is based on a learning curve in the firm due to the creation and dissemination of knowledge and technology inside the firm. In this respect, Bonaccorsi (1992) considers that this is the third basic argument explaining why the larger a company is, the more it benefits from exporting.

While economies of scale give the large firm advantages in the manufacture of standardized products or a differentiated range of goods (Christensen, da Rocha and Kerbel, 1987), the small and medium firm has the advantage of achieving a high level of specialization. This enables them to exploit market niches that would be of little interest to large firms and so facilitates their presence in markets that require differentiation or innovation in products. For Alonso and Donoso (1994), that advantage means that specialization, like innovation, boosts the exporting activity of small and medium companies by ensuring optimum use of their production capacity, on the one hand, and by recovering the financial effort devoted to the technological side, on the other.

2. Objectives and methodology of the empirical research

The objectives of our research are: (1) to measure the size of the firms participating in the study, (2) evaluate possible associations between the size and other demographic characteristics of the firm and (3) to examine the association between size and exporting commitment and the presence of a specialized export department.

With those empirical objectives in mind, we have chosen small and medium firms for various reasons. One is that the internationalization process follows a sequential strategy of approach to foreign markets that is mainly applicable to small and medium firms taking their first steps in international business (Young, 1987). Exporting is one of the first steps and is an almost obligatory step for small and medium firms.

Another is that, in Spain, small and medium firms constitute 99.9% of all companies and generate 64% of total sales but only 44% of exports (See Table 1). We must also take into account that 95.7% of large companies have export activities, while the percentage drops to 30.7% in the case of firms with fewer than 20 employees (Ortega and González, 2000).

Table 1: SMEs in Spain and the European Union
 Based on data from the INE (Spanish National Institute of Statistics)

	Spain	European Union
% SMEs of total companies	99.9%	99.8%
% Micro-companies (< 10 employees) of total companies	95%	93%
% SME sales of total sales	64%	70%

	Spain	European Union
% SME employment of total employment	70%	66%
% SME exports of total exports	44%	61%

Note: Data from DIRCE (Central Register of Companies), which stores a set of magnetic material encoded data prepared by the INE since the end of 1989.

The unit of analysis of this work comprises Spanish non-consolidated exporting firms and Spanish firms that do not export but are interested in doing so, all of which participate in the PIPE 2000 Program. This is a program of assistance in internationalization, specifically in the development of the foreign promotion and marketing stages of non-exporting Spanish SMEs with some interest in exporting, and non-consolidated exporting SMEs. The program is organized and run by ICEX⁵ and the Board of Spanish Chambers of Commerce with the collaboration of the Autonomous Communities. Every year the administrations involved in the management of the program run advertising campaigns and take widespread communication actions via the national, regional and local governments, as well as through business associations. That leads us to assume that few non-exporting firms that are, or have been, interested in exports are not included in the program. We should also point out the choice of this program is seen favorably since it covers an entire, known and multi-sector population, while its partial results, 2,000 new export companies in the year 2000, indicate the accomplishment of its objectives (Ortega and González, 2000).

Thus, our unit of analysis comprises Spanish non-consolidated exporting companies and those firms not exporting but interested in doing so, all of which are participating, or have participated in PIPE 2000 from 1997, when it began, to November 2002. Our sample population was 2,590 firms, the total of those meeting the above requirements

The instrument used to gather the information was a postal questionnaire mailed to every firm in the population. To be specific, a self-reported postal questionnaire was used since the population was large and geographically widespread (Ortega Martínez, 1990), and because of the limited resources available to perform the research. The questionnaire was the result of careful preparation and considered the recommendations of Ortega Martínez (1990) regarding brevity, simplicity, relevance and precision. To make the questionnaire easier to complete, and to avoid non-response, closed or semi-open questions were preferred and were based on a review of the mainly empirical literature. We should mention that the individuals chosen to receive the questionnaire, and consequently be the informants providing the data necessary for our research, are those ultimately responsible for their companies' exports. This is because they are the ones who have the competence to make export decisions within the firm.

A total of 478 of the 2,590 firms that were sent questionnaires collaborated in the research, which means a response rate of 18.5%, with a sampling error of 4.22%. However, the real response rate was 18% after our rejection of 15 questionnaires that had some basic questions left unanswered, had been completed by the wrong person, or the correct participant recognized the uncertainty in his/her answers⁶. As a result, the final sampling error was 4.5%.

⁵ Spanish Institute of Foreign Trade (ICEX). Ministry of industry, Tourism and Trade.

⁶ To measure the accuracy of their answers, the participants were asked to indicate the degree of certainty with which they had answered the questions. They indicated that degree on a Likert type scale from 1 to 7 (total uncertainty to total certainty) and an average value of 5.90 was obtained, with a typical deviation of 0.84. All questionnaires that obtained a value of less than 4 were rejected.

Apart from the traditional descriptive aspect of the size of the participating firm, there was also a series of statistical analyses to identify possible associations between size and a set of variables referring both to the firms' demographic characteristics (sector, turnover, legal form of enterprise and average net profit margin) and to characteristics of the export activity (presence of an export department and propensity to export).

2. Results

The size of the participating firms

As already mentioned, the relationship between firm size and export activity is one of the most widely studied aspects in the literature on international businesses, and an almost obligatory analysis in any study of the exporting behavior. Size is a synthetic variable to which many other aspects regarding the firm's technical possibilities and economic, management and financial capacity may be related. From this perspective, size provides a simple, frequently available criterion for defining company groups with homogeneous characteristics and strategic possibilities. The concept of firm size is quite relative in any sector that we consider, since it can be measured using different parameters or criteria, such as turnover, number of employees or productive capital, among others.

The empirical works on the export behavior of companies have used various criteria to measure firm size. These include sales turnover or volume of business (*e.g.*, Reid, 1985) and/or number of employees (*e.g.*, Axinn, 1985), with the latter being more usual (Alonso and Donoso, 1998). According to those authors, "even when the workforce is the most used variable, size can be calculated by other factors expressing business activity, such as turnover or exports, those three variables have some relationship with one another, but with some interesting connotations" (Alonso y Donoso, 1998:7). However, Ortega and González (2000:89) suggest that "company size defined by the number of employees has a significant effect on exports".

Considering the purpose of our research and the characteristics of our population, we thought it best to use the workforce as the measure of company size. The questionnaire contained an open question asking the participant to indicate the average number of employees per year, subsequently recoding it into the categories traditionally used in the literature⁷: (1) micro-firms, with fewer than ten employees, (2) small firms, with between eleven and forty-nine employees; (3) medium firms, with between fifty and two hundred and fifty employees and (4) large firms with more than two hundred and fifty employees. The respective frequencies are shown in Table 2.

However, in order to exercise prudence regarding which measuring instrument to use, we decided to include turnover as an alternative measure of size. The intervals are as follows: between 0 and 0.6 meuros (between 0 and 100 million pesetas), between 0.6 and 1.8 meuros

⁷ Most national research works carried out in Spain that have considered this variable (*e.g.*, Alonso and Donoso, 1994, 1998; Ortega and González, 2000) include the same categories as we have used in this work, but with different values in the case of the small, medium and large firm. They consider small firms to be those with between 10 and 99 employees, medium firms those with between 100 and 499 and large firms those with over 500 workers. We have followed the criterion laid down by the Spanish Ministry of Finance's Directorate General of Small and Medium Firms, which, in turn is in line with Recommendation 96/280/EC (3 April 1996) of the European Commission, whose financial criteria were modified in 2003 and will come into force on 1 January 2005. For that reason, any extrapolation or comparison of the results obtained in this work with previous studies must be made with caution as far as firm size measured by number of employees is concerned.

(100 and 300 million pesetas), between 1.8 and 3 meuros (300 and 500 million pesetas), between 3 and 6 meuros (500 and 1.000 million pesetas), between 6 and 9 meuros (1.000 and 1.500 million pesetas), between 9 and 15 meuros (1.500 and 2.500 million pesetas) and more than 15 meuros (2.500 million pesetas). We can see from the number of employees that 56.3% of the firms surveyed are small, 17.3% are medium and 25.3% are micro.

Table 2: Firm size measured by number of employees

N° employees	Absolute frequency	Total cases	Valid cases
Micro (from 1-9)	112	24,2%	25.3%
Small (from 10-49)	250	54%	56.3%
Medium (from 50-249)	78	16,8%	17.3%
Not identified	23	5%	-
Total	463	100%	100%

We consider that, apart from using the number of employees to calculate the firm size, it is also necessary to study the turnover of the firms surveyed. Due to the fact that many companies would not give the exact sales turnover, we decided to ask for that figure by intervals, which are shown in Table 3.

It can be seen that 26.3% of the collaborating firms had a turnover of between 0.6 and 1,8 meuros, while the lowest percentage of firms in one interval was the 5.7% that had an annual turnover of more than 15 meuros.

Table 3: Firm size measured by turnover

Millions of euros	Millions of pesetas	n Sample	% Sample
0-0.6	0-100	66	15%
0.6-1.8	100-300	115	26,3%
1.8-3	300-500	78	17.8%
3-6	500-1,000	88	20%
6-9	1,000-1,500	37	8.4%
9-15	1,500-2,500	30	6.8%
More than 15	More than 2,500	25	5.7%
Not identified		24	-
Total		463	100%

Association between size and other demographic characteristics of firms

1. Firm size and activity sector

The results of the χ^2 test show that there are significant differences between the activity sector and the firm size ($\chi^2=28,123$; $p=0,001$). Thus, service and food and agriculture companies are significantly smaller than consumer goods companies and industrial companies.

The results of the frequency analyses in Table 4 reveal that, in the food and agricultural products sector, 46% of the companies are small and 33% are micro. In the consumer goods sector, 56% are small firms and 26% micro-firms, while 66% of firms in the industrial sector are small and 15% micro. Finally, the distribution of firms in the service sector is as follows: 48% small, 43% micro and 9% medium.

Table 4: Association between activity sector and firm size

Sector \ Size	Micro	Small	Medium	Total
Food/agricultural products	33%	46%	21%	100%
Consumer goods	26%	56%	18%	100%
Industrial products	15%	66%	19%	100%
Services	43%	48%	9%	100%

2. Firm size and turnover

The results of the χ^2 test ($\chi^2=345,107$; $p=0,000$) confirm a significant association between these two variables and we now describe the frequencies shown in Table 5.

The joint analyses of firm size and turnover reveal that 83.8% of companies turning over between 0 and 0.6 meuros are micro-firms, while 90% of those with a turnover above 15 meuros are medium-sized. Similarly, medium firms, representing 73.3% of those with a turnover of between 9 and 15 meuros, are the largest group in that interval, while small firms had a greater presence in the 0.6 to 9 meuros range.

Table 5: Association between firm size and turnover

Size	Turnover		From 0 to 0.6 Meuros		From 0,6 to 1.8 Meuros		From 1.8 to 3 Meuros		From 3 to 6 Meuros		From 6 to 9 Meuros		From 9 to 15 Meuros		Above 15 Meuros	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Micro	52	83.8	38	33.3	10	13.6	3	3.5	4	11.2	1	3.4	-	-		
Small	9	14.6	75	65.8	59	81	64	75.3	20	55.5	7	23.3	2	10		
Medium	1	1.6	1	0.9	4	5.4	18	21.2	12	33.3	22	73.3	18	90		
Total	62	100	114	100	73	100	85	100	36	100	30	100	20	100		

3. Firm size and legal form

A check of the possible association between firm size and the legal form, using the χ^2 test, shows that those two variables are related ($\chi^2=45,447$; $p=0,000$).

In that respect, Table 6 shows that most public companies are small (62.8%) and medium (26.4%) firms, while 31% of limited companies are micro and 55.7% are small firms. In the case of cooperative companies, 71.4% are small while 58.3% of companies with other legal forms are micro.

Table 6: Association between firm size and legal form

Legal form Size	Public Company		Limited Company		Cooperative		Others	
	n	%	n	%	n	%	n	%
Micro	17	10.8	78	31.7	1	14.3	14	58.3
Small	98	62.8	137	55.7	5	71.4	9	37.5
Medium	41	26.4	31	12.6	1	14.3	1	4.2
Total	156	100	246	100	7	100	24	100

4. Firm size and net profit margin

The results of the independence test using Pearson's correlation coefficient show a significant association between firm size and the average net profit margin of domestic sales ($r^2=-0,139$; $p=0,018$), and also between size and the average net profit margin from foreign sales ($r^2=-0,133$; $p=0,025$). In both cases, as the size of the firm increases, so the net profit margin falls.

The results, which are shown in Table 7, indicate that foreign sales of products are more profitable than domestic sales for the micro and medium firms in our sample, while domestic sales are more profitable in the case of small firms.

Table 7: Average net profit margin by firm size

Size	Margin	Average profit margin in domestic market	Average profit margin in overseas market
Micro		21.11%	21.94%
Small		18.08%	16.53%
Medium		15.32%	17.06%
Total		18.45%	17.96%

Furthermore, the data contained in Table 8 show that the net profit margin for domestic sales did not exceed 20% in more than 60% of the cases in all three firm sizes analyzed..

**Table 8: Association between firm size and average net profit margin
(in percentages)**

Size	Micro-firm		Small		Medium	
	Domestic	Export.	Domestic	Export.	Domestic	Export.
% Profit						
Below 10%	29%	25%	51%	46%	50%	49%
11% - 20%	35%	41%	21%	28%	31%	27%
21% - 30%	16%	15%	14%	15%	7%	10%
31% - 50%	18%	14%	9%	8%	9%	7%
Above 50%	2%	5%	5%	3%	3%	7%
Total	100%	100%	100%	100%	100%	100%

Association between firm size and exporting activity

1. Firm size and the existence of an export department

In our search for possible significant associations, we also examine the possible relationship between firm size and a certain company complexity regarding international activity. In this

case, we only considered the responses from informants who held the position of export manager or a similar position.

In relative terms (see Table 9), the highest percentage of firms with export managers was found in medium firms (49%), followed by small firms (37%) and micro firms (27%). If we refer to the results of the test between the two variables ($\chi^2=10,906$; $p=0,012$), we can conclude that there is a significant association of 5% between them.

Table 9: Association between firm size and export department

Size \ Export. Dept.	Yes	No	Total
	Micro	27%	73%
Small	37%	63%	100%
Medium	49%	51%	100%
Total	36%	64%	100%

Therefore, those results support the idea that there is a certain correlation between firm size and the presence of an export department, at least in Spanish firms, as proposed in the work of Alonso and Donoso (1998:52). Those authors state that “there is a clear and growing association between size and an export department [...], a tendency that is also evident in previous years since it is due to the higher financial capacity and greater organizational complexity that accompanies an increase in the firm’s size”. They go on to say that “Similarly, there is a clear positive association between an export department and the propensity to export.” (Alonso and Donoso, 1998:53).

2. Firm size and the propensity to export

In order to check whether that last statement is true in the case of the firms in our sample, we prepared a double-entry table (Table 10). The results show that in more than 70% of the sample companies, a maximum of 25% of their total exports was independent of the firm’s size. The results obtained from performing suitable tests, in this case Pearson’s r^2 , on the data regarding total turnover and export turnover in 1996 ($r^2=0,023$; $t\text{-valor}=0,442$; $p=0,659$), and 2001 ($r^2=-0,49$; $t\text{-valor}=-0,655$; $p=0,514$), enable us to state that the propensity to export seems to be independent of the firm’s size, since the correlation between the two variables is practically nil, contrary to what was proposed by Alonso and Donoso (1998).

Table 10: Association between the propensity to export and firm size (in percentages)

Size \ % of Exports	Micro-firm		Small firm		Medium firm	
	1996	2001	1996	2001	1996	2001
Below 25%	83%	78%	90%	78%	88%	73%
26% to 50%	7%	14%	3%	14%	5%	17%
51% to 75%	7%	6%	3,5%	5%	7%	7%
Above 75%	6%	2%	3,5%	3%	-	3%

% of Exports \ Size	Micro-firm		Small firm		Medium firm	
	Total	100%	100%	100%	100%	100%

4. Conclusions

More than half of the companies participating in the PIPE 200 program are small firms, most of them falling in the interval of between 10 and 30 employees. The rest of the companies are micro-firms, followed by medium firms.

Our empirical research seems to find a significant association between firm size (measured by number of employees) and the exporting activity, however, we find no clear relationship between size and the propensity to export, unlike other studies that have found such a relationship to be significant (e.g., Reid, 1980; Aaby and Slater, 1989; Gripsrud, 1990; Lefebvre, Lefebvre and Bourgalt, 1998).

We have found three possible explanations for the differences between the results of this study and those of other works. The first is that the intervals of employee numbers used for the categories or firm size differ from those that we used (0-9, 10-49, 50-249 and 250 or more for the micro, small, medium and large firms respectively, in our case, as opposed to 0-9, 10-99, 100-499, and 500 or more in the other works). We should point out that we applied the classification established by the European Commission in their recommendation 96/280/EC.

The second possible explanation refers to the fact that our population does not include consolidated exporters or a significant percentage of non-exporting companies. The final explanation may be that most of the reviewed works included SMEs and large firms in the same sample and mostly found a significant relationship between the two variables. However, we chose to exclude large firms from our study and found no such association in the cases of micro, small and medium firms.

Perhaps that relationship should be qualified in the sense that significant associations related to size are seen insofar as large firms show significant differences in their propensity to export compared to SMEs as a whole. However, that may not justify saying that there are significant associations between micro firms and/or small firms and/or medium firms, especially when all, or almost all, the firms are exporters. In this way, perhaps this offers an explanation of why 95.7% of large Spanish firms export, while the percentage falls to 30.7% of firms with fewer than 20 employees (Ortega and González, 2000).

Moreover, in the Spanish case, our review of the literature revealed only one study that examines the association between size and the propensity to export, and that work confirms the weakness of that relationship. The work of Alonso and Donoso (1998:24) show that “the relationship between size and propensity to export is [...] doubtful: the Spanish case confirms that lack of definition”.

As regards the evaluation of the possible relationship between firm size and a certain organizational complexity for international activity measured by the presence of the post of export manager or similar, our results support the idea of a correlation between firm size and an export department, as suggested by Alonso and Donoso (1998). In spite of the above, and analyzing each variable with firm size, we must state that there are significant differences related to sector. In this respect, service and food and agricultural product companies are

smaller than those in the other two macrosectors in the study, namely consumer goods and industrial goods.

There is also a significant association between firm size (measured by number of employees) and total turnover. Size and legal form also show a significant relationship insofar as, the larger a firm is, the greater the probability of it becoming a public company rather than a limited company. As regards the possible significant relationship between the profit margin (average net domestic and export profit margins) and firm size, our results confirm such an association where the larger the firm is, the lower its profit margin will be.

Finally, we should point out that this research work represents a starting point for the development of further studies. Those future studies, besides replicating this research in other national contexts, should include other variables of the export activity apart from the propensity to export and the existence of an export department, one example being the mode of entry.

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The Effects of Economic Crisis on the Global Travel Management Companies

Constanța ENEA

eneacostanta@yahoo.com

"Constantin Brâncuși" University of Târgu-Jiu

Abstract

The worldwide economic crisis has strong effect on Romania, which has a developed market economy, but an economy based on consumption and credit. What can we expect from the tour can not meet anyone. The rich suffer less, unfortunately there are the vast majority of the population affected by the economic crisis, which will bear its costs: unemployment - due to bankruptcies in the private sector, leaving investors to other countries etc. In this paper I have proposed to address new dimensions of management in the economic crisis at the strategic and tactical levels, and in particular at the operational level. I have presented aspects of the economic crisis in our country, by characterize the impact of crisis on the main sectors of national economy.

Keywords: crisis economic, globalization, business travel

JEL Code: M20

The organizational environments uncertain, turbulent, specific to economic crisis involve new accents of management instruments in order to achieve managerial effectiveness and efficiency and to this sense we scale new management by objective and management by exception. We also put emphasis on total quality management method and the need for change management by reengineering. Globalization, high flexibility, continuous improvement, tolerance for uncertainty is the general attributes of the new organizations that require a new managerial process.

The worldwide economic crisis has strong effect on Romania, which has a developed market economy, but an economy based on consumption and credit. What can we expect from the tour can not meet anyone. The rich suffer less, unfortunately there are the vast majority of the population affected by the economic crisis, which will bear its costs: unemployment - due to bankruptcies in the private sector, leaving investors to other countries, etc. All of these are: to be vulnerable in financial terms, since Romania's economy performed 19 years after a model of so-called "market economy" that had the privatization of state enterprises in all fields of activity: industrial, mining, communications, agriculture, tourism etc.

After 1989, for industrial development, private sector, attracting foreign and Romanian investors, infrastructure development and agriculture and tourism should be done by providing tax credits and low interest bank, with a grace period of at least 5 years. If these facilities were granted, the Romanian economy grows over these 19 years that have passed and there was no need to borrow from the IMF. Although the current economic and financial crisis seems far from exhausted and be forces, some analysts speak of a further crisis, caused by oil shortages will occur in 2013.

Thus, experts say, the future uncertainty exceed the magnitude of its present instability. The problem is, experts say that major oil concerns and fell on the one hand, production, decreased demand on the fund, and cut on the other hand, investment programs. "When things start to return to their groove, world economies will face an acute shortage of oil, the deficit, according to our calculations, will be installed in 2013.

This implies an explosion of prices for "black gold", which experts estimate IEA could climb in numbers inconceivable today, when the barrel cost around 44 dollars, that is \$ 200. Same sources as oil could raise the price to 148 dollars in the year 2009. To prevent this scenario, oil concernée must also carry out the investment plans. Currently, major oil producers, especially Arab states, were frozen, at least two to three years, 35 of the 130 projects for the operation of new deposits. In addition, OPEC has decided, recently, declining rates of production by 2.2 million barrels per day, the largest decline in history. The IEA experts believe that 2010 will bring the first signs of certain relaunch the global economy and hence demand for oil. Results of a study conducted by the IEA shows that 800 major oil fields, 350 in volume production decreases continuously. If by 2008, tourism was a less influential, since January 2009, the crisis starts to become more painful, especially during periods of deseasonalization (eg, January and February are months weakest in terms of tourism mass), and now all the segments will be further affected.

After twenty years we face a new high amplitude process generated by the crisis triggered last year in the U.S. and which affects more strongly the whole global economy.

There were many considerations on the essence of this crisis and its causes. The first reaction in the U.S. and in European countries has been recourse to state aid. First turned to this intervention of the state, was even President Bush jr., proponent of economic liberalism and deregulation, which proposed a massive aid from the state, a position strengthened by Obama. Similar measures were taken by the european states - Britain, France and Germany. It is known radical feedback's of Nicolas Sarkozy, who spoke about bankruptcy of "invisible hand" of the market and the need of state intervention.

American sociologist Immanuel Wallerstein⁸, is convinced that the current crisis is not similar to other crisis. Through their effects, we can say/assert that is even more severe than in the years 1929-1933. He talks about the "great times" period in the history when are succeed systems that regulate human relationships with material environment. He says that today we are in the phase B of a Kondratiev cycle, which began since 30-35 years, after a long phase from 1945 to 1975. In phase A the profit is given by industrial production facilities, in phase B, in order to create the profit, capitalism must finance again and recourse to speculation. We are at the end of phase B, when the material decline becomes real and when the balloons crack one after another: bankruptcies are proliferating, increasing the concentration of capital, unemployment increase and the economy advancing in deflation.

"Capitalism is omnivorous"⁹, it collects the profit where is more important at a moment in time. It is no satisfied with no small profit margins, but it maximizes, favoring the monopolies, such as recently in biotechnology and information technologies. Therefore we witnessing a crisis that is not only economic because it subsequently generates a suite of other crises, such as social crisis and the system crisis. The economic crisis is more increasingly felt

⁸ Wallerstein I, The Depression: A Long Term View, în Monthly Review, tome 61, no.1, 2009

⁹ Wallerstein I, The Depression: A Long Term View, în Monthly Review, tome 61, no.1, 2009

in the Romanian economy as a result of propagation of crisis effects facilitated by the globalization and worldwide markets. IMF has advanced a forecast of economic growth of -4% for 2009, and Minister of Finance used it to revise the GDP declining from 579 to 531 billion lei.

The last survey conducted among managers of the National Statistics Institute shows that for the period March to May 2009 are shaping a decreased activity in manufacturing, retail trade and services and a moderate reduction in the construction sector, compared with the previous three months. Preceding period (February-March 2009) in which managers have felt a worse economic situation compared to earlier months, from late 2008, when GDP growth slowed very strong. It finds that managers view working in the branches where they create 83% of GDP (Table no 1) coincides with the senior officials or foreign analysts and recession, if it is combined with available of personnel and price increases - resulting from the poll – seems like the stagflation.

Stagflation is a situation where, in an economy, inflation, recession or stagnation, and unemployment occur simultaneously. Mainly stagflation has structural causes, the result of wrong macroeconomic policies. Central banks can produce stagflation by increasing excessively broad money, and governments - through regulation of business and labor market.

A classic case is stagflation of global crisis in the world of 70s. It began with an unprecedented increase of oil price, but on the background of monetary policy and excessive tax "incentives", which sought to fight against the crisis degenerated into a spiral of prices - wages, same time with unemployment and the worsening recession.

Table no.1

The share of main resources categories to GDP constitute (%)

Categories of resources	2002	2003	2004	2005	2006	2007	2008
Services	46	46,9	45,9	48,6	48,6	50,2	49,5
Industry	27	24,7	24,9	24,8	24,5	23,9	22,9
Constructions	5,7	5,7	5,9	6,5	7,4	8,9	10,5
Agriculture	11,4	11,6	12,6	8,4	7,8	5,7	6,5
Net tax on product	9,9	11,1	10,7	11,7	11,7	11,3	10,6

Source : calculated on the basis of Eurostat data.

These data are pessimistic, confirmed by another survey/pool, on which Eurostat determines the confidence in the economy. According to data for March, the economic feeling indicator (economic feeling indicator - ESI) has reached the lowest level of all time (64,3 points). FSI is determined on the basis of trust in industry (40%), services (30%), construction (5%) in retail (5%) and consumer confidence (20%). And, in turn, confidence in the service and consumption shall be placed at historical minimum.

At the industry level¹⁰, the expectations on the production and orders are much weaker than in February. Equipment were used in proportion of 73,9% of capacity in the first quarter of this year, compared to 79.4% in the same period in 2008, and the number of months insured on orders decreased from 7,4 to 6,4.

¹⁰ „The financial week” newspaper, 6 april ,2009, page 8,9.

The volume of goods expected to be exported is declining sharply. In terms of services, in March 2009 is notable the dramatic reduction in demand compared to last three months, and predicts an even weaker trend for the next 3 months. Confidence in consumption is particularly devalues due to fears on entry into unemployment, and also the appetite of people to buy a new car or a home is declining exponential/very fast. Finally, traders perceive the current situation to be much better than the last month of winter, but it sounds bad future for them.

And builders report in March fewer less orders than in February, although out of winter season expect to a certain improvement. The pessimistic and gloomy background of economic crisis it is evident that stress and crisis of management¹¹, as a result of numerous failures of management practice, which ultimately lead to a basic change of management. Therefore, management in conditions of crisis, marked by turbulence, acquires new dimensions to tactical and strategic level, particularly at operational level. In the field office of forecasting, the priorities or succession of processing, regardless of field, are essential. They have a further calendar data plan or specific program activity. For this purpose, may be introduced a „ordomaster process”¹².

It requires a shift from *strategic planning to strategic vision*. Such strategic planning is based on a realistic assessment of what can be done on the organization and on a detailed planning, in which the strategy must be applied. In this sense, the strategy contains many details, with a guarantee of achieving it.

Also, the final outcome of the strategy is a little known part of the largest employers. Hierarchical strategy undermines competitiveness, designing an elite management, which leads to a demobilization of a large part of employees who no longer recognize the organization's purposes and is not actively involved, constantly in achievement of those. The strategic vision, in turn, transfers the management to fix the organization's goals and at the same time, create networks and skills necessary to be achieved, but leaves the task of the various organizational levels to identify specific methods to achieve these objectives. It follows that the orientation, strategic vision, transfer management aims to the operating procedures using the most appropriate circumstances and not by successive derivation. In conclusion, as we move from type "car" to the "body"¹³, strategic planning changes. The axis efforts to define the strategy moves to develop the skills to enable effective exploitation of resources organization.

Approach of modern development strategy is based on the following aspects:

- ✚ the identification means to fight against competition - new alliances, new processing systems;
- ✚ clear guidance, on the operational levels, employees agree details;
- ✚ continuous learning by the organization¹⁴ and progresses;
- ✚ understanding the difficulties of changing organizational behavior;
- ✚ organization is a whole that helps one part to another.

Management in condition of crisis, is given by the new characters of organizations, which are presented in the following table no. 2. The organizational turbulence zones, involve new

¹¹ Nicolescu O., Verboncu I., Management methodologies, University Publishing House, Bucharest, 2008, page16

¹² Moldoveanu G. , Dobrin C., Turbulence and organizational flexibility, Economic Publishing House, Bucharest, 2007, page 109.

¹³ Idem 5

¹⁴ Idem 4

accents of management instruments in order to achieve effectiveness and efficiency. So, the management by objectives (MBO) of the two essential steps of the method, namely the derivation of the objectives of the fundamental individual and to harmonize the resource with assumed commitments, focused, emphasized the second step. At each level should be derived objectively to verify the existence of the harmonization with the purposes followed, using including the method of negotiating in all its forms.

Tabel no.2

Main features	
<ul style="list-style-type: none"> - globalization/worldwide - high flexibility - continuous improvement, innovation - tolerance for uncertainty. 	
Management	Design of jobs
<ul style="list-style-type: none"> - leadership without control ; less from straight and assesment; more from facility, communication, of network work. - tolerance of ambiguity, trust in individuals 	<ul style="list-style-type: none"> - responsibility of persons and groups; - continuous learning; - work with large functions , on teams;
Structural features	Information operating
<ul style="list-style-type: none"> - plane structure; - decentralization; - network; - self organization; - the absence of internal borders; - consistency between structure and work processes; 	<ul style="list-style-type: none"> - integration of tele-communication technologies; - „electronic” organization.

Source: operating¹⁵

In the context of management by exception (MBE), the turbulent zones require "fall" the operations management at centers operators, to main makers at all functions, including control-evaluation, and not as the focus and approach of "exceptions", or benefic state of their existence. The methods presented and others from the management of other methodological device (MBP, MBB) make the first plan, the turbulence conditions, the decentralization as a way of strengthening the top management. It follows that the decision in an organization should be reconsidered on the road or circuit hierarchically, within the meaning of activities to attract centers operators, not to eliminate or reduce the excessive power of decision in the upper levels.

In the field of **organization** function is required to specify and redistribution of tasks at each hierarchical level. The old hierarchical organizational structure, with a large number of levels, is becoming more iron. In multi-hierarchical level structures, the problems are solved successively, decisions at the top pass through the entire network management, in order to get to the subject led. Management with many levels of hierarchical rule does not ensure effective control, by the peak management on the constantly changing situations, from the bottom level. Time to transmit orders and reports on their performance is relatively long. Length of changes is, in many cases, greater than the responses to change ($d_s > d_r$).

The coordination, in the turbulent environments, of the crisis is resulting in dynamic and results accentuated by the degree of parallelism of operations. This requires intensifying

¹⁵ Moldoveanu G. , Dobrin C., Turbulence and organizational flexibility, Economic Publishing House, Bucharest, 2007, page 109

horizontal links between departments of the same type or which ones meet the goals of which converged. In a limited time of diagnosis of the organizational system and indetermination, the preparing management decisions should be triggered at as low quality of the decision being determined by the degree of vertical coordination. Horizontal linkages allow deep analysis of organizational structures and elements of rationalizing them. Management decisions and performances are transmitted between performance levels, if and only if they affect the functionality. Horizontal links to information and facilitate groups on technical issues, consisting of members from several organizational subdivisions.

Training and motivation, as management function, is done based on priorities, based on prediction function. To control function level, the management processes are sum of TQM impact method. Total quality is a goal, an objective which must to mobilize all elements of establishment¹⁶. Total quality is a manner to approach an organization, a closing by working of elite, highlighting all forms of performance and relationship between industrial partners. It is a social revolution, both at working place, but an approximation, rigorously efficient, to the professionalism and success. It is not just related to a product or products, but to the entire activity of an organization, what it can or should make for a decisive influence not only the view of customers or intermediaries to final consumers, but also its reputation throughout.

In order to achieve the proposed objectives of total quality, the management company must follow a certain logic, which involves the following:

- ✚ nothing is perfect, so everything can be improved with the participation of the staff and all compartments;
- ✚ all the workers in an enterprise have equal importance in achieving total quality, each representing a "ring" that can strengthen or weaken the "quality chain".

Quality management attaches great importance to prevention activities in the broad sense, without forgetting the control of processes and outcomes and including the permanent improvements as a fundamental and defining item. A new approach against the continuous improving further is the rethinking. Michael Hamer and James Champy¹⁷ introduced the concept of reengineering/rethinking and signifies rethinking fundamental, radical redesign of business processes in order to achieve spectacular improvements in critical indicators of performance such as quality, cost, service, and speed. Reengineering has the redesign to process the current activity of all those who contribute to creating value and has been invoked as a major means of streamlining and modernizing the economic processes of the firm by fundamental conceive and radical redesign of them.

Conclusions

In the economic crisis conditions must rethink the process of management and in particular to begin the changes at the managerial functions.

On the basis of all the steps is the innovation process. Edmund Phelps¹⁸ said that "innovation is one of the things you can do in order to revert the level of economic activity. If we apply large-scale innovation - we can not recreate the internet boom, but if we do something like this we see a revival of the activities from management to marketing"

¹⁶ Falniță E., Total quality management, MIRTON Publishing House, Timișoara, 2007, page 39.

¹⁷ Hammer m., Champy J., Reengineering the Corporation : A Manifesto for Business Revolution , Harper collins, New York , 1993

¹⁸ Nicolescu O., Verboncu I., Management methodologies, University Publishing House, Bucharest, 2008, page16

The economic crisis is a crisis that resembles the letter U. Now we're down, but at a given time will climb again. The period through we pass it is now difficult for an entrepreneur, but there is still room for new and good ideas. For example, Tourism will be affected in the coming years of global economic crisis, as all prices will increase and people will be more careful when they spend money.

"Tourism will be affected in the coming years of economic and financial crisis in the world, which began first in the United States. This, as everything will be more expensive and people will have to be careful how they spend money.

There will be financial restrictions and economic, and security, there will be a decline of tourism. However, climate change and the price of barrel of oil are other factors that will affect tourism in the world". From the data we have at this time, it can be concluded that the holidays will be a setback.

After crystallisation the economic crisis, domestic Romanian tourism seems to be more interesting at this moment for Romanian tourists, but the products of the holiday destinations of foreign-only now are for sale so that it is premature to express.

The fact is that, at least for the first half of 2009, tourism events will be heavily affected, and because corporations have drastically reduced budgets for travel. These issues have been asked since October, November, December 2008.

Although the current economic and financial crisis seems far from exhausted and be forces, some analysts speak of a further crisis, caused by oil shortages will occur in 2013. Thus, experts say, the future uncertainty exceed the magnitude of its present instability.

The problem is, experts say that major oil concerns and fell on the one hand, production, decreased demand on the fund, and cut on the other hand, investment programs. "When things start to return to their groove, world economies will face an acute shortage of oil, the deficit, according to our calculations, will be installed in 2013.

This implies an explosion of prices for "black gold", which experts estimate IEA could climb in numbers inconceivable today, when the barrel cost around 44 dollars, that is \$ 200. Same sources as oil could raise the price to 148 dollars in the year 2009.

To prevent this scenario, oil concernée must also carry out the investment plans. Currently, major oil producers, especially Arab states, were frozen, at least two to three years, 35 of the 130 projects for the operation of new deposits. In addition, OPEC has decided, recently, declining rates of production by 2.2 million barrels per day, the largest decline in history.

The IEA experts believe that 2010 will bring the first signs of certain relaunch the global economy and hence demand for oil. Results of a study conducted by the IEA shows that 800 major oil fields, 350 in volume production decreases continuously.

If by 2008, tourism was a less influential, since January 2009, the crisis starts to become more painful, especially during periods of deseasonalization (eg, January and February are months weakest in terms of tourism mass), and now all the segments will be further affected. For periods in the tourism sector provides a decrease in income, but its magnitude depends on the duration of the crisis.

Some people in industry or other sectors of the economy, argue that the Romanian tourism might benefit from this crisis to develop, attracting tourists from Europe to destinations nearby, such as Romania or Bulgaria. It is however to mention that if we managed to attract tourists so far, this will not happen during the crisis.

Indeed, it may be an opportunity for countries with traditional tourism, which can reduce rates, but keeping and quality services. We, Romanians, are increasing prices because employment declines. And extrapolate not provide any travel cheaper or better.

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The Financial Structure Influence on the Cost of Capital and Enterprise Value

Nicoleta BĂRBUȚĂ-MIȘU

Nicoleta.Barbuta@uqal.ro
Dunarea de Jos University of Galati

Abstract

All enterprises seek to maximise the value of the assets and minimize the costs. Thus, they will explore the weighting of each way of financing (own funds or debt) in total financing, i.e. optimize the financial structure of the enterprise and maximising its value. On the other hand, they are trying to determine the weighting of each way of financing, that leads to maximising of the enterprise value and to minimise the cost of capital. So, the paper present the arbitrage used by an investor into an enterprise without debts and into an enterprise indebt, using the model *Modigliani and Miller*, relating to the financing policy neutrality towards the average cost of capital and the value of the enterprise.

Keywords: capital structure, cost of capital, tax savings, return on assets, return on equity

JEL Code: G32

1. Introduction

Theoreticians also discussed and discuss much on the edge of the optimal structure concept of the capital. Some of them (*C. Munteanu and C. Vâslan*, in the paper "*International investment. Introduction in the study of direct foreign investment*") even challenge the real base of the concept, stating that the proportion of the own capital and borrowed capital not influencing much the market value of an enterprise. In any case, we must admit that the determination of an optimal structure of the capital is a difficult problem. Although the modern financial theory explains the influence of the capital structure on the cost and enterprise value, it not offers an operational model for establish with precision which must be the optimal structure of the capital of an enterprise.

Beyond the live controversy that are in connection with the capital structure theory is deemed that for identifying the optimal is necessary to know the enterprise risks and estimated earnings that it will generate. Once being in possession of such information, it can get the optimal structure problem for finding the funds with the lowest cost. So, enterprises are trying to determine the weighting of each way of financing, that leads to maximising of the enterprise value and to minimise the cost of capital [9].

Regarding the optimal structure of the capital, in the paper "*Firm' Finances*", *N. Hoanță* said that: "The optimal structure of the capital is the structure that ensure an optimum balance between risk and income and, so, maximise the enterprise value. Shareholders or enterprise associates benefit from the capital structure change if and only if the company value increase after this changes. Thus, the heads of companies must choose the structure of the capital which they believe that will lead to increasing the firm value to be beneficial for the enterprise owners"[5].

Economists **Modigliani and Miller**, it's the Nobel prize for economics, based on a theoretically model have formulated the **first theorem** that the value of an enterprise is independent of its financial structure: "*In conditions in which there is no profit tax, the total market value of the firm is independent by the capital structure. The total market value is the expected future operating profits flow, updated with an appropriate rate of the risk class of the business in which the enterprise act*" [6].

The practice has proved that an increase in the financial lever have lead to an increase in the profit expected by shareholders. However, the increasing in the financial lever size has also, as a result a financial risk. In accordance with the models of *Modigliani and Miller*, these two factors are cancelled each other in the sense that the capital structure is irrelevant in determining the market value of the enterprise.

The conclusion of *Modigliani and Miller* that the enterprise value not depends on the capital structure relies on a number of assumptions, including the absence of any profit tax. If is introduced the profit tax, because of the taxation deduct of the interest, the enterprise which use the financial lever will be assessed at a higher value than an enterprise which does not seek to debt, under the same class of business risk and the same flow of the future revenues expected.

2. **Modigliani and Miller Model**

The capital always presented a cost whose impact has been found in the degree of development of the society. To create the gross domestic product is needed by the capital, capital which in turn to present a cost, and this cost is characterized by an impact on the development process at the micro and macro-economic level. If we recognize the cost using interest, dividends, the impact is reflected in the gross domestic product both categories of resources, as well as the categories of uses. On the categories of uses, we recognize this impact in the consumption on the one hand, and on the other side to the gross fixed capital (which we can consider a cost i.e. a cost of giving up to the consumption) [3].

One of theories which have been based on the explosive development of financial science and practice means the model of economists *Franco Modigliani and Merton Miller*, developed in 1958, relating to the financing policy neutrality towards the average cost of capital and the value of the enterprise, given only the level of flow and risk of future cash-flows. The major contribution of M&M on irrelevance is to draw attention to the manner in which the financial chooses might affect the value of shares. The financial decisions are important to the extent to which they affect the expected revenues, and the best choice is that maximise this revenues. Therefore must be decided as choosing a business affect the net profits expected and the interest expense [4].

The initial model starts from a series of **premises** [2], which have led to many controversies, but they are not reduced the theoretical and practical value of the model:

- ✓ in the financial market, operators have a rational conduct, seeking to maximise the usefulness function of their wealth: maximising the enterprise value, the shareholders wealth;
- ✓ the model does not take in calculation of the enterprise value, the revenue observed in the past, but the forecast of the future revenues;
- ✓ enterprises are classified in homogeneous groups from point of view of dividend per share, as anticipated revenue. Also, all enterprises of a homogeneous class are characterized by the same economic risk;
- ✓ enterprises operating in the financial markets which respect the atomicity condition;

- ✓ in each of the risk classes taken into account, the market value of a financial title issued by the enterprise must be proportional to income hoped for the envisaged enterprise;
- ✓ the financial titles are traded on a perfectly financial market.

The *conclusions* presented and demonstrated by *Modigliani and Miller* in 1958 are:

I. in the absence of taxation, the market value of the enterprise is independent by the capital structure, and in this context, the weighted average cost of capital is independent by the financing structure of the enterprise;

II. the rate of return on equity estimated for an enterprise with debts from class of risk i , is a linear function of rate debt: $r_{f_j} = r_{e_i} + (r_{e_i} - r_d) \times \frac{D_j}{CP_j}$, where: r_f = rate of return on equity; r_{e_i} = rate of return on assets of the enterprise j , for titles in the class of risk i (weighted average cost of capital); r_d = interest-rate (cost debts in the absence of taxation); D_j = enterprise debts; CP_j = own capital of the enterprise j .

The relationship above highlights that *an enterprise with debts will obtain a more rate of return on equity, to the same weighted average cost of capital*. The solution of debt burden of the enterprise must't be absolute, as the increase in the return on equity may be interpreted as a necessity charged by shareholders of the enterprise in debt to demand a premium of financial risk, as a result of the joint structure of financing adopted by the enterprise.

Thus, *Modigliani and Miller* take into account the market imbalance, considering that in those situations, investors will sell shares of the enterprise in debts and it will buy of those of the enterprise without debts, up to eliminate of the profit opportunities. This will occur when the values of the two firms will be equal and balance on the market is restored.

Still, offering an example to illustrate the neutrality of the financial structure, so the situation of imbalance in the financial market as well as in the balance, according to the model of *Modigliani and Miller*.

3. The imbalance in the financial market

Suppose we hold following information about the enterprise "A" S. A. – without debts and the enterprise "B" S. A. – with debts (Table 1.): EBIT of the two firms will be the same, in the value of 100,000 Euros, the rates of return on equity which remunerated shareholders of both companies are: $r_{f_A} = 25\%$ and $r_{f_B} = 30\%$. Values of own funds¹⁹ of the two firms will be of 400,000 Euros for enterprise "A" and of 233,333 Euros for enterprise "B". Thus, the value of enterprise "B" with debts appears higher than that of the enterprise without debts "A". Being in the imbalance in the financial market, investors may achieve profits without risk, by the operations of arbitration.

¹⁹ the value of own funds was calculated by updating the net profit to the rates which remunerated shareholders: Pr_{net_j} / r_{f_j} , where $j = \{A, B\}$, A, B representing the enterprises;

Table 1. Financial information from enterprises "A" and "B"

	Enterprise „A”	Enterprise „B”
EBIT	100.000	100.000
Interest expenses (15%)	0	30.000
Net profit ²⁰	100.000	70.000
Return on equity	25%	30%
The value of own funds	400.000	233.333
The value of debts	0	200.000
The value of enterprise	400.000	433.333
Debt rate ²¹	0	85,71%
Return on assets	25%	23,08%
The cost of capital ²²	25%	23,08%

Further, we study the process of arbitration: suppose an investor who owns 2 percent of the shares of enterprise with debts "B". He will receive 2 percent of the net profit of 70,000 Euros, i.e. 1,400 Euros, if he retains the enterprises shares, and the profitability on its own funds that he invested is 30 percent²³.

Suppose that the investor carried out following operations [1]:

- sold the shares of enterprise "B" with 4,667 Euros ($2\% \times 233.333$ EUR);
- increase its debts with 4,000 Euros, at a rate of interest to 15 percent; the personal debts to the report with its own funds is identical to that of the enterprise "B" (85.71 percent). So the level of financial risk is the same;
- with the amount of 8,667 Euros buys 2.17 percent²⁴ shares in the enterprise without debts ($2,17\% \times 400.000$ EUR).

The revenue obtained by the operation of arbitration will be:

- 2.17% of net profit of the enterprise "A": 2,170 Euros;
- the interest of 15 percent regarding to the debt of 4,000 Euros: 600 Euros;
- the gain obtained by those operations will be of 1,570 Euros, compared with 1,400 Euros as it would be obtained if he would have kept shares of enterprise indebt.

²⁰ it took into account the assumptions of the initial model's Modigliani and Miller (including taxation absence), excluding of hypothesis regarding to the perfection of the financial markets;

²¹ debt rate calculated thus: Debts / Own capitals;

²² actually represent the weighted average cost of capital (WACC), calculated thus:

$$WACC_j = k_{CP_j} \times \frac{CP_j}{CP_j + D_j} + k_{D_j} \times \frac{D_j}{CP_j + D_j}, \text{ where } j = \{A, B\}, CP \text{ represents the own capital, } D$$

represents the debts value, k_{CP} represents the cost of own capital and k_D represents the cost of debt, i.e. interest rate;

²³ the vale resulting from the report: $\frac{1.400}{2\% \times 233.333}$;

²⁴ the percentage has been determined to: $\frac{8.667}{400.000}$;

The return on equity is then 33.64 percent²⁵ for the same level of financial risk. However, in this case the financial risk is borne directly by the investor, instead of being indirectly, through ownership of shares in enterprise "B".

4. The balance on financial market

We assume that investors sell shares of the enterprise "D" enterprise and buy shares of the enterprise "C", until we get to a tie in the value of the two enterprises [10]. Data on the two enterprises are listed in the table 2.

Table 2. Financial data from enterprises "C" and "D"

	Enterprise „C”	Enterprise „D”
EBIT	100.000	100.000
Interest expenses (15%)	0	45.000
Net profit	100.000	55.000
Return on equity	20%	27,5%
The value of own funds	500.000	200.000
The value of debts	0	300.000
The value of the enterprise	500.000	500.000
Debt rate	0	150%
Return on assets	20%	20%
The cost of capital	20%	20%

If the investor achieves the same operations in arbitration [11], presented above, then:

- sell its shares to the enterprise "D" with 4,000 Euros ($2\% \times 200.000$ Euros);
- increase its debts with 6,000 Euros, at an interest rate of 15 percent, the personal debts being the same with the enterprise "D" (150%);
- with the amount of 10,000 Euros buys 2 percent shares in the enterprise "C" ($2\% \times 500.000$ EUR).

The gain of operation of arbitration will be in this case:

- 2% of net profit of enterprise "C": 2,000 Euros;
- the interest of 15 percent covering debt to 6,000 Euros: 900 Euros;
- revenue obtained from this operation will be of 1,100 Euros.

So, the investor get the same gain of 1,100 Euros, as in the case in which he would have kept the shares to enterprise "D" ($2\% \times 55.000$ EUR).

But if we introduce a tax rate of the enterprise profit by 33.33 percent then net profit will be reduced from $100.000 - 33,33\% \times 100.000 = 66.666,67$ Euros, what will cause an immediate reduction with 33,333.33 Euros in the market value of all enterprises financed by the capital

²⁵ the percentage has been determined to: $\frac{1.570}{4.667}$;

and reserves, as the enterprise "A". This is just such a transfer of wealth from shareholders of the enterprise "A" to the state [8].

The model of *Modigliani and Miller* constituted topic of discussion in numerous articles and books of specialty, mainly because it's restrictive premises. Thus, the *critics* of the *Modigliani and Miller* model refer to:

- ☞ the theoretical hypothesis to perfection markets, criticism claiming the imperfection on financial markets. This theory has a central role in the justification of the conclusions of Modigliani and Miller model, whereas the validation is conditioned on their intervention of the mechanism for arbitration, which involves a perfect substitutability between shares, possessing similar characteristics to the expected risk and profitability;

- ☞ the hypothesis of lack of any taxation, even the model authors considering necessary bringing corrections to the model conclusions in 1963;

- ☞ the hypothesis on steady of interest rates, over which the authors have returned to the corrections in 1963;

- ☞ the model does not carry any differentiation between the two types of debt – personal or one of the enterprise in which it owns a part of the capital – considered interchangeable perfectly but which, in fact, behave different risks and costs;

- ☞ the possibility of arbitration achieving is questioned and other costs which the authors model have not taken into account: the costs of bankruptcy, the agent, the signal, restrictions related to the institutional investors behaviour and the costs of trading.

In the 1963, incorporating the model demonstration in the presence of the profit tax, *Modigliani and Miller* shows that the financial structure influences the enterprise value (the value of an enterprises indebt being greater than that of an enterprise without debts), and increasing of the debt share in the capital structure would decrease the weighted average cost of capital, in the context of deduction of the interest by the taxable profit.

Also, the authors conclude that taking into account the profit tax get *debts compared with the financing of own funds*, because the interest costs are deducted from the taxable amount. This amount will be received by the enterprise creditors without being the subject of tax, but dividends are not deducted from the taxable basis, and the shareholders cashing only after paying the profit tax. Debts increase the return on equity, with double interpretation: on the one hand signal the increasing of the enterprise performance and, on the other hand, is constituting that a premise for increasing its own capital cost requested by shareholders of the enterprise indebt.

Modigliani and Miller demonstrates that the rate of return on equity for the enterprise indebt – increased by the profitability rate of the enterprise without debt – will be decisive of the return on equity for enterprise without debts, to that is added the effect of lever and taxation influence. The effect of lever occurs only if the rate of return on assets is higher than the interest rate before tax.

Related to the *debt burden and fiscal impact on the value of weighted average cost of capital and enterprise value*, the *Modigliani and Miller* conclusion was that, the financial structure is no longer neutral in the taxation hypothesis because the interest is deductible when calculating their taxable profits, the financial structure influences the enterprise value, and the debt making possible the increase of the enterprise value.

Demonstration starts from the review on realising of the net profit. Thus, for an enterprise without debts, the net profit is: $Pr_{net} = EBIT \times (1 - \tau)$, and for an enterprise indebt:

$Pr_{net} = (EBIT - r_d \times D) \times (1 - \tau)$. Updating the net profit on the basis of the return on assets for an enterprise in the class of risk i , ($r_{e_i} = r_f$), to which the market capitalise the revenues expected after tax, the value of the enterprise without debts (V_N) will be $V_N = \frac{EBIT \times (1 - \tau)}{r_{e_i}}$, and the enterprise indebts value (V_L), obtained by updating flows of exploitation due to shareholders and creditors will be: $V_L = \frac{(EBIT - r_d \times D) \times (1 - \tau) + r_d \times D}{r_{e_i}} = \frac{EBIT \times (1 - \tau)}{r_{e_i}} + \frac{\tau \times r_d \times D}{k_d}$, where:
 τ = the quota of tax profit;
 k_d = cost of no risk debts.

Noting with $B = \frac{r_d \times D}{k_d}$, the amount of indebt enterprise becomes: $V_L = V_N + \tau \times B$. If $\tau = 0$, then $V_L = V_N$, so the enterprise value is independent from the type of financing used. If $\tau > 0$, then the enterprise indebts value is greater than the value of the enterprise without debts, as a result of tax savings. It should be noted that the relationship above was assumed that the market value of debts is constant, without risk, and the enterprise has capacity to pay, so there is no risk of bankruptcy.

In the tax conditions, the increase of debt weighting in the capital structure would decrease the weighted average cost of capital, thus: $WACC_L = r_{f_L} \times \frac{CP}{CP + D} + r_d \times (1 - \tau) \times \frac{D}{CP + D}$. If $\tau = 0$, then WACC is invariably to changes in the capital structure. If $\tau > 0$, then WACC will drop by as much as debts are larger, but not below the cost of debts net of tax. Also, at a given level of debt burden, the reduction of WACC is more than the increase of the tax rate.

5. Conclusions

The decision for a specific structure of the enterprise capital must take into account of a series of **risks associated with debt burden**, risks that can offset or even cancel its positive effects. The identification and quantifying of these risks through risk primes represents a step very important in the estimations rates of updating the cash-flows generated by the enterprise. Thus, the best known risks are:

➤ *risk of obtaining losses*: the tax savings can be obtained only if the enterprise obtain an exploitation result superior of these expenses, i.e. the return to assets is higher than the interest rate on loans taken out. Also, once to the increase the debt is increased the risk that the exploitation profit to cover the high amount of interest expenses. In these conditions, the discount rate of tax savings will increase once with the degree of debt, including in its size the risk to obtain of loss;

➤ *the constraints of relations with third parties*: the excessive increase of the debt burden constitutes an alarm signal both to creditors, as well as business partners. A financial structure disrupted focused more on resources attracted from creditors, determined an increase of the enterprise risk.

➤ *the liquidity risk*: occurs when the financing policy was drawn up without coherent in the enterprise strategy and with the foreseeable future developments of the relations of current business and the lack of liquidity leading to cessation of payments situation;

➤ *the risk of bankruptcy*: once with increasing of debt burden, increases and the risk of an enterprise to go into default. A transient crisis to the operational level or enterprise management is much more difficult to control in this case. In a certain degree of debt, the benefits from tax savings will be an increasing of costs associated with risk of bankruptcy.

Managers can guarantee a certain level of financial performance of the enterprise when granting credit, but it is possible that, in the future, their behaviour to amend and the creditors to record a loss in the value of their investment in the borrowed enterprise.

The creditors with experience will anticipate these risks and will adjust the level of interest rates required whereas the direct cost of bankruptcy diminishes the enterprise value and a large part of these costs are incurred, in the end, by creditors. This fact makes them to add a risk prime to the interest rates charged to sums borrowed by enterprise. Paying this risk prime, the shareholders pay, in fact, the costs of bankruptcy estimated, whenever issued risky debt. That's why they should consider this risk prime a cost that balance other benefits associated with financing through debt.

In practice are known several methods that could be reduced the costs associated to financing with debt: the financing through bank credit or loan issuance of bonds, contracts with managers on granting the compensation for eliminate the distortion trends of the enterprise investment scheme and agreements that specify the priority right of debt, the maximum amount that an enterprise can distribute as dividends in the form and/or a maximum limit for the sale of assets.

From the studies, resulted the following [7]: in Germany and Japan, changes in the estimation of the share value influence the risk structure in decisions of investment in a small measure, while in Canada and U.S., changes in shares evaluation have an important effect on the structure risk of the enterprise investment.

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An approach for the evaluation of rural governance in Cameroon: are community forests really forests for the communities?

Hilaire NKENGFAK²⁶

nkengfack@yahoo.fr

University of Dschang - Cameroon

Claude NJOMGANG

claudenjomgang@yahoo.fr

University of Yaoundé II/Soa - Cameroon

Daniela SARPE

d_sarpe2000@yahoo.fr

"Dunarea de Jos" University of Galati - Romania

Abstract

The aim of this paper is to evaluate the contribution of the traditional exploitation of timber, in a community framework, to the respect of governance principles in actions for the fight against poverty in some rural communities in Cameroon. In 1990, the government of Cameroon adopted laws on the freedom of association that authorised teaming up for the search of possibilities for a better economic welfare of populations. It is in line with this that in 1994, a new forest law which authorises willing communities to organise themselves and request the government to grant them a portion of the national forest of the public domain to be managed by them and for their personal interest. Also, and with the help of the international community, Cameroon elaborated in 1998 its first poverty reduction strategy paper that encouraged amongst others, community actions in the search of solutions to the economic crisis that stroke the country. Through the application of a logit model to the responses collected through a survey carried out on a sample of 200 individuals of the East region of Cameroon, it was noticed that timber exploitation in a community framework does not necessarily lead to the strengthening of the links of belonging to a common community, and to the equitable redistribution of revenues from the exploitation of the community forest.

Key words: Community forests, gender, equity, governance, fight against poverty, participation.

JEL codes: Q230, R200.

1. Introduction

Until 1994, timber was essentially exploited by large industries using heavy and expensive machinery. In order to insure the profitability of their investments, they overexploited the most demanded species and destroyed on their way the less expensive ones. "The industrial exploitation of timber follows more a logic of profit maximisation than that of a participative management and the equitable distribution of revenue" (Auzel and al., 2001). Traditional exploitation in this study is defined as the exploitation of timber using engine saws and the

²⁶ Corresponding author; Senior Lecturer/ Researcher and Consultant in Environmental Economics and Natural Resources Management; P. O. Box 110 Dschang – Cameroon; E-mail: nkengfack@yahoo.fr; Tel.: (+237) 74 52 37 12 / 96 43 45 19; Fax: (+237) 33 45 12 02; Member of "International Society of Ecological Economics" (ISEE) based in West Allis (Wisconsin State, USA) and "African Society of Ecological Economics" (ASEE), based in Nairobi (Kenya); Focal Point Representative at the Faculty of Economics and Management, University of Dschang-Cameroon of Global Water Partnership (GWP) based in Stockholm (Sweden).

transportation of sawed-up timber on human backs. It therefore refers to the exploitation of the resource using rudimentary means which is contrary to industrial exploitation that uses heavy machinery to fell and transport the timber.

Following the wind of democratisation from Eastern Europe in the early 90s, Cameroon adopted a series of laws on the freedom of association that prone objectives of solidarity and teaming-up in different actions for the fight against poverty.

It's in this context that the new forestry law adopted in 1994, and its decree of application signed the following year provided for the creation of community forests. Furthermore, to reinforce this law, a decision of the minister in charge of forest in Cameroon signed in 2001, gives a right of precedence to neighbouring village communities on any forest susceptible to become a community forest. This right is that of pre-emption. However, the first condition for the application for the attribution of a community is that it emanates from a legal moral entity.

More than a decade after the beginning of this new experience, we thought it necessary to make a sort of evaluation of the real impact of this type of exploitation on actions to develop the capacity of villagers in the domains of forestry techniques, on the capacity to reinforce social cohesion, equity, the promotion of gender and governance in such organisations.

2. Theoretical justifications for a community management of forest resources.

The exclusive exploitation of forests by large industrial exploiters led to at least two problems. Firstly, that of the sustainable management of the timber resource, and secondly, that of its weak contribution to local development. "Populations living in forest zones are among the most marginalised groups of the Cameroonian society despite a favourable biophysical environment. The massive exploitation of their timber has brought less to them in terms of the amelioration of their standard of living. About 66% of the populations of Cameroon residing in forest regions live below the poverty threshold...." (Brown and al., 2000). Therefore, there exists a paradox between the ecological wealth of nations and the economic poverty of forests villagers (Buttoud, 1994). The introduction of the concept of forests managed by communities had as objective to include neighbouring populations in the management of their forests in order to gain what they need for their economic and social welfare, without leaving out the capacity to protect their forest ecosystem.

2.1. Principles of participative management

As regards studies relative to the fight against poverty, the capabilities approach developed for the first time by Amartya Kumar Sen (1985) brought new perspectives with respect to the monetary approach that existed until then. The fight against poverty therefore has a multidimensional connotation (Ningaye and al., 2007). According to Sen, the founder of the capabilities approach, it is no more sufficient to measure poverty in terms of access to basic goods (water, health, education, shelter, electricity etc), of resources or real revenues as it has always been the case. Even though this approach is in relation with instruments for the realisation of welfare, they are made up only of means of liberty (Lachaud, 1992).

Emphasis is henceforth placed on increasing basic functional capabilities to attain certain acceptable minimums, that is, on the increase of possibilities of choice (freedom of choice) as well as the amelioration of material wellbeing. Therefore, functions such as to be sufficiently nourished, to be in good health, to be educated, to be well sheltered, etc., being elements of welfare, faculties or capabilities reflect the freedom to follow these objectives, and can have a direct role in welfare since to chose and decide are equally part of life (Lachaud, 1999). Following Sen and the notion of capabilities more developed in its 1991 and 1995 studies, other authors have developed a number of principles that should accompany the monetary perception of poverty and increase the efficiency of the fight against poverty. As such, Rougier

(2001) advocates that macroeconomic and sectoral policies for the fight against poverty should not be independent. In fact, poverty is one of the major causes for the overexploitation of the forest. But on the other hand, it can also be the consequence of the overexploitation of resources. This reciprocal causality has immediate economic policy implications. Economic policy and forest policy are therefore not independent, the former being a necessary prerequisite for the latter. Another principle for the fight against poverty is that of equity in both revenue and access to resources (equitable redistribution of the fruits of growth), in terms of gender (male/female), in spatial terms (rural/urban), in terms of social class (rich/poor), and therefore in economic opportunities, and in its intra and intergenerational dimensions. The principle of participation is also considered as an important factor in the fight against poverty. It stipulates that good programmes should encourage concerned local populations to make choices and act on participative bases to improve their living conditions. This implies the awareness of possessing a potential power at the individual and collective level (Nkengfack, 2007). In fact, participative democracy sought in such organisations leads probably to high quality growth (Tanzi and Chu, 1998). The concept of community forest is in line with this.

Finally, the principle of governance encourages democracy and the good management of public affairs. Despite the multiple actions of international funding agencies and States, poverty and exclusion still persist in Africa. This denotes the inconsistent results obtained up to now of policies for the fight against poverty. Actually, despite successes in the domain of economic growth, Structural Adjustment Programmes (SAPs) have led to the pauperisation of the populations (Anoukaha and al., 2003). Concerning governance, even if rapid and sustainable growth of GDP has been obtained in non-democratic settings (the Chinese and South Korean experience), it seems that democratisation and the fight against corruption are necessary, though not sufficient, conditions for any action on the real causes of poverty. Meanwhile, there are acute problems in the management of revenues generated by community forests (Maharjan, 1998; Dahal and Capistrano, 2006). Bearing in mind these main principles, the government of Cameroon elaborated a reference document that put together the country's multisectoral approaches for the fight against poverty.

2.2. Community initiatives

Community participation is one of the approaches to fight externalities linked to the exploitation of natural resources. It requires that local populations be fully included in the search of their welfare. In fact, with the promulgation of law no 90/53 of 19 December 1990 on the freedom of association, NGOs intervene in various aspects of social life (public liberty, protection of human rights, protection of the environment, defence of the rights of children and women) and also take part in participative development.

On the 14 of August 1992, the law on cooperative societies and common initiative groups (CIG) was promulgated, followed on the 22nd of December by that on Economic Interest Groups (EIG). All these laws have as objective the enhancement of solidarity and teaming-up which are factors of dynamism and development. The PRSP (1998) also presents the characteristics of poverty in Cameroon as well as the different actions undertaken by the public authorities to fight the ill and the community forest constitute a way out, especially in rural zones (Pnud-Cameroun, 1999).

2.3. The concept of community forest

2.3.1. Presentation of the concept of community forest

Community forestry is an instrument of forest management that delegates power to local communities. Law²⁷ no 94/01 regulating forest, fauna and fishery was adopted in Cameroon on

²⁷ Subsequently referred to as the Law and the Decree will stand for Decree no 95/531 PM of 23 August 1995.

20th January, 1994. The following year, the Government signed the Decree no 95/531 PM of 23rd August 1995 fixing the modalities of application of the forest Law. These two important texts marked a new era in the exploitation and the conservation of forest resources and at the same time defined the procedures and applicable administrative norms on which the attribution and management of forests depend (Minef, 1998).

- Definition of community forest

Hobley and al, (1996) define community forest as “a process by which communities of forest users protect forests of the public domain in partnership with the government”

The new forest policy of Cameroon defines community forest as “a non permanent forest of the public domain, which is subject to a management convention between a rural community and the administration in charge of forests. The management of this forest is done by the concerned rural community with the technical assistance of the administration in charge of forests” (Art. 3, al. 11 of the Decree).

According to Bigombé Logo (2002), community forests can also be seen as a set of dynamic processes of the inclusion of rural communities in the management of forest resources, with the aim of contributing to the improvement of their living conditions and to promote local development.


In a similar manner, the Decree defines the management convention of a community forest as being a contract by which the administration in charge of forest grant to a community a portion of forest of “the national domain, for its management, conservation and exploitation in the interest of this community. The management convention is accompanied by a Simple Management Plan (SMP), which outlines activities to be carried out.” (art.3, al. 16).

In all these definitions, solidarity and the inclusion of everyone in the search of collective and individual interest are the key words in the understanding of the concept of community forest.

- General dispositions relative to community forests

Communities benefit much from forests. In fact, “forests products of all sorts resulting from the exploitation of community forest belong entirely to the concerned village community”²⁸. “Consequently, all products, resources, animal and plant species, fishing products as well as special products, except those forbidden by the Law are considered as being the property of the local community”²⁹ according to the spirit of the Laws of 1990, 1992, 1993 (Minef, 1998 and 2002).

- Legal conditions for the creation of community forests

-  Legal personality of the applicant

The application for the attribution of a community forest should come from legal moral entities. The Decree stipulates that “the community should have a moral personality of a form recognised by the legislation in force” (Art. 28, al.3). Acceptable legal entities can be in the form of associations, cooperatives, Economic Interest Groups (EIG) or Common Initiative Groups (CIG).

-  The prior creation of the legal entity

The legal entity should be officially created before the consultation meeting preceding the application for the creation of a community forest. The statutes of the legal entity chosen can be modified if need be. They are thus flexible to subsequent eventualities (Minef, 2004).

²⁸ Art.37, al. 3 of the Law.

²⁹ Community forests attribution manual of procedures, MINEF, April 1998.

According to article 28 of the Decree, all the components of the concerned community should be consulted on the question of the management of a community forest. Consequently, the legal entity chosen should be representative of all the components of the community and not just a small group of persons.

3. Problem Statement

For a long time in the country, the state was the owner and exclusive manager of forests resources (Djeumo, 2001). Around the state were forest exploiters and other elites who accumulated wealth at the detriment of the State and especially the local populations. Even though, certain communities participated in forest management for centuries, the explicit political right to do so dates, for the majority of them, only to two decades. But this participation was so weak that it led to the marginalisation of the local population in forests exploitation (Bigombé Logo, 1998). In fact, this marginalisation started right back during the French colonial period.

The new forest law of 1994 had as objective to comfort the economic, ecological and social functions of Cameroonian forests, three functions that are indispensable to an integrated management of forest resources. An important innovation in this law is the wish to include rural populations in the implementation of this policy notably through "the promotion of forests of communities". The aim here is to guarantee these communities, revenues directly perceived by them while protecting the vegetation cover from unscrupulous exploitation.

In this study, we are interested in the social function of the forest. As such, the main research question is the following: does the traditional exploitation of timber by the local communities improve social cohesion, reinforce capacities in forestry techniques, improve the respect of equity and the good management of resources generated from this exploitation?

4. Objectives of the study

4.1. General objective

The main objective of this study is therefore to see whether the traditional exploitation of community forests improve the lives of concerned populations in the social aspect.

4.2. Specific objectives

To attain our general objective, we have elaborated the following successive specific objectives:

- ✚ Apprehend the advantages generated by participative management of the forest
- ✚ Analyse how revenues generated by the forest are employed and distributed especially when we consider the indelicate roles played by some elites and other influential members of the community as concerns the management of financial resources. In fact, corruption and embezzlement are common practices in this type of organisations. It is not enough to identify the costs and benefits of a community forest but one should also "analyse the way they are distributed among the users and the other participating parties in the management of a community forest" (Maharjan, 1998)
- ✚ Evaluate the place of the Woman in the exploitation activities of the community forest
- ✚ Evaluate capacity building activities in the domain of forestry and on the improvement of the formal educational level of the populations.

5. Hypotheses

By allowing the exploitation of timber in the hands of local communities, the 1994 law implicitly admit that this new approach will strengthen a whole set of links between members of the community (Nkengfack, 2008). In fact, one of the main exigencies for the creation of a community forest is the coming together under a development legal entity or association.

Coming together in such entity strengthens community spirit that can be a stabilising factor of social cohesion. The main hypothesis of this study is therefore the following: the traditional exploitation of forest in a community framework strengthens values of solidarity, equity, justice, participation, social cohesion and governance.

6. Methodology and case study

6.1. Choice of the statistical model

We started from the hypothesis that every member of the community has a preference with respect to the two modes of forest exploitation: Should the community maintain the exploitation of the forest in the community form or on the contrary grant it to an industrial exploiter through a logging contract?

The answer of each member in favour of one or the other alternative informs us on the utility that he might gain from each type of exploitation. Supposing that each member is rational, he will only choose the alternative that maximises his utility, i.e. his welfare.

The dependent variable (y_i) that is « maintain the exploitation in the community form » is a dichotomic discrete variable that can take the value 1 if one opts for the first alternative (traditional community exploitation) and 0 if it is the other alternative that is chosen (exploitation through the logging contract) and the elements that motivate this choice are both discrete and qualitative values. Discrete values concern the revenue of agents, the size of households, the age of the respondent, revenues from the exploitation of the community forests, meanwhile qualitative variables are made up of the type of house, level of education, how sawed-up wood is transported, the population capacity building activities in the domain of forestry techniques, the promotion of gender in this type of activity, their concern about the protection of the environment, etc.

It is therefore necessary to identify a model that would have as main characteristic the forecasting of a value between 0 and 1. The probit and logit models are recommended for this type of problem. Both models are equivalent but differ at the level of their distribution functions. The probit model has as distribution function the density function of the normal law while the logit model has as cumulative curve the density function of the logistic law. They are non- linear statistical models with the objective of keeping the choice of the probability of choice in the interval[0, 1] ³⁰ (Benavent, 1993).

For the specific case of this research, the logit model has been chosen for the manipulation facilities that it offers since the cumulative function of the logit model is easier to manipulate compared to the function of the normal law. The density function of the logistic law is symmetrical about 0 and is bell-shaped. This is similar to the density of the standard normal curve (Griffiths and al, 1993, page 751). Also, the relationship between chances of success and failure that are generated by logistic regressions known as “Odds Ratio” (OR) can be interpreted easily. An “Odds Ratio” superior to 1 indicates that the studied phenomenon has a great chance to be realised (Davies and al, 1998; Bland and al, 2000; Westergren and al, 2001). The logistic function also allows the treatment of discrete independent variables, qualitative or continuous. It does not border about hypotheses of normality and homoscedasticity of ordinary linear regressions.

³⁰ The main limitation of the probabilistic linear model is at this point since for large values of x_i , the corresponding probabilities at times lie out of this interval.

6.2. Model specification

The logit model is thus the following:

$$y_i = \begin{cases} 1 & \text{if the individual opts for exploitation in a community framework} \\ 0 & \text{if the individual opts for industrial exploitation through logging contracts} \end{cases}$$

Supposing that individuals are rational, we have $y_i = \begin{cases} 1 & \text{si } U_{i1} \geq U_{i0} \\ 0 & \text{si } U_{i0} > U_{i1} \end{cases}$

Where U_{i1} is utility that individual i gains from traditional exploitation and U_{i0} , utility gained from industrial exploitation

By so doing, we start from the density function of the random variable y_i .

$$g(y_i) = P_i^{y_i} (1 - P_i)^{1-y_i}, \quad y = 1,0 \quad (1)$$

From (1), the probability to choose the alternative 1 is given by

$$g(1) = P[y_i = 1] = P_i \quad (2)$$

While that to choose 0 is

$$g(0) = P[y_i = 0] = 1 - P_i \quad (3)$$

The mean and the variance of such a law are given respectively by

$E[y_i] = P_i$ and $\text{var}(y_i) = P_i(1 - P_i)$.

The problem to be solved becomes that of explaining the variation of y_i from one individual to another through the explanatory factors of the phenomenon. The model to be estimated will be the following:

$$Y(\text{maintaincf}) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_k X_k + \mu \quad (4)$$

Where the "X" are explanatory variables and β , their respective coefficients.

Instead of estimating Y_i , the objective is to estimate $p(Y_i=1)$, where p_i is between 0 and 1. The problem is that a probability measure is limited to the right and to the left. It is therefore necessary to look for a way to suppress these limits. These limits are removed through the logit of P . Hence, we note:

$$\text{Logit} = \text{Log}(\text{odds ratio})$$

$$\text{Logit} = \text{Log}\left(\frac{p}{1-p}\right)$$

(5)

The model that we will estimate therefore takes the form:

$$\text{Log}\left(\frac{p}{1-p}\right) = bX = Z \quad (6)$$

After appropriate manipulation of (6), we obtain a model that express p in function of Z :

$$p = \frac{e^z}{1 + e^z} = \frac{1}{1 + e^{-z}} \quad (7)$$

The first form of the logit is the linearization of this second expression.

6.3. Investigation Methodology

6.3.1. Sampling

The East region of Cameroon is the main forestry domain of the country where major logging companies operate. Also, it is there that the ever first community forestry experiences began, hence the choice of the area of study. The sampling technique used in this study is that of

random, stratified and proportional sampling. In fact, the total population of the three villages of the study (Kongo, Ngola-Achip and Moangue le Bosquet) is estimated at 1717 inhabitants. Considering constraints in human and financial resources, we limited the size of our sample at 200 individuals. This corresponds to a sampling rate of 11.64%. In order to determine the number of individuals to question in each village, we considered its weight in the total population after which the individuals were numbered and selected using a table of random numbers.

Table 1. Sampling plan

Villages	Population of each village	Weight of each village in total population	Number of individuals investigated
Kongo	378	22	44
Ngola-Achip	715	41.65	83
Moangue le Bosquet	624	36.35	73
Total	1717	100	200

Source: Authors.

As such, the population of Ngola-Achip corresponds to 41.65% of the total population giving 83 persons to be questioned. With 22% of the sample, 44 individuals were questioned in Kongo. At Moangue le Bosquet, 73 individuals were investigated corresponding to 36.35% of the total population.

6.3.2. Survey data

The analysis was carried out on the basis of primary data collected from our field survey in the region of Lomié, East-Cameroon, between the 28 April 2006 and the 30 May 2006. We mean microeconomic data on the socioeconomic characteristics of the survey as well as its concerns of environmental order.

6.4. Analysis of the data

To perform the regression of the logit model, we adopted certain methodological precautions. They consisted of carrying out an exploratory analysis on the ordinal variables to verify the consistency of the model to be used and to search for multicollinearity. We also test the stability of coefficients to see whether they significantly differ across different villages through the Chow test.

The exploratory analysis consisted of subjecting all ordinal qualitative variables to a Multiple Correspondence Factorial Analysis (MCFA). The aim was to select the most discriminating variables that bring pertinent information to the model. This analysis was performed with the SPAD version 4.01 software. The modalities of variables were coded sequentially, i.e. in a way that the evolution of the phenomenon is presented through its modalities. As such, from the observation of the coordinates of successive factorial axis, we joint some modalities together to increase information. The modalities of variables as well as certain variables finally retained are those that satisfy the exigencies of the exploratory analysis.

Given that ours sample was made up of three sub-samples corresponding to the three villages studied, we carried out a stability test of the coefficients to verify whether the results of the analysis does not vary significantly from one village to another. The test chosen is that of Chow. Initially, the Chow test as was constructed in 1960 is based on the comparison of parameters in two sub-populations (Wikipedia Encyclopedia, 2006). This is why we thought it logical to create tree combinations of two sub-samples between the three villages studied.

6.5. Test of validity of the model

After performing the logit regression, the next step is to evaluate the model that was constructed. To do this, the literature proposes many different methods of evaluating a logistic model. These are the likelihood test and discriminance analysis (Benavent, 1993). We have chosen to use the likelihood test to verify the validity of the specified model. By this method, a good model is one that has a large likelihood ratio, that is, it tends towards 1. The test used is Pearson's goodness of fit test that has as statistic:

$$Z^2 = \sum \frac{(Y_i - p_i)^2}{p_i(1-p_i)}$$

To test the fitness of the model, we write the following hypotheses:

$H_0: Z^2 = 0$ against $H_a: Z^2 = 1$, with Z^2 distributed like a Chi-square with $N-p$ degrees of freedom and where N is the size of the sample and p the number of parameters. The decision rule is the following: if the probability is less than the chosen risk level α , we reject H_0 admitting that the model is not good. If on the contrary, this probability is greater than α , we accept H_0 that the model is good.

7. Results and interpretation

Considering the strong multicollinearity between independent variables, certain variables, even the ones deemed important, had to be removed from the logit model. The data were analysed using Stata 8.0 software. Finally, we verify if there is any link between the dependent variable "maintaincf" and some social characteristics that we have called "capabilities" in the literature. The characteristics considered are age of the respondent, sex, level of education, number of people in charge and the revenue of the head of household, food expenditure and the amelioration of habitat due to the exploitation of the community forest. At last, we also considered how the populations of the exploitation of the CF on their welfare.

7.1. The model retained

After removing the variables of multicollinearity, the retained model is the following:

logit maintaincf sexe_1 age_2 age_3 nivedu_1 stamat_1 nomper_1 nomper_3 rev2_2 rev2_3 depsant2_1 depsant2_2 depnut2_1 depnut2_2 depnut2_4 depscol2_1 depscol2_2 logemfc_1.

The results of the regression is summarised in the table below. This table also bring out the « odds ratio » that allow and easier interpretation of the results.

Table 2: Regression results of logit model and likelihood test.

Variables	Coefficients	Odds Ratio (OR)	Standard deviation (of OR)	p-value	Level of significance
sexe_1	-0.756	0.927	0.402	0.862	*
age_2	0.653	1.922	1.126	0.264	*
age_3	0.349	1.419	0.801	0.535	*
nivedu_1	0.266	1.305	0.615	0.572	*
stamat_1	0.595	1.814	1.020	0.289	*
nomper_1	0.092	1.096	0.549	0.854	*
nomper_3	1.116	1.889	0.385	0.002	**
rev2_2	0.100	1.105	0.517	0.831	*
rev2_3	0.025	1.025	0.749	0.004	**
depsant2_1	0.449	1.566	1.760	0.689	*
depsant2_2	-0.773	0.461	0.529	0.500	*
depnut2_1	-1.332	0.263	0.157	0.025	**
depnut2_2	-1.993	0.136	0.107	0.011	**
depnut2_4	-2.194	0.111	0.103	0.018	**

depscol2_1	1.342	2.800	2.800	0.066	*
depscol2_2	2.681	14.606	13.394	0.003	**
logemfc_1	-0.181	0.834	0.380	0.691	*
cons	0.566	-	-	0.733	*
Prob>Chi2		0.000			***
Pseudo R²		26.11%			-
Pearson's likelihood test		Pearson chi2(150) =	179.27		-
		Prob > chi2 =	0.0417		**

Source: Own calculations.

***: Significance at level $\alpha=1\%$

**: Significance at level $\alpha=5\%$

*: Significance at level $\alpha \geq 10\%$

With,

sexe_1:	sex of the respondent==female
age_2:	age of respondent==25-35 years
age_3:	age==35 years and above
nivedu_1:	level of education== never been to school and primary school level
stamat_1:	marital status of the respondent== others (not married, bachelor or widower)
nomper_1:	size of household==0-3 individuals
nomper_3:	size of household==10 individuals and above
rev1_2:	income before CF==50 000 F - 100 000 FCFA ³¹
rev1_3:	income before CF==100 000 F and above FCFA
depsant2_1:	health expenditure after CF==0 – 25 000 FCFA
depsant2_2:	health expenditure after CF==25 000 - 100 000 FCFA
depnut2_1:	expenditure on food after CF== 0 – 5 000 FCFA
depnut2_2:	expenditure on food==5000 - 10 000 FCFA
depnut2_4:	expenditure on food==15000 FCFA and above
depscol2_1:	school expenditure after CF==0 – 25 000 F
depscol2_2:	school expenditure after CF==25 000 F - 50 000 FCFA
logemfc_1:	no house built or ameliorated after CF== no house CF
logemfc_2:	house built or constructed thanks to CF== house cf

7.2. Econometric validation of the model

The econometric validation of and estimation is done in two phases. The validation of the model, in general, and the validation of individual coefficients.

7.2.1. Validation of the model in general

From the results, the exogenous variables explain at 26.11% the choice in favour of exploitation in a community framework. This is the pseudo R² that plays here the role of the coefficient of determination since we are using a logit model. This rate is not high but it accommodates well with the nature of the study. In fact, the study used both qualitative and quantitative variables. This makes our model different from a purely quantitative model, that is, a forecasting model for which the R² is extremely important. Also, the data collected from certain economic agents such as households for a short period of time (transversal data) generally produce very low R² (Griffiths and al, 1993; Page 253).

Again, we have a chi2 significant at 1%. It plays the role of Fisher in ordinary regressions. Among others, the constant is not significant suggesting a good specification of the model.

³¹ 1 Euro = 655.957 F CFA.

Finally, the Pearson likelihood test (goodness - of- fit) give a statistic of 0, 0417 that is significant at 5%.

Still with the aim of verifying the global significance of the model, we carried out the Chow test considering the fact that our sample is made up of three sub-samples. If calculated Fisher, that is, $\frac{(S_c - (S_1 + S_2))/k}{(S_1 + S_2)/(N_1 + N_2 - 2k)}$ is greater than the critical value read from the table

$(F_{(k, N_1+N_2-2k)})$ at a given level α , we reject H_0 and the conclusion is that a study of the phenomenon using the sub-samples is more appropriate.

Table 3. The Chow test results

Degree of freedom	First test (Kongo/Ngola)	Second test (Kongo/Moangue)	Third test (Ngola/Moangue)
S_c	23.264	15.174	21.568
S_1	5.775	5.775	11.709
S_2	11.709	6.551	6.551
K	19	19	19
N_1+N_2-2k	81	71	110
F_{cal}	1.548	0.960	1.125
$F_{theo. at \alpha = 5\% level (read)}$	1.96	1.97	1.92
Decision	Do not reject H_0	Do not reject H_0	Do not reject H_0

Source: Own calculations.

S_c is the constrained variance of the regression for the whole set of the three villages; S_1 and S_2 are respectively the constrained variances of the regression in each village of the pair of villages taken into consideration. N_1 and N_2 are respectively the number of individuals in each pair of villages taken into consideration.

From the results in table 3, all the F-calculated are less than the F-read, thus H_0 is not rejected and the model is accepted in the form of a mix of the three sub-populations. All these results validate the model in general.

7.2.2. Individual validation of parameters and interpretation

After verifying the general significance of the model, we now turn to the individual significance of estimated parameters. At this level, the work consist in verifying if each variable taken individually contribute in explaining variations in the choice of the way of exploiting the community forest. The tool appropriate for this is the Student test. It consists of testing for every variable the (H_0) hypothesis of nullity of the parameter against that of (H_1) that in is non-zero. In reality, we observe that variables expressing the increase in number of individuals in the household (“nomper_3” and “rev2_3”), in food expenditure (“depnut2_1”, “depnut2_2” and “depnut2_4”), school expenditure (“depscol2_1” and “depscol2_2”) are significant. They all have p-values greater than 1% for some and 5% for others. But the signs of food expenditure are negative. An explanation can be that the traditional exploitation of timber is more likely the only way to ensure the protection of food crops cultivation that they consume themselves. This situation is even confirmed by its “odds ratio” greater than 1.

These results are interesting for many reasons. Firstly, it is a stylised fact that schooling and going to the hospital are not part of the habits of the inhabitants of the region, notably the Baka pygmies. Secondly, the populations of the Lomié region lived essentially from gathering and hunting. The market economy is yet marginal, since barter was the current practice. This is to say that the introduction of the CF has contributed to introduce a little monetary exchange in the social habits. The experience of the CF has therefore changed a bit the social habits of the local populations. It is the same with food expenditure which practically did not exist in the budgets of households. Today, with the development of mentalities and exposure to modernity, without being very important, the expression “food money” now exists in the

vocabulary of heads of households in the region. For the other variables, we notice that sex, age and level of education do not favour the exploitation of the community forest in a community manner.

7.3. Some other results

7.3.1. Community forest, social cohesion and equity

Concerning equity in the redistribution of the benefits from the exploitation of the CF, it is important to first of all specify that with the absence of a suitable register to inform about the evolution of sales and other financial charges, it was difficult to technically determine how the profits have been used. We were left only with the choice of questioning the population how they perceived the management of the funds generated by the CF. This variable was denoted "gesrevfc" that is "management of revenues from the CF".

Table 4. Populations perception with respect to the management of money generated by CF

Sex	Perceptions on how the funds resources are managed ("gesrevfc")			
	Poor management	%	Good management	%
Female	39	19.5	19	9.5
Male	123	61.5	19	9.5
Total	162	81.00	38	19.00

Source: Own calculations.

In general, the local population have a very poor perception of the way the revenues generated by the exploitation of their CF are managed. The large majority, 81% think that resources are poorly managed (Table 4).

As concerns the distribution of the income of the exploitation of the CF in the framework of a CIG of the village, actions towards the improvement of social houses have not benefited from equitable criteria. Some members who are closer to the executive of the association have gained a lot while simple members have not. Also, the minority Baka-pymies have been victims of the unequal distribution due to lack of consideration as is always the case.

Table 5. Impact of the project of improving social houses by the CF in the different villages and ethnic groups studied

Villages		No improvement of house CF	Improvement of house CF	Number of individuals investigated	% improvement of house CF
Kongo		19	25	44	56.81
Ngola		52	31	83	37.34
Moangue		70	3	73	4.1
Total		141	59	200	29.5
Ethnicgroup	Bantu	61	56	117	47.86
	Baka	80	3	83	3.61
Total		141	59	200	29.5

Source: Own calculations.

From the above table, we notice that in general, actions for the improvement of social houses have more impact in the Kongo village than anywhere else. In fact, 56.81% of respondents benefited building materials for the construction or renovation of their houses. Everywhere else, this action failed drastically. In Moangue, the situation is more alarming as only 4% of the

population benefited from these materials before the distribution was stopped due to numerous frauds. Today, the materials are in stock, waiting that more equitable distribution criteria are adopted.

With the CF experiences, community spirit among the individuals has not been reinforced. This may be due to the fact that the distribution of building materials for the renovation of their houses such as zinc sheets, nails, rafters, etc. benefited only few people. This state of things damaged the spirit of solidarity and belonging to a same community that animated the majority of villagers.

7.3.2. Community forest, participation and capacity building

The advent of the CF is supposed to develop the capacities of the populations in matters of forest management and the understanding of the forest legislation. Before the putting in place of the experience, the populations of the Lomié region benefited from the assistance of some NGOs such as "World Wildlife Fund" (WWF). These NGOs organised training seminars on various forestry techniques and on the drafting of a Simple Management Plans (SMP), an important document in the creation of a CF as they describe the different activities to be carried out in the CF for a period of five years.

Table 6. Implication and training of the populations in the process of creating a CF

		Sex	Female	%	Male	%	Whole	%
Trainings								
Simple Management Plan (SMP)	Ignorance		38	43.67	49	56.33	87	45.5
	Awareness		20	17.69	93	82.31	113	56.5
Preparatory meeting for SMP	Did not participate		40	40.4	59	59.6	99	49.5
	Participated		18	17.82	83	82.18	101	50.5
Field work	Did not participate		54	40.29	80	59.71	134	67
	Participated		4	5.88	62	91.18	68	33
Drafting of SMP	Did not participate		57	32.20	120	67.80	177	88.5
	Participated		1	4.34	22	95.66	23	11.5
Training in forestry techniques	Did not participate		57	35.62	103	64.38	160	80
	Participated		1	2.5	39	97.5	40	20

Source: Own calculations.

In general, the majority of respondents (56.5%) are aware of the existence of the simple management plan. Our curiosity led us to notice that the populations not only were aware of the existence of the SMP but for most of the time knew its role and importance. Also, more than 50.5% of respondents participated at least once to general meetings organised in order to draw-up the SMP. All these, thanks to the actions of NGOs such as WWF or the "Netherlands Development Organisation" (SNV), which did a good work of sensitisation towards the populations. Meanwhile, during the drafting of the final document, 88.5% of people affirm to have not been consulted, this situation can be explained partly by the very low level of education of the populations of this region.

Looking at capacity building actions in forestry techniques, we can confirm that very few individuals were concerned. In fact, only 20% of persons benefited from training seminars on field work. Meanwhile the experience of community forestry should have been preceded by training sessions on forestry techniques, as well as, trainings in management and project management in favour of the populations. Indeed, people just found themselves management large sums of money. As they had limited knowledge in accounting, it was impossible for them

to draw up any exploitation account of their activity. Consequently, sales revenues were confused with profits. The consequence being the fraudulent siphoning of funds observed everywhere the experience was undertaken. Confrontations from this situation sometime led to deaths.

7.3.3. Gender analysis: participation of women in the activity

We also tried to see whether women could easily participate in the CF given that the jobs entail great physical power.

Table 7. Participation of women in the activities of the CF

Activities Sex	Sawyer	« Carriers »	Chain saw mechanic	Prospector.	Meterer	Guide	Total	Participation rate
Female	0	37	0	0	0	0	37	29.6
Male	3	54	7	16	4	4	88	70.4
Total	3	91	7	16	4	4	125	100

Source: Own calculations.

Female participation in activities directly linked to the CF is essentially in the domain of transporting the sawed-up timber. In fact, 37 investigated women intervene in the transportation of the wood. This gives a participation rate of 30% of the total population participating in the CF. This participation rate is important considering that for now, women do not yet have skills to manipulate chain saws and less again have had training to perform the other duties. Meanwhile these other activities do not need much physical effort compared to that of carrier.

Men also intervene much in the activity of carrier. Generally, the activity of carrier occupies 91 people out of 125 that have intervened directly in an activity of the CF, giving a rate of 70%. The other activities occupy only a negligible number of workers. These are more or less specialised jobs such as that of sawyer (engine saw operator) and mechanics.

8. Conclusions

At the end of this study, one can noticed that the impacts of traditional exploitation of the timber in the community framework on social development are mitigated.

Equity is not always respected in the distribution of profits generated by the CF. Good governance of the resources generated by the CF is not also done. Many suspicions of embezzlement weigh on executive members of the community associations. This makes the CF not to be a factor of social cohesion. The minority populations (Baka-pygmyes) are marginalised in the management of the CF. The exploitation of the CF has not profited the populations in terms of capacity building actions, be it in forestry techniques, formal education, accounting and financial skills. In fact, the level of participation of actors to the elaboration of the project is not satisfactory. Nonetheless, a very positive point in the management of the CF is the strong level of the participation of women.

Despite all hopes, both in the domain of economic and social development, placed in the experience of the CF in rural communities, the impacts of CF to actually change, positively, the daily lives of the populations is still possible. Much needs to be done for this management to be carried for the interests of the populations.

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The Impact of Economic Crisis on Direct Foreign Investments

Lucia Ramona POPA

lucia_ramona10@yahoo.com

*Universitatea "Constantin Brancoveanu" Pitesti
Facultata Management Marketing in Afaceri Economice*

Abstract

The direct foreign investments play an extremely important role in the economic development of a country through technological and know - how transfer, the export promotion with favorable effects on commercial and payments balance by attracting and training the available work force. The world crisis manifested by the restriction of access to financing sources, through some more restrictive loan conditions, the sales reduction, of profits therefore of financing resources destined to self - finance activities, to the achievement of acquisitions and mergers at international levels, as well as the severe reduction of stock exchange causing problems to transnational in financing from the capital market- all this have negatively influenced the direct foreign investment flows.

Keywords: foreign investments, transnational corporations, financial and economic crises.

JEL Code: F39

1. Introduction

The development of a strong economy based on the principles of competitive market cannot be achieved if it is not connected to the world economy in the same way in which the progress and the economic growth cannot be achieved without direct foreign investments.

2. The objectives of the investing and host countries

The flow of foreign investments among countries or groups of countries is made depending on some objectives which differ from a country to another according to their level of economic and technological development, to their economic structure and their being endowed with factors, to their progress in computing and communications, to the institutionalization of financial markets and extention of cooperation at corporation level.

The objectives which lead to the direct investment flows for investing countries are:

- + the supply with raw materials and power resources from host countries;
- + the use of some production factors available in the host country;
- + the use of goods marketing possibilities on the host country markets.

The objectives of the host countries have in view:

- + the achievement of top technologies;
- + retechnologisation with effects on production development and on generation of technical progress;

- ✚ the creation of new working places;
- ✚ the development of new branches;
- ✚ a performant management.

The main generators of direct investment flows abroad are the developed countries because they dispose of important accumulations and of the necessary material, technical and human means as well as of technologies and managerial experience.

3. The reasons lying at the direct foreign investments

The high level of investment flows concentration both at import and export becomes manifested within the groups of countries of European Union, North American and Japan. The greatest direct investment flows take place at the level of developed countries but there are differences among them depending on the extent of the countries, on their economic and technological power, on the structure of production factors and on their technological and managerial experience.

The country markets having national economy under transition rise interest to foreign investors both because of the quality of their work force, and of manufacturing conditions of some good quality products at low costs.

In this way the foreign investors dependence on getting high profits is quite great. However the development of economic globalization processes and the intensification of integration tendencies all over the world and especially in Europe, create for the countries with a transition economy, conditions to manifest some interests similar to the developed countries.

These interests represent:

- ✚ harmonization of levels of economic development and the creation of possibilities to revitalize the economy of host countries under transition;
- ✚ the creation of conditions to use more intensely the resources of work force and creative capacities in their residing countries and the prevention of emigration to the developed countries;
- ✚ the more intense use of raw materials on a longer period of time but under adequate ecological conditions;
- ✚ the consolidation of democratic framework and the assurance of a healthy business environment, based on a competitive economy which create the conditions necessary for the integration process and for the policy of countries under transition.

Besides these convergent interests, the developed countries have a series of personal interests:

- ✚ the assurance of a more stable investments, of capital surplus accumulated on the capital market and in western banks which do not find an advantageous use in their own economy;
- ✚ the creation of new markets for their high-tech competitive products, which without a development of technological level or retechnologisation of the other economies cannot totally find marketing sale on the origin country market;
- ✚ the interest for the capital extension and for the control on other national economy with the view to get profits from these;
- ✚ the tendency to take over the control on some economic entities or sectors of great importance on the way of strategic investments.

4. The effects of foreign investments on countries economy

The effect caused by the foreign capital on the economy has two dimensions. On the one hand this plays a complementary role in the context of transition, as it supplements the limited financial resources of the country and reduces the effects generated by the unstrained state of

economy, and on the other hand they have an important structural role in overcoming inefficiency and difficulties by using modern technological flows, managerial experience and economic administration.

By means of direct foreign investments it can be achieved:

- ✚ making of capital, as FDI contribute to a certain extent to the formation of fixed capital. Thus only the FDI flows out of which are subtracted FDI for the acquisition of production means already existing contribute to the formation of fixed capital that is new investments, reorganization investments, made in order to make some previous acquisitions profitable (assets or corporate stock) and the rise of stock capital in the existing companies.
- ✚ technological transfer and innovation activity. The access to technology and advanced knowledge is more important than the invest amount and technology import determines quite often a research activity for adopting them to the conditions of the host country. From technological perspective FDI determine the introduction of new technology which entails the manufacture and commercialization of a new product or price reduction of an already made product, the introduction and development of new abilities of working with the new technology in case of FDI which also imply the technology flows. This advantage is very important for the host companies as these make use of depreciated and obsolete technology which may lead to the production of low quality goods having weak performances. Since direct investment presupposes the transfer of advanced technology, modern production techniques and know-how, the receiving company will register superior performances as regard productivity and products quality, which will determine the increase of their export competitiveness.
- ✚ impact on competition, on resources, ownership relations and economic policy. Sometimes the impact may also have a negative influence because transnational corporations use the superior market force to annihilate competition. That is why a series of laws as that of bankruptcy, competition, capital market have the role of avoiding such situations;
- ✚ introduction of a new type of management in which the employees are directly interested in the good development of the organization which makes investments in the qualification and specialization of the staff and motivates them professionally and financially;
- ✚ decentralization of activities and the development of market economy in which the competition is regarded as a positive factor of companies in attracting customers with quality goods at competitive prices;
- ✚ attraction of redundant workforce because of reorganization of large companies, of bankruptcy of other societies or from the students attending schools. The impact of FDI on the workforce is influenced by great investors who generate new working places and pay higher wages than national companies, engaging young well-trained specialists, who contribute to the increase of labor productivity. The creation of new working places represents one of the positive effects generated by "greenfield" type investments. The creation of working places which need qualified workforce presupposes transfer of knowledge and the permanent preoccupation for professional training, with favorable effects on the quality of human factor in the host country.
- ✚ the improvement of the level of workforce training when the foreign companies make investments in activities which presuppose a raised qualification of the employees, the foreign investors will pay an increased and permanent attention to the improvement of the staff of the organization receiving them. Furthermore, it may appear the phenomenon of knowledge diffusion acquired like that, if the employees of such companies direct to other sectors or start developing activities on their own.
- ✚ influences on political, social, cultural field through a direct exposition of the economy of the host country to the political and economic system of other countries, attitude towards work, industrial relations and foreign workers, customs and behavior norms different from foreign societies;

- ✚ the use of external market segments proper to those who make investments, balancing imports with exports but also the commercial deficit.
- ✚ export promotion, the improvement of foreign trade structure. In a first stage of transnational expansion, the commercial balance of the host country might be negative because of the massive imports made by the branches- machines, equipments, raw materials, but once the export started, the balance also improves;
- ✚ the appreciation of the exchange rate and of payment balance. In case of FDI it must be made a comparison between the entrance flow of the project and the present value of the future income flows, using as an updating factor the rate of interest on the international market from which the respective country may borrow funds. Usually the future flows updated are higher than the invested capital, because the rate of return in the developing countries is lower than the rate of interest on the international market accessible to these countries. Furthermore by means of FDI, currency is saved by substituting imports and also takes place the appreciation of the exchange rate.
- ✚ decrease of the loan values to which Romania must resort to balance the budget deficit and the commercial one by adding to the GDP of the host county and by supplying supplementary income to the state budget by taxes and fees;
- ✚ the support of privatization and restructuring process. In case of large public companies offered to be sold, when the local companies do not have enough funds for their acquisition and becoming profitable, FDI are the only solution. By privatization they benefit from financial flow, technology, know-how and from the quality of local workforce;
- ✚ the increase of local firm efficiency and competitiveness that will be able to improve qualitatively the management level and that of production, and if they became the suppliers of foreign investors companies, they have access to new technologies or diversify their own production to face the competition caused by the presence of new economic agents on market.

In the same time the FDI may have negative effects on the budget in the implementation stage owing to some tax facilities granted, to the rise of imports through the invested equipments but also the increase of unemployment by reorganization of private companies.

The role of foreign direct investments is to produce a sustainable development within the economy of the host country through the contributions brought to the increase of the level of work force engagement, of the standard of living and of GDP.

5. The Crisis Effect on Direct Foreign Investments

The unusual amplitude registered by the financial and economic crises at international level engendered some major worries regarding the future of world economy. Inevitably under the incidence of crisis effects and of pessimistic forecasting have also entered the direct foreign investments, in spite of their positive evolutions in the recent years.

In the period 2003- 2007, the flows of direct foreign investments have registered an ascending trend, supported by the economic development at world level, by the liberalization of regimes regarding foreign investments and the implementation on a large scale of internalization strategies. All this have led to a DFI high record of 1.8 billion dollars in 2007 (UNCTAD, 2009).

Because of international financial and economic crises the year 2008 marked the end of the rising cycle of international investments.

This, the direct foreign investments flows at global level have decreased with 20% in 2008. As regards the impact on virtual economy, the crisis has rapidly over passed the financial sector and engendered serious effects on the real economy.

The more restrictive credit requirements affected the firm possibilities of development and extension, and the consumers trust has decreased in many parts of the world.

In fact, the crisis impact on D.F.I. flows is different, depending on the region and on the activity sector.

Statistics show that the developed countries were most affected by the crisis in 2008 as a result of the problems met by financial institution, that of liquidities, the direct foreign investment flows have decreased with almost 33% for the group of developed countries.

The drawn DFI flows have registered low levels especially in Finland, Germany, Hungary and Italy but also in Great Britain, France, The United States as compared with the levels registered in 2007.

The low income registered by transnational corporations and by the decline of trade - unionized banking loans limited the investment financing.

Also, the LBO reduced transactions (taking - over companies with funds from loans) affected emergencies and international acquisitions, with negative effects on DFI flows.

As regards the developing and transition countries, the DFI flows to these countries were not affected in the same way as the developed countries in 2008. The rising rate of developing countries, though lower than in 2007 (when it exceeded 20%) has reached 4% according to UNCTAD estimations.

The flows to East, South and South East Asia, (the most important as regards FDI flows, among developing countries) continued to rise in 2008, but with a lower rate than in the preceding year.

The countries in the West Asia recorded a significant reduction of direct foreign investments (over 20%) as compared to 2007, because of low oil demand, of high costs and of low income from oil sales. Instead, while South America expects that the crisis effects on direct foreign investments to be feebly felt, in Central America and Caraipe - that are traditionally dependent on American economy, they will register, most probably, a decline.

At present, the rising strategy based on direct foreign investments of new EU member states and of South- East European Countries is critical according to an analysis on the situation of direct foreign investments in 20 Central, East and South - East European countries made by Vienna Institute for International Economic Studies.

On the basis of world tendencies and of results of the first term of actual year, the representatives of Vienna Institute of International Economic Studies expects that the infusion of direct foreign investments decrease with at least half of the level in 2008.

In spite of this considerable decline, the volume of investments in the EU new member states could reach 20 billion Euros, similar to the volume of investments registered by these countries at the beginning of 2000.

The excessive external exposure has engendered a high vulnerability, especially with the small countries, and facilitated the propagation of financial crisis.

After many years of continuous increase, the infusions of direct foreign investment in the EU new member states have registered a decrease of 9% AND OF 22% in the South- East European countries in 2008. This decrease was compensated by an explosive growth of 17% of direct foreign investments in the Community of Independent States.

The results from the EU new member states were different. While Romania and Slovenia registered significant increase as regards direct foreign investments in 2008, Poland, Bulgaria and The Baltic States have registered decrease. Some of these changes were the results of normal fluctuations caused by ample individual investment projects.

In Czech Republic, Hungary and Slovakia the infusions of direct foreign investments were at the same level as in the previous year, and the investments also continued on projects oriented to exports, in industries which suffered important production decrease at the beginning of this year.

In 2008, Romania was placed the second on top of drawn foreign investments among the new EU member states and was placed on the ninth among the 27 countries of the Union, surpassing Czech Republic, Bulgaria, Hungary but also Denmark, Greece, Holland, Portugal.

It is possible that a large number of production activities be transferred from West Europe to the newly admitted countries in EU. Having low cost levels, and some subsidiaries will be closed in this region. New investment opportunities also appear in the new EU countries on the basis of increased project numbers financed by European Union.

As regards the sectors of activity, the DFI flows to financial services, of automobile industry, to building materials or of some consumer goods were seriously affected.

But the crisis consequences rapidly extend on DFI flows of other sectors, starting with primary sectors and finishing with the non-financing services.

In the same time the present financial crisis influences the firms capacity to invest as a result of reduced financial possibilities and of decreased desire to invest because of pessimistic forecast as regards the economic growth and market development.

The reduced access to financial sources represents an important factor which affects the DFI flows. The financial factors affects negatively the capacity of transnational corporations to invest both at internal level and also external one, as long as the crediting conditions become more restrictive, and reduction of profits leads to the decrease of financial resources destined to investment projects.

On the one hand, the credit offer has decreased and the financing cost has increased. The external financing environment of companies deteriorated at the latter half of 2008, determine the transnational corporations be more reticent as regards foreign investment or mergers and acquisitions.

On the other hand, the low income registered by a series of USA, Europe and Japan industries diminish the company self- financing possibilities.

Besides, a 40% decrease of money market all over the world reduced the financing capacity of transnational corporations on the capital market. The pessimistic forecast regarding the world economy represent another factor which affects the direct foreign investment flows.

The negative process registered all over the world, including the strong recession (even in some developed countries) and a continuous appreciation of risk, reduced the firms capacity to invest for expansion both at internal and international level.

Foreign investors continue to be interested in the Romanian market, despite the international crisis, ARIS receiving 12 investment projects from investors since the beginning of the year, representing investments over 700 mil. Euro, which might create 3000 work places. The main fields in which investors are interested to invest in Romania are those regarding the production of equipments for no conventional energy, building materials and IT.

Among the most significant investments for the increase of social capital, achieved in 2009 are those got in car industry and car equipments, in metallurgy, in banking system and pharmacy.

6. Conclusions

Through direct foreign investments can be achieved: the formation of fixed capital in an organization, the technological transfer and innovating activity, the substantial decrease of production costs and prices; the rise of products quality which are competitive on the external market, export promotion by using foreign market segments- belonging to investors; the reduction of loans Romania has to make to balance the budget deficit and the commercial one; the appreciation of the exchange rate and of balance of payments; the drawing of available work force and their training; decentralization of activities and the development of market economy, the sustainability of privatization and restructuring process; international economic integration, because they determine a better connection with international economy and an amplification of economic growth due to a more efficient international work division and the reduction of their level due to world crisis has consequential effects on the entire Romanian economy.

The liquidity crisis which caused restrictions regarding loans, the reduction of organization income as well as the decrease of stock exchange prevented transnational to achieve foreign investments. The world crisis manifested by the restriction of access to financing sources, through some more restrictive loan conditions, the sales reduction, of profits therefore of financing resources destined to self - finance activities, to the achievement of acquisitions and mergers at international levels, as well as the severe reduction of stock exchange causing problems to transnational in financing from the capital market- all this have negatively influenced the direct foreign investment flows.

Direct foreign investments have become the most important source of foreign financing for the world countries, no matter their level of development, as unlike the bank loans, the portfolio investments are affected in a smaller extent by the financial crises.

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Operating Cash Surplus Determinations

Teodor HADA

schiau.laura@yahoo.com
Alba Iulia University, Alba Iulia

Abstract

The paper defines the concept of operating surplus. Then, it is compared to the gross operating surplus and the differences are identified. The two calculation methods are presented next: (1) operating revenue less operating charges and (2) the gross operating surplus less Δ WCN (Working capital needs) less immobilised production less stored production less other operating revenues). Then, a three year study is presented (2005-2007) and the results are interpreted. Then, there is a correlation between the operating cash flow surplus and the operating cash flows.

Keywords: operating surplus, operating revenue less operating charges, the gross operating surplus less

JEL Code: G30

1. Introduction

The revenues, expenses and earnings of trading companies are structured according to the following types of activities: operating activity, financial activity and extraordinary activity. It is useful in practice to determine cash flows for each type of activity, which allows trading companies to influence cash flows towards these activities.

The indicator which meets these requirements is the operating cash surplus (OCS).

"OCS is the generated (or consumption of) cash during the financial year only through operation activities."³²

OCS can be determined as follows:

a) by subtracting operating charges from operating revenue.

OCS = operating revenue – operating charges

Where:

Operating revenue = Turnover – increase in creditors;

Operating charges = operating expenses – increase of debt to suppliers – increase of other operating debts.³³

From a methodological perspective, the determination of OCS needs a few observations:

- ✚ Since the turnover (T) is determined without VAT in the profit and loss account, the variation of receivables and suppliers will also be expressed without VAT;
- ✚ The turnover and suppliers are corrected through the balance accounts that also include VAT through the balance sheet method;
- ✚ If operating receipts only include product and service delivery, operating incomes also include finished goods stock variation and ongoing production, the production that the company creates for its own purposes and then sells it and other operating revenues.

³² Petre Brezeanu, *Finanțe corporative*, vol.I, C.H. Beck Publishing House, p.167

³³ Georgeta Vintilă, *Gestiunea financiară a întreprinderii*, Didactic and Pedagogical Publishing House R.A. Bucharest, 2006, p.152

b) *determine OCS in correlation with GOS*. This method starts from the calculus formulae of the two indicators; then, GOS and OCS are presented in contrast:

$$\text{GOS} = \text{T (without VAT)} + \text{Stock variation (N}_2\text{-N}_1\text{)} + \text{Capitalized production} + \text{other operating revenues} - \text{Purchase (without VAT)} - \Delta \text{Stocks (Sf-Si)} - \text{Other operating charges}^{34}$$

$$\text{OCS} = \text{T (without VAT)} + \text{Stock variation (N}_2\text{-N}_1\text{)} + \text{Capitalized production} - \text{Other operating revenues} - \text{Purchases (without VAT)} - \text{Other operating charges} - \Delta \text{Operating debts}$$

$$\text{GOS} - \text{OCS} = \Delta \text{Stocks} + \Delta \text{Operating debts}$$

Or

$$\text{OCS} = \text{GOS} - \Delta \text{WCN}$$

If the operating receipts only include the turnover, then $\text{OCS} = \text{GOS} - \Delta \text{WCN} - \text{stored production variation} - \text{sold production} - \text{other operating revenues}$.

We exemplify with the data from the balances of 2005, 2006 and 2007, structured as follows:

Table [1]

Indicator	2005	2006	2007
Total immobilised assets, of which:	7221735	6700173	7774952
Tangible assets	7112885	6604374	7707204
Intangible assets	67292	54241	27121
Financial assets	41558	41558	40627
Stocks of raw materials and other materials	1787635	1999627	2683278
Stocks of finished goods	1717428	958740	960714
Output in progress	4045739	4023374	4087589
Advance payments	32241	55957	12478
Total receivables	18674311	19151725	19040160
Of which: Trade receivables	13868870	15462864	15386569
Other receivables	4805441	3688861	3653591
Cash assets	237945	1527843	552363
Prepaid expenses	1116101	961545	961545
Total assets	34833135	35378984	36073079

Table [2]

Cr. No.	Indicator	2005	2006	2007
1.	Equities	15371466	15754922	15855815
2.	Debts > 1 year	276427	193668	569256
3.	Provisions	-	-	-
4.	Debts < 1 year of which:	17436481	17739652	17974868
5.	- advance payments in the account of orders	52495	14418	9025
6.	- trade debts	6788920	7174521	8734100
7.	- other debts	8160732	7612188	6071904
8.	- Amounts from credit institutions	2434334	2938525	3159839
9.	Deferred revenue	1748761	1690742	1673140
10.	TOTAL	34833135	35378984	36073079

³⁴ Other external expenses, taxes, assimilated fees and payments, personnel expenses, other operating expenses (from the profit and loss account)

Calculus of the intermediate management balances in 2004, 2005, 2006, 2007

Table [3]

Cr. No.	Indicator	2004	2005	2006	2007
1.	Turnover	39651077	48617376	57671285	61136536
2.	Stock variation	-863980	+1205197	-800954	+46798
3.	Own work	619092	16173	0	140301
4.	Financial year output	39406189	49838746	56870331	61323635
5.	Other operating revenues	9323	170371	777561	1068155
6.	Total 1+2+3+4	39415512	50009117	57647892	62391790
7.	Expenses with raw materials and other materials	14117358	19319518	23199821	24780867
8.	Other external expenses (power supply, water)	5115933	6011249	6406935	7101565
9.	Other materials expenses	366384	376082	584159	830298
10.	Expenses with external services	4564213	5438515	6345006	6494733
11.	Expenses with merchandise	838739	205282	198739	227348
12.	Other operating expenses	681895	2015405	891167	1621533
13.	Added value (4-(7+8+9+10+11))	14403562	18658471	20022065	21335446
14.	Compensation of employees	11850251	18488100	20135671	21888824
15.	Expenses with taxation, tariffs	290572	590165	757931	208546
16.	GOS = 13-(14+15)	2262739	3747207	2932727	2729226
17.	Circulating assets adjustments	-377	1464	413389	825351
18.	Adjustments with fixed assets	791819	959658	753172	686575
19.	Operating profit 16+5-(17+18+12)	798725	941051	1652560	663922
20.	Financial revenues	409116	1233620	1177296	2346217
21.	Financial expenses	1022613	1781141	2093522	2514334
22.	Financial profit or loss (20-21)	-613497	547521	-916226	-168117
23.	Current profit 18 ± 22	185228	393530	736334	495805
24.	Extraordinary profit	-	-11311	-	-
25.	Gross profit	185228	382219	736334	495805
26.	Profit tax	157755	319482	351352	394656
27.	Net profit	27473	62737	384982	101149

OCS calculus depending on GOS, determined according to the financial year output

Table [4]

	Indicator	2005	2006	2007
1	Net T	48.617.376	57.671.285	61.136.536
2	Stock variation	1.205.197	-800.954	140.301
3	Sold output	16.173	0	46.798
4	Δ operating stocks	726.838	-545.345	706.361
5	Δ receivables	1.472.044	477.414	-111.565
6	Δ advance expenses	130.837	-154.556	0
7	Operation sales (1+2+3-4-5-6)	47.509.027	57.092.818	60.728.839
8	Operation charges	49.068.066	55.995.332	61.727.868
9	Amortizations	961.122	1.166.561	1.511.926
10	Δ suppliers	1.599.944	-201.020	13.902
11	Other operating debts	0	-58.019	-17.602
12	Other operating expenses	2.015.405	891.167	1.621.533
13	Payments (8-9-10-11-12)	44.491.595	54.196.643	58.598.109
14	OCS (7-13)	3.017.432	2.896.175	2.130.730
15	GOS	3.747.207	2.932.727	2.729.226
16	Δ WCN	729.775	36.552	598.496
17	OCS (15-16)	3.017.432	2.896.175	2.130.730

Cash flow statement according to the output of the financial year 2005

Table [5]

Profit before taxes (gross profit)	382219
Adjustments for	
Amortization	959658
Adjustment circulating assets	1464
Other operating expenses	2015405
Revenues from interest	-1233620
Interest charges	1781141
Extraordinary loss	+11311
Δ Receivables	
Δ Stocks	
Δ Suppliers	
Δ Other operating debts	
Other operating revenues	- 170371
Operating cash (OCS)	3017432
Collected debts	1233620
Paid debts	-1781141
Profit taxation	-319482
Net operating surplus	2150429

Cash flow statement according to the output of the financial year 2006

Table [6]

Profit before taxes (gross profit)	736334
Other operating charges	891167
Amortization	753172
Adjustments Circulating assets	413389
Provisions for risks and expenses	
Earnings from divestments	
Revenue from interest	-1177296
Interest charges	+2093552
Δ Receivables	
Δ Stocks	
Δ Suppliers	
Δ Other operating debts	
Δ Fiscal debts	
Δ Other debts	
Other operating revenue	- 777561
Operation generated cash	289175
Interest proceeds	1177296
Interest paid	-2093.522
Profit tax paid	-351.352
Operating cash	1514991

Cash flow statement according to the output of the financial year 2007

Table [7]

Profit before taxes (gross profit)	495805
Adjustments for	
Other operating charges	1621533
Amortization	686575
Adjustments circulating assets	825351
Provisions for risks and expenses	-
Earnings from divestments	-
Revenue from interest	-2346217
Interest charges	+2514334

Δ Receivables	+706361
Δ Stocks	-111565
Δ Suppliers	-13902
Δ Other operating debts	-
Δ Fiscal debts	-
Δ Other debts	+17602
Other operating revenue	-1068155
Operation generated cash	2130730
Interest proceeds	2346217
Paid interest	-2514334
Profit tax paid	-394656
Operating cash	1014579

Calculus of the intermediate management balances in 2005, 2006, 2007

Table [8]

Cr. No.	Indicator	2005	2006	2007
1.	Turnover	48617376	57671285	61136536
2.	Stock variation	+1205197	-800954	+46798
3.	Own work	16173	0	140301
4.	Other operating revenues	170371	777561	1068155
5.	Total 1+2+3+4	50009117	57647892	62391790
6.	Expenses with raw materials and other materials	19319518	23199821	24780867
7.	Other external expenses (power supply, water)	6011249	6406935	7101565
8.	Other materials expenses	376082	584159	830298
9.	Expenses with external services	5438515	6345006	6494733
10.	Expenses with merchandise	205282	198739	227348
11.	Other operating expenses	2015405	891167	1621533
12.	Added value	18658471	20022065	21335446
13.	Compensation of employees	14150728	16445013	18951052
14.	Expenses with taxation, tariffs	590165	757931	208546
15.	GOS = 12-(13+14)	3917578	289121	2175848
16.	Circulating assets adjustments	1464	413389	825351
17.	Adjustments with fixed assets	959658	753172	686575
18.	Operating profit	941051	1652560	663922
19.	Financial revenues	1233620	1177296	2346217
20.	Financial expenses	1781141	2093522	2514334
21.	Financial profit or loss	547521	-916226	-168117
22.	Current profit 18 ± 22	393530	736334	495805
23.	Extraordinary profit	-11311	-	-
24.	Gross profit	382219	736334	495805
25.	Profit tax	319482	351352	394656
26.	Net profit	62737	384982	101149

OCS calculus depending on GOS, determined according to the financial year revenue

OCS calculus for 2005

Operating proceeds = Net turnover - ΔOperating stocks - ΔReceivables- ΔPrepaid expenses =
48.617.376 – (7583043 – 6856205) – (18674311 – 17202267) – (1116101 – 985264) =
46287657

Operating payments = operating charges – amortization – other operating charges - ΔSuppliers
– Other operating debts = 49068066 – 959658 – 1464 -2015405 – (52495 + 6788920 +

$$8160732) + (60026 + 7309911 + 6032266) - (1748761 - 1748761) = 49068066 - 959658 - 1464 - 2015405 - 1599944 = 44491595$$

$$OCS_{2005} = 46287657 - 44491595 = 1796062$$

$$OCS_{2005} = GOS - \Delta WCN - \text{tied-up production} - \text{Stored production} - \text{Other operating revenues} \\ = 3917578 - 729775 - 16173 - 1205197 - 170371 = 1796062$$

OCS calculus for 2006

$$\text{Operating proceeds} = \text{Net turnover} - \Delta \text{Operating stocks} - \Delta \text{Receivables} = 57671285 - (7037698 - 7583043) - (19151725 - 18674311) - (961545 - 1116101) = 57671285 + 545345 - 477414 + 154556 = 57893772$$

$$\text{Operating payments} = \text{operating charges} - \text{amortization} - \Delta \text{Suppliers} - \text{Other operating debts} \\ = 55995332 - 753172 - 413389 - 891167 - (14418 + 7174521 + 7612188 - (52495 + 6788920 + 8160732) - (1690742 - 1748761)) = 55995332 - 753172 - 413389 - (-201020) + 58019 = 55.087.810$$

$$OCS = 57893772 - 55087810 = 2805962$$

$$OCS = GOS - \Delta WCN - \text{tied-up production} - \text{Stored production} - \text{Other operating revenues} = 2819121 - (10659099 - 10622547) - 0(-800954) - 777561 = 2805962$$

OCS calculus for 2007

$$\text{Operating proceeds} - \text{Net turnover} - \Delta \text{Operating stocks} - \Delta \text{Receivables} - \Delta \text{Prepaid expenses} = 61136536 - (7744059 - 7037698) - (19040160 - 19151725) - (961545 - 961545) = 61136536 - 706361 + 111565 - 0 = 60541740$$

$$\text{Operating payments} = \text{operating charges} - \text{amortization} - \Delta \text{Suppliers} - \text{Other operating debts} = 61727868 - 686575 - 825351 - (9025 + 8734100 + 6071904 - 14801127) - (1673140 - 1690742) = 61727868 - 686575 - 825351 - 13902 + 17602 = 60219642$$

$$OCS_{2007} = 60541740 - 60219642 = 322.098$$

$$OCS_{2007} = GOS_{2007} - \Delta WCN - \text{tied-up production} - \text{Stored production} - \text{Other operating revenues} = 2.175.848 - (11257595 - 10659099) - 140301 - 46798 - 1068155 = 322098$$

Cash flow statement according to the total operating revenues of the financial year 2005

Table [9]

Profit before taxes (gross profit)	382219
Adjustments for	
Amortization	959658
Adjustments circulating assets	1464
Other operating charges	2015405
Revenue from interest	-1233620
Interest charges	1781141
Extraordinary loss	+11311
Δ Receivables	
Δ Stocks	
Δ Suppliers	
Δ Other operating debts	
Tied-up production	-16173
Stored production	-1205197
Other operating revenues	-170371
Operation generated cash (OCS)	1796062
Interest proceeds	1233620
Interest paid	-1781141
Profit tax	-319482
Net operating surplus	929059

Cash flow statement according to the total operating revenues of the financial year 2006

Table [10]

Profit before taxes (gross profit)	736334
Other operating charges	
Amortization	753172
Adjustments Circulating assets	413389
Provisions for risks and expenses	
Earnings from divestments	
Revenue from interest	-1177296
Interest charges	+2093552
Δ Receivables	
Δ Stocks	
Δ Suppliers	
Δ Other operating debts	-36552
Δ Fiscal debts	
Δ Other debts	
Tied-up production	-0
Stored production	+800954
Other operating revenues	-777561
Operation generated cash (OCS)	2805962
Interest proceeds	1177296
Interest paid	-2093522
Profit tax	-351352
Net operating surplus	1538384

Cash flow statement according to the total operating revenues of the financial year 2007

Table [11]

Profit before taxes (gross profit)	495805
Adjustments for	
Other operating charges	
Amortization	686575
Adjustments Circulating assets	825351
Provisions for risks and expenses	-
Earnings from divestments	
Revenue from interest	-2346217
Interest charges	+2514334
Δ Receivables	+706361
Δ Stocks	-111565
Δ Suppliers	-13902
Δ Other operating debts	-
Δ Fiscal debts	-
Δ Other debts	+17602
Tied-up production	-140301
Stored production	-46798
Other operating revenues	-1068155
Operation generated cash (OCS)	322098
Interest proceeds	2346217
Interest paid	-2514334
Profit tax	-394656
Net operating surplus	-240675

Calculus of OCS based on GOS determined according to VAT

Table [12]

Indicator		2004			2005			2006			2007		
		Total	Vat	End balance	Total	Vat	End balance	Total	Vat	End balance	Total	Vat	End balance
1	Operating stocks	6.856.205	-	6.856.205	7.583.043	-	7.583.043	7.037.698	-	7.037.698	7.744.059	-	7.744.059
2	Receivables	17.202.267	151.460	17.050.807	18.674.311	256.986	18.417.325	19.151.725	213.614	18.938.111	19.040.160	329.946	18.710.214
3	Prepaid expenses	985.264	-	985.264	1.116.101	-	1.116.101	961.545	-	961.545	961.545	-	961.545
4	Advances	60.026	-	60.026	52.495	-	52.495	14.418	-	14.418	9.025	-	9.025
5	Suppliers	7.309.911	687.997	6.621.914	6.788.920	604.046	6.184.874	7.174.521	620.466	6.554.055	8.734.100	970.493	7.763.607
6	Other debts	6.032.266	-	6.032.266	8.160.732	-	8.160.732	7.612.188	-	7.612.188	6.071.904	-	6.071.904
7	Total operating debts (4+5+6)	13.402.203	687.997	12.714.206	15.002.147	604.046	14.398.101	14.801.127	620.466	14.180.661	14.815.029	970.493	13.844.536
8	Deferred revenues	1.748.761	-	1.748.761	1.748.761	-	1.748.761	1.690.742	-	1.690.742	1.673.140	-	1.673.140
9	WCN (1+2+3-7-8)	9.892.772	-536.537	10.429.309	10.622.547	-347.060	10.969.607	10.659.099	-406.852	11.065.951	11.257.595	-640.547	11.898.142

$$\begin{aligned}\Delta VAT_{2005} &= VAT_{2005} - VAT_{2004} \\ &= -347.060 + 536.537 \\ &= 189.477\end{aligned}$$

$$\begin{aligned}\Delta VAT_{2006} &= VAT_{2006} - VAT_{2005} \\ &= -406.852 + 347.060 \\ &= -59.792\end{aligned}$$

$$\begin{aligned}\Delta VAT_{2007} &= VAT_{2007} - VAT_{2006} \\ &= -640.547 + 406.852 \\ &= -233.695\end{aligned}$$

$$\Delta WCN_{\text{without VAT}}$$

$$\begin{aligned}\Delta WCN_{2005} &= WCN_{2005} - WCN_{2004} \\ &= 10.969.607 - 10.429.309 \\ &= 540.298\end{aligned}$$

$$\begin{aligned}\Delta WCN_{2006} &= WCN_{2006} - WCN_{2005} \\ &= 11.065.951 - 10.969.607 \\ &= 96.344\end{aligned}$$

$$\begin{aligned}\Delta WCN_{2007} &= WCN_{2007} - WCN_{2006} \\ &= 11.898.142 - 11.257.595 \\ &= 832.191\end{aligned}$$

$$\Delta WCN = \Delta WCN_{\text{without VAT}} + \Delta VAT$$

VAT influence on OCS

Table [13]

Indicator		2005	2006	2007
1	Δ operating stocks	726.838	-545.345	706.361
2	Δ receivables	1.472.044	477.414	-111.565
3	Δ prepaid expenses	130.837	-154.556	0
4	Δ advances	-7.531	-38.077	-5.393
5	Δ suppliers	-520.991	385.601	1.559.579
6	Δ other debts	2.128.466	-548.544	-1.540.284
7	Total operating debts (4+5+6)	1.599.944	-201.020	13.902
8	Δ deferred revenue	0	-58.019	-17.602
9	Δ WCN (1+2+3-7-8)	729.775	36.552	598.496

OCS calculus based on GOS determined depending on the financial year output without VAT

$$\begin{aligned}OCS &= GOS - \Delta WCN_{\text{without VAT}} \\ OCS_{2005} &= 3.747.207 - 540.298 = 3.206.909 \\ OCS_{2006} &= 2.932.727 - 96.344 = 2.836.383 \\ OCS_{2007} &= 2.729.226 - 832.191 = 1.897.035\end{aligned}$$

To sum up

OCS calculated based on turnover, financial year output, total operating revenues and VAT

Table [14]

Indicator	2005	2006	2007
ΔT	-29.677	785.707	-2.607.476
OCS (based on T)	3.187.803	2.782.569	1.577.352
OCS (based on the financial year production)	3.017.432	2.896.175	2.130.730
OCS (based on the total operating income)	1.796.062	2.805.962	322.098
OCS without VAT	3.206.909	2.836.383	1.897.035

From the presented aspects on the OCS calculation, the following result:

- ✚ any business activity implies the following operations: management, finance and investments;
- ✚ OCS is generated by business operation activities
- ✚ OCS can be determined in relation to GOS based on the financial year production indicator or by considering all operating revenues. The financial year production indicator is no longer included in the structure of the profit and loss account;
- ✚ OCS can be calculated starting from the production of the financial year or from all the operating revenues; in both cases, the correlation $OCS = GOS - \Delta WCN$ is valid. Consequently, the difference between OCS and GOS is influenced by the variation of the working capital need, with the role of correcting receivables and debts balances in the case of trading companies. This procedure turns possible incomes and expenses from the profit and loss account structure into cash flows;

- ✚ when determining OCS, the VAT generated flows must be disconsidered; we believe that they should be separately recorded in the structure of cash flows;
- ✚ if turnover is the only considered in operating proceeds, then $OCS = GOS - \Delta WCN - \text{tied-up production} - \text{Production from finished goods stock variation and of the production in progress} - \text{own work capitalized}$.

In our opinion, the incomes from finished goods stock variation and from the production in progress are not cash flows.

- ✚ Some authors show that OCS equals operating flows;
- ✚ GOS and OCS are different because:
 - GOS is an earnings balance, between the revenues that generate operating payments sooner or later; it is a potential surplus;
 - OCS identifies the connection between earnings and cash, as it is an indicator of cash difficulties in the case of trading companies.

Recently, Petre Brezeanu³⁵ has noticed an interest for the analysis of OCS calculus starting from GOS, a procedure which does not consider stock variation. As stock variation may cause financial problems, it is not a truthful calculus. Also, cash calculations without considering amortization and provisions can change the performance indicators of trading companies; OCS is one of the indicators included in the financing plan structure, and hence, its increasing importance; We believe that OCS determination must include elastic calculation methods, which can highlight the cash flow of trading companies.

Calculus of SOP (surplus on operations)

Petre Brezeanu³⁶ defines SOP as surplus on operations which can be determined by the formula:

$SOP = \text{Sales (without VAT)} + \text{Tied-up production} - \text{Purchase (fără VAT)} - \text{Other operating expenses } (\Delta \text{ Stocks excluded})$

Therefore:

$$OCS = SOP - \Delta \text{ Operating receivables} + \Delta \text{ Operating debts} \quad (1)$$

The difference $\Delta \text{ Operating receivables} - \Delta \text{ Operating debts}$ is called trade stock variation.

$$\text{Therefore: } OCS = GOS - \Delta \text{ Trade stock} \quad (2)$$

If we begin with:

$$OCS = GOS - \Delta NRE = GOS - \Delta \text{ Stocks} - \Delta \text{ Operating receivables} + \Delta \text{ Operating debts} \quad (3)$$

But, by replacing OCS from (1) to (3), the subtraction result (3-1) is:

$$OCS - OCS = SOP - \Delta \text{ Operating receivables} + \Delta \text{ Operating debts} - GOS + \Delta \text{ Stocks} + \Delta \text{ Operating receivables} - \Delta \text{ Operating debts}$$

$$\text{Therefore: } 0 = SOP + \Delta \text{ Stocks} - GOS$$

$$\text{Resulting: } GOS = SOP + \Delta \text{ Stocks and } SOP = GOS - \Delta \text{ Stocks}$$

Determining the surplus on operations in relation to GOS values

$$SOP = GOS - \Delta \text{ Stocks}$$

Table [15]

Indicator	2005	2006	2007
GOS	3.747.207	2.932.727	2.729.226
Δ stocks	726.838	-545.345	706.361
SOP	3.020.369	3.478.072	2.022.865

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The Role of Marketing in Adult Permanent Vocational Training in the Context of the Current Economy

Geanina COLAN

geani97423@yahoo.co.uk

Claudia Anita PETCU

claudiaanitapetcu@yahoo.com

Academy of Economic Studies, Bucharest

Abstract

The problem of permanent vocational training is important in sustaining the vocational conversion of the working class. A change of views and mentality is desirable regarding vocational training, in the sense that people need to be more aware of the importance of permanent learning, more motivated in order to broaden their horizon and more willing to develop their professional skills. The labour market in Romania has suffered important changes due to the economic transition process, which has been materialized especially on the level of reducing the number of active workers and of employees, thus maintaining a relatively constant rate of unemployment and affecting the labour marketing especially by a limited number of jobs.

Keywords: network, training, marketing, adults

1. Introduction

The problem of permanent vocational training is important in sustaining the vocational conversion of the working class. It is the main instrument that helps to adapt to the new standards, making it easier in this way to change domains. A change of views and mentality is desirable regarding vocational training, in the sense that people need to be more aware of the importance of permanent learning, more motivated in order to broaden their horizon and more willing to develop their professional skills. The labour market in Romania has suffered important changes due to the economic transition process, which has been materialized especially on the level of reducing the number of active workers and of employees, thus maintaining a relatively constant rate of unemployment and affecting the labour marketing especially by a limited number of jobs. This accounts for the necessity to shift the focus towards investments in the permanent vocational training. Yet there are two problems that need solving: the insufficient participation in the permanent vocational training and the defective quality of the actual permanent vocational training. In order to put an end to this situation our attention and efforts must be focused on the following problem categories: Insufficient laws that would allow recognition of previous studies to build up a system based on transferable credits; Too many limitations and an inflexible approach to the Labour Code; Defective laws that sit on the basis of initial-stage and permanent vocational training; Lack of a flexible permanent vocational training system based on competences; Insufficient connections and coordination between the Ministry of Labour and the Ministry of Education; Lack of an organizational structure, of executive power and of financial means for the National Council for Adults Vocational Training as a National Authority of Qualifications: including the

regional committees, providing qualitative training, as well as supporting qualitative improvements; Insufficient involvement of the social partners in developing permanent vocational training; Lack of an organizational framework in order to set up executive power regional committees, to establish their responsibility to elaborate qualification standards and to analyze the training needs; Defective administrative power of the information services as well as of the professional counseling and guidance; Insufficient quantity and defective quality regarding the actual permanent vocational training; Insufficient funds and structures allotted to finance permanent vocational training; Defective quality regarding the actual permanent vocational training, including quality assurance on all levels to promote administration of and to monitor the permanent vocational training towards a final result. All state and private institutions involved in training must do what it takes to assure equality of chances no matter the age, sex, ethnical orientation, deficiencies, economic status or geographical situation of the trainees. Schools will cooperate with all institutions necessary to reach their goals. The principals, managers, administrative councils and the personnel must analyse the following: the type of school / institution they are or want to be; the values that are important within a particular school; the target market and its thorough identification according to the activities offered by other training providers; whether these target markets are likely to change in the future; in what way the role and the purpose of one school differs from those of other schools (both public and private schools) in the same region; whether the school really obeys the principle of client needs or whether its activities are centered around the offer proper; the way in which the school / institution is able to cooperate closely to several other partners, including schools/economic agents; the type of these partnerships and the cooperation networks.

2. Strategic planning, marketing strategy and educational institution

It is only a strategic planning that can indicate the educational programs and the target markets upon which the institutions must focus. Educational institutions must develop a marketing strategy for every program selected or target market chosen to promote. The formal marketing plan will synthesize the information and analyses that will sit at the basis of a certain strategy and will detail the way in which that strategy can be put into practice. Any educational institution must elaborate several strategic alternatives as a response to the market particularities and requests. Each and every time they must choose the best option according to the characteristics of the market. The matrix for the market program/opportunities can help the management department to come up systematically with new options. The newly discovered ways can be analysed carefully for their own equilibrium, for the market stability, costs or other components. Creating a competitive environment with the educational domain will necessarily lead to the introduction of some professional management systems and of some new marketing techniques adequate to these systems. Only by using the specific marketing strategies and techniques will educational institutions be able to take part in an actual competition, which aims to offer the services most useful to the market. Using educational marketing can create a permanent competition between educational institutions and vocational training centers for the following gains: students and trainees; the best teachers and trainers; public and private finance; increase of tax collections and of services on the market; heritage development (equipment, buildings, research centers, etc.); expansion on regional and national level; national and international reputation (reflected in the profile statistics); obtaining authorizations and recognition of the diplomas. An overall look on the permanent vocational training in Europe and the United States showed surprising changes a few years ago. The traditional system has been abandoned in many training centers in order to meet a more insecure future. Orientation and behavior change on the part of the trainee has jeopardized many institutions that were unable to understand the necessity of reorganization. Competitiveness and financial resources have become the great challenges that question the capacity to survive of some institutions in the 21st century. Adaptation to social and economic

changes, to the needs and expectations of the consumers is reflected in the high development of the institutions involved in training. The successful institutions' 'upbringing' has been based on a mix of technology, studying accessibility and new learning paradigms, capable of satisfying the needs of a new type of educational services consumer. In order to succeed, both state and private institutions involved in training have had to elaborate and put into practice some marketing strategies and, moreover, to make the necessary and realistic changes as far as the educational curriculum is concerned. They have to have been changed in such a way that they meet the goal and the objectives established. The target population for permanent training has met with fundamental modifications in all economically developed countries of the world, which has led to the need to abandon the traditional training techniques based on a certain age of the trainee, on a formal institutional framework of the classes or on classical, conservatory teaching methods. New technologies and new alternative teaching methods have appeared which aim at making education more accessible to different, unconventional market areas. At present, those professional institutions whose main objective is permanent vocational training have directed their efforts towards adults who try to specialize in various dynamic economic domains, to suffer vocational reconversion, to complete certain competences necessary in the context of a rapid evolution of economy and society or to maintain their professional standards at their workplace. The external, economic, social and political environment have changed so much in Romania as well, that the educational system also felt the need to make some fundamental changes in this respect. Permanent vocational training is one of the domains that suffered a blasting increase in the years following 1992. Many private institutions appeared, as well as a great number of new specializations in the state institutes, which needed experienced workers. Various training programs appeared on the permanent vocational training market, but a lot of them were defective in point of quality. Many laws were issued to regulate permanent vocational training and, as a result, a coherent framework was shaped for the permanent vocational training system to function on. Nevertheless, the framework has suffered some further improvements by means of law amendments. Moreover, the problem of qualitative learning has been considered a real issue all around the world lately. Specialists think that high standards have lowered so much that some countries have started worrying about the consequences of defective quality, more and more obvious within society. En masse education represents the main factor of the economic crisis marking the European economy at present. It has been statistically recognized that poorly educated graduates no longer find jobs. This fact affects society, which has itself spent money for their education. Additionally, these graduates become a responsibility of the community, burdening the public finances to pay unemployment benefit. In Canada and the United States poor quality teaching is more obvious in the state sector both concerning permanent vocational training and universities. Private universities keep on being more selective in point of educational preparation of the students – especially the acknowledged ones – compensating this way for the quality deficiencies of the mass education. This is why the American economy is less affected than the European economy. The qualitative American learning is attractive to a great number of students around the world, which is the reason why Europe has started fight to this fierce competition. According to some academic managers, competition in the educational system will become fiercer in the years to come. Academic learning institutions in our country could easily be dismissed from the market in the years following the European integration because of their ancient, extremely bureaucratic and fund less structures. There are approximately 4.000 youngsters who leave the country every year to study abroad. This number is not too big related to the total of 60.000 students who join the university annually. But the real problem is that those youngsters who go abroad are the smart ones. Further, the list is completed with students who win scholarships in American universities and they are no less smart. Finally, there is the category of youngsters whose parents prefer to pay more for the studies abroad in the hope that they will have better perspectives in their future careers. Consequently, a vicious circle is created. On the one hand the number of youngsters decreases because of the constant low birth rate after the 1990s and,

on the other hand, less talented and smart teenagers remain in Romania because the integration of our country in the European Union and a new distribution of incomes create new perspectives for them in point of vocational and career orientation. In order to allure students our universities make quite a lot of compromises. And this fact has become most obvious starting with the academic school year 2000-2001. The phenomenon has repeated itself in the following years as well and it was quite clearly seen in the fact that private universities did not have enough candidates for the number of places released even if several entrance sessions were organized. In the end, the entrance examination was replaced by the final Bacalaureate grade. There were even some state universities that were confronted with this problem, but the deans of such universities had no problem reassigning the spare places. In order to control the learning quality and the permanent vocational training as well as possible, every European country has created – starting with 1990 – national authorities, agencies, quality evaluation and authorization committees to supervise learning. They have appeared as a response to the rapid evolution of learning systems which the ministries of education could no longer control. Minimum qualitative standards have been established at a European level, according to which specialists have to be trained. Those universities that will not take these requests into account will be dismissed from the educational market.

In Romania, the system of monitoring learning quality has been established only on judicial level. It will be no longer possible to continue with the present system because of the demographic decline. In this case, many of the permanent vocational training institutions will simply surrender. At present, The Ministry of Education and Research has not come up with any strategy to solve this problem. All the research so far and different other analyses conducted on the market concerning the educational system show that educational institutions in Romania have no personal development strategies no matter the level of study or the social status – state or private institutions. They are not anchored to the economic system and they are not engaged in more competitive relationships because a very ‘friendly’ environment has been created for them. On a market characterized by the desire to acquire a diploma - just like it was after the 1990s- with minimum of costs and effort, educational institutions were able to develop ‘naturally’ because they had no real competitors. That is why the educational product has not evolved according to some clear standards and distinct declarations, to some fundamental values on which the long term strategies should have normally been built. The educational product has only been an element belonging to some circumstances specific to the educational domain, and not a nucleus around which price policies should have been built and to which marketing strategies should have been applied. Because of the unfriendly environment that has been forecasted, only those institutions that will be capable of building their own coherent strategies with educational marketing as a key point of development will have any chance of survival on the market. Expanding the marketing domain to education is a reality that reflects the new requests of the modern society, and the present situation on the Romanian educational market shows that using these techniques at least empirically can lead to actual benefits for their users. Research conducted in the south-east of Romania for the permanent vocational training shows that, at present, institutions do not have their own marketing department, although their strategy development plans refer to its importance. There are only a few such institutions which have been able to create a public relations nucleus that helps them create a clearer image on the educational market. Neither here, unfortunately, the activity is oriented towards consumers by anticipating their needs and wants. This situation is reflected in the organization of the institutions on domains which are easier to cover and structure and also easier to sustain financially. Lack of marketing strategies to attract donors (local and central administration authorities, agencies, etc.) and investments proves the same thing. The lack of cooperation with the market and with the beneficiaries of the permanent vocational training system results in the creation of some strong barriers between the request and the actual offer. This fact has been demonstrated by the lack of ability on the part of

schools or the training providers to gain some financial sources from the business community which, theoretically, is the main beneficiary of the educational products. Even those institutions that actually use marketing – be it declared or intuitive – to promote and develop educational programs and services recur to a global, undifferentiated marketing. The educational system – even the marketing oriented system- does not have clearly divided departments of educational marketing. Their need has started to be felt, and the proof of this is the declaration made by some educational institutions expressing their intention to create such a department. This tendency is more and more obvious in the Transilvanean area, where the idea of entrepreneurship in the educational activity has started to shape better. But there is still a long way from the declaration to create and implement some educational marketing strategies until their actual creation and implementation, even in the case of those institutions which have improved and modernized their methods of approaching the public. The moment when permanent vocational training institutions will actually conceive some marketing strategies will be that moment when the funds allotment (budgetary or community funds, international programs funds, sponsorship, etc.) will be distributed according to some educational marketing classifications conducted by independent organizations or with the help of surveys among the beneficiaries (trainees, graduates, employers). It is a fact that the small number of young population, according to demographic statistics, will contribute to the rearranging of the training systems on the market, where competitiveness will be one of the most objective criteria to adjust the training market in the near future. There is, for now, a certain competition between the acknowledged training providers and those providers in the big cities, as well as between the private centers and the state institutions of training. But competition is at an early stage even in these cases. Suppose that there will be an orientation towards the consumers by understanding the way in which they prefer the services in case of unaccepted working environment, there is a chance of survival for those institutions which will be capable of conceiving their own coherent marketing strategies based on educational marketing. Expanding the marketing domain to education is a reality that reflects the new requests of the modern society, and the present situation on the Romanian educational market shows that using these techniques at least empirically can lead to actual benefits for their users.

The orientation towards the consumers by understanding the way in which they prefer the educational services and towards the means which will encourage them to buy these services is nowadays represented only by the development of the permanent vocational training system and the maintenance of a low tax level. Private kindergartens and inclusive learning schools are the only educational institutions that recurred to a segmentation of the market in order to gain clients. In their case competition is quite small, but gaining the clients is quite a challenge due to the reduced number of people who can afford to pay for these educational services. They are the only institutions that have shown any interest in developing some programs meant to be attractive for their target training market. Private education units generally use an offensive communication strategy in order to promote themselves on the market and to recruit students. The marketing politics will be materialized at all educational levels by means of leaflet distribution to present the annual education plan, local mass-media and educational fairs which the local school units participate in. As far as preschool education is concerned, marketing politics present some specific features, such as visits to the school and parents discussion.

Although this direct relationship with the beneficiaries of the educational services has proved to be efficient, it is not very common for the other levels of education. At the university level, the dialogue with the future students and an analysis of their actual needs are only formal and take place strictly during the period before the entrance exams, when university representatives visit high schools to make a flat presentation of their educational offer. The academic management seems to be satisfied with some official declarations made by their institutions

with the help of a press office run by inexperienced students or newly graduates who have neither the necessary competences nor a real strategy to develop a visual image on the market. Both printed and oral publicity (by word of mouth) occupy an esteemed place in the structure of promotional activities. There are a few shy attempts made by some universities that have initiated some activities in order to cultivate a certain pride of its ex- students. They belong to a certain graduates' association of the type Alumni and are trying to set up a tradition for the graduates to meet periodically, to issue votive medals, etc. Among the common actions on the Romanian academic level we can give the examples of symposia, annual students' seminars, periodicals or contests organization which are meant to create spiritual bonds between generations and to produce a certain impact on the target market.

No matter their needs or preferences, the beneficiaries of the educational services do not have many alternatives to choose from. There are no differentiated offers on the market, and the ones that have certain qualities or seem more attractive are simply forbidden to them out of various reasons. The most important reason is the low purchasing power of the majority of people in Romania. Although there are many youngsters interested in training centres abroad, the low purchasing power simply blocks this kind of transactions. Consequently, the international competition is blocked as well. Given the context, the educational institutions are certain to conclude that they have to set up marketing departments, with specialists who will be responsible for issuing marketing politics necessary to face competition on the market. Only in this way will the management department be able to take rapid decisions that will take into consideration the characteristic features of the market: dynamics, structure, change rate, demands and competition level. A mature educational market based on new technologies, on international standards and on high power of acquisition on the part of the clients (where the clients are the beneficiaries of the educational services) will force the educational institutions to define the proper strategies to match these changes. Marketing will definitely have a defined role and place in this process because with its instruments the management department will be able to identify the proper means and methods to implement the development strategies or to adjust the balance between consumer's needs and the possibilities of the institution.

The type of marketing functioning in educational institutions will bring along a better view of the political, law-marking, economic, technological and social environment, of the market environment, of the local, regional and even European educational sector. Having a good knowledge of the size, potential of the educational services market and of the beneficiaries' behavior allows the understanding and appreciation of the competitive advantages. This way the best distribution ways and the most accessible prices will be chosen by dividing the market into target groups or by establishing some differentiate product policies: according to quality, uniqueness, brand or other services related to the educational process proper. The first step in this process of change is, undoubtedly, represented by the training and specialization of the managers running an educational institution. It is them who are responsible with the cooperation and good practice of a professional, individual and coherent activity within the educational marketing domain. The marketing activity will permanently monitor the environment, the educational market, the competition and the actual results. Moreover, it will issue the strategic plans by which every member's contribution to the general goals fulfillment is established.

The existence of a competitive environment which tends to be more and more dynamic, 'richer' with opportunities and dangers justifies the need to adopt some competitive marketing strategies. Managers, but marketing specialists also, are challenged to face these situations created not only by the competition itself, but by the worldwide economic globalization as well. It takes good knowledge of concepts for the strategic planning and for the formulation of the strategies in order to reach the goals. But this would definitely be a clear advantage in

winning a good position on the market as far as a certain activity domain is concerned. Yet as a response to the market requests, the typology for the marketing strategies is vast and constantly changing. We can even talk about a strategic behavior of the economic agents that try to adapt to the situation and to develop original strategies at the same time which will further bring them a leader position on a certain market.

Apart from the many strategies that actually function in practice, there are also a considerable number of unconventional strategies that are less known by people and that are considered helpful alternatives used by the competition. These strategies have usually come into use thanks to the well-developed skills of those who work in the marketing domain and thanks to the experience they gained along the way, thus permitting them to develop and implement new strategies, different from those of the competition. It is worth to know the fact that those competitors that use this kind of strategies have harmonious behavior on the market, because they will always be forced to discover and actually use new strategies, which are unconventional most of the times. Consequently, the variety of marketing strategies widens as soon as the possibility to penetrate the external market appears. In this case, of course, a study of the international market and its opportunities is needed. As far as the marketing mix is concerned, the matching strategies will be developed permanently, with the purpose that either some original or borrowed strategies are adopted. Moreover, the marketing mix strategies can be either innovative or conservative, belonging to the market leader, the challenger or the survivors. The *push* and *pull* strategies are famous, and they tend to focus either on 'pushing' the product (service) towards the client or 'pulling' the client towards the product. There are also the public relations strategies -whose purpose is to determine a certain behavior for the target group - ; the aesthetic strategies –that aim at creating and promoting a distinctive image for the company and product – and many other examples from different domains.

It is quite obvious by now that the role of marketing is to exist as a framework, a starting point in the process of shaping strategies for a company, being aware of the fact that it is the actual practice which has always been developing new, optimum strategic alternatives. What is known for sure is only the fact that a strategy represents its capacity to transform the company into a winner at the end of a real, free and loyal competition. Shaping the leadership at the institutional level is the most important part in the changing of the educational system in Romania, together with orientation towards the internal clients needs (trainees, trainers, administrative personnel, etc) and the external ones (employers, donors, etc.). It is the leadership that will transform a reactive system into a proactive one, with the help of the many generous marketing instruments applicable to the educational institutions as well.

3. Conclusion

There are still a lot of problems in Romania related to initial-stage training and permanent training. The initial-stage training system does not accept the certificates obtained as a result of the permanent training system for the next level of studies. Usually there is no correspondence between the certificates obtained at the end of an adult vocational training course and the certificates issued by the national educational system. And the partial acknowledgement system is unaccepted. Consequently, it is quite difficult to speak about shaping the training programs under these circumstances. Both employers and employees generally have the same attitude towards training, an attitude characterized by a fading interest or even a lack of interest in permanent vocational training, with the exception of those cases when the training is vital and the costs are minimal. Employers will always be pleased to find ready-trained and well-prepared employees on the market rather than investing their capital in vocational training. They prefer that the trainees invest their own time and money in their vocational training

separately from the company they work for. It is vital that the following measures be taken in order to increase the number of working population:

- ✚ Motivate the company owners to recruit unemployed people belonging to under-privileged groups (long-term unemployed people, physically challenged people, young orphans);
- ✚ Increase the number of working women in the women activity sectors;
- ✚ Adopt a new law regarding the workforce employment and the social protection for those who seek jobs;
- ✚ Adopt a new set of laws regarding employment and social protection;
- ✚ Align the labour laws to the European framework regarding employers' rights protection in case of changing companies or businesses and in case of bankruptcy;
- ✚ Accept the principle of equality between men and women in all domains and at all social levels;
- ✚ Adopt a set of laws that will guarantee women's right to security and physical and psychological integrity, as well as reject any forms or manifestations of violence against women both at home and outside; promote educational programs in the spirit of respecting human rights and democracy;
- ✚ Start a medical insurance reform by changing the public pension and medical insurance system, by introducing the private administration of universal pension funds and by introducing extra insurance;
- ✚ Develop the services that help to recover the working capacities inside of the public system of pension with a view to a possible social and professional reinstatement.

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New Research Perspectives in the Emerging Field of Computational Intelligence to Economic Modeling

Vasile MAZILESCU

vasile.mazilescu@ugal.ro

Cornelia NOVAC-UDUDEC

cnovac@ugal.ro

Department of Economic Informatics

Daniela ȘARPE

d_sarpe2000@yahoo.fr

Mihaela NECULIȚĂ

neculitam@yahoo.fr

Department of Economics

Dunărea de Jos University of Galați, 47 Domneasca Street

Abstract

Computational Intelligence (CI) is a new development paradigm of intelligent systems which has resulted from a synergy between fuzzy sets, artificial neural networks, evolutionary computation, machine learning, etc., broadening computer science, physics, economics, engineering, mathematics, statistics. It is imperative to know *why* these tools can be potentially relevant and effective to economic and financial modeling. This paper presents, after a synergic new paradigm of intelligent systems, as a practical case study the fuzzy and temporal properties of knowledge formalism embedded in an Intelligent Control System (ICS), based on FT-algorithm. We are not dealing high with level reasoning methods, because we think that real-time problems can only be solved by rather low-level reasoning. Most of the overall run-time of fuzzy expert systems is used in the match phase. To achieve a fast reasoning the number of fuzzy set operations must be reduced. For this, we use a fuzzy compiled structure of knowledge, like Rete, because it is required for real-time responses. Solving the match-time predictability problem would allow us to built much more powerful reasoning techniques.

Key Words: Computational Intelligence, FT-Algorithm, ICS, Knowledge Formalism

JEL Code: D80, C45

1. Introduction

CI has a long history of applications to business - expert systems have been used for decision support in management, neural networks and fuzzy logic have been used in process control, a variety of techniques have been used in forecasting, and data mining has become a core component of customer relationship management in marketing [3,4,5,8,10,11]. While there is literature on this field, it is spread over many disciplines and in many different publications, making it difficult to find the pertinent information in one source. Fuzzy logic is an attempt to capture valid reasoning patterns about uncertainty. In addition to modelling the gradual nature of properties, fuzzy sets can be used to represent incomplete states of knowledge. In general, a

more complex model may provide the capability to obtain a better representation of a system and may facilitate design, but it may not lend itself to straightforward analysis. If a simpler model is used, one may ignore some of the dynamical behaviour of the plant (problem domain) and be able to get more analytical results, but such results may only be valid in an approximate way for the real system. There will be different analysis techniques that are appropriate for different models (conventional, discrete event models, distributed architectures etc.). [5,7,12,13,14,16] introduce fuzzy general equilibrium analysis and present the aggregated model of microeconomics with *fuzzy behaviors*, the state of the art in the *fuzzy theory of value*, extend the application of fuzzy logic to *noncooperative oligopoly*.

The aim of this paper is to present the fuzzy and temporal properties of knowledge formalism embedded in an ICS. It is a special possibilistic expert system, developed in order to focus on fuzzy knowledge. In this approach we are not dealing high with level reasoning methods, because we think that real-time problems can only be solved by rather low-level reasoning. Fuzzy logic is not only just attractive for business practitioners, but it has also been incorporated into mainstream formal economic analysis. The ICS engine represents a method of fast fuzzy logic inference. It must provide guaranteed response times, completing its reasoning within a deterministic amount of time. Systematic analysis methods must be used so that the possibilistic expert system behaviour can be studied quantitatively within the developed modelling framework [15].

The paper has 4 sections. Section 2 reveals the three main pillars of CI methodologies. All of the CI techniques introduced in this section have been applied to many disciplines, including mathematics, engineering, computer science, physiology, psychology, physics, chemistry, biology, brain research, bioinformatics, social sciences, etc. Section 3 presents as a case study, the main properties of the fuzzy and temporal properties of knowledge formalism embedded in our ICS, based on FT-algorithm, where are stated the analogy between expert/classical control systems and the reasoning algorithm of fuzzy compiled rules. Section 4 makes concluding remarks and future directions of research.

2. A New Paradigm of Intelligent Systems

Most definitions on CI, include at least the following three main pillars of CI methodologies: fuzzy logic (FL), artificial neural nets (ANN), and evolutionary computation (EC). However, given these three basic pillars of methodologies, disciplines which share some similar or related features have been developed at different stages and they may be included as well. In fact, without a tight and formal definition, CI can easily be broadened by bringing them together. This “soft membership” actually enriches each of the participating disciplines and fosters new research perspectives in the emerging field of computational intelligence.

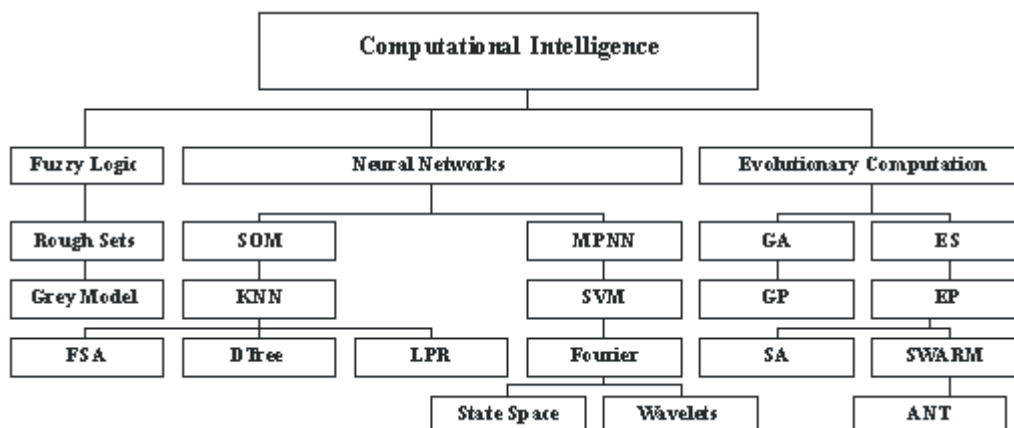


Figure 1. A family tree of computational intelligence

Figure 1 shows a possible hierarchy of the methodologies for CI [5]. At the top level the three main branches are: fuzzy logic, artificial neural nets, and evolutionary computation. They are arranged from left to right, which is consistent with the chronological order of their development and growth. Starting from the fuzzy logic, the tree extends down to *rough sets* and further down to the *grey model*. This branch can be considered as a response to two pursuits for the study of intelligent behavior. Next, starting from artificial neural networks in figure 1, the path is first divided into *supervised learning*, the *multilayer perceptron neural networks* (MPNN), on the right, and *unsupervised learning*, the *Self-organizing maps* (SOM), on the left. Continuing down along the SOM branch, we encounter the *K nearest neighbors* (KNN), and further down a division into three branches: *finite state automata* (FSA), *decision trees* (DTree), and *local polynomial regressions* (LPR). The SOM branch reflects the movement from the *time domain* to the *feature domain* in time series modeling (the left panel of figure 3). In the time-domain models, extrapolation of past values into the immediate future is based on correlations among lagged observations and error terms.

The feature-based models, however, select relevant prior observations based on their symbolic or geometric characteristics, rather than their location in time. Therefore, feature-based models first identify or discover features, and then act accordingly by taking advantage of these features. In that way, the movement can also be regarded as a change from the *global modeling strategies* to *local modeling strategies* (the right panel of figure 2). Consequently, one hopes that an extremely globally complex model can be decomposed into many locally simpler models.

Features can be symbolic or geometric. Dealing with symbolic features, what one needs is a grammar. FSA or another even more powerful language provides the grammar required to define or to describe symbolic features, whereas SOM can tackle geometric features. Decision trees can automatically identify the symbolic features with limited logical operation, such as a limited number of ANDs and ORs. FSA, SOM and DTree classify individual objects as groups, while KNN and LPR leave individuals with a greater degree of freedom. They do not assign features to individual objects; instead, they leave each individual to select his/her own neighbors based on his/her preferences (distance metrics). FSA and SOM only carry out the task of grouping. How one should act upon each feature (group) is left for other tools. KNN, LPR and DTree can build simple models, usually linear ones, simultaneously with grouping. Branching down in the second half of the ANN tree, we have the *support vector machine* (SVM) below MPNN. However, the latter can be treated as a generalization of the former. Further down, we have *Fourier analysis* and *wavelets*. The former is again an alternative approach to time series modeling, which places emphasis on the *frequency domain* rather than the *time domain*. Actually, time series modeling moved from the frequency domain to the time domain during the 1980s, historically speaking.

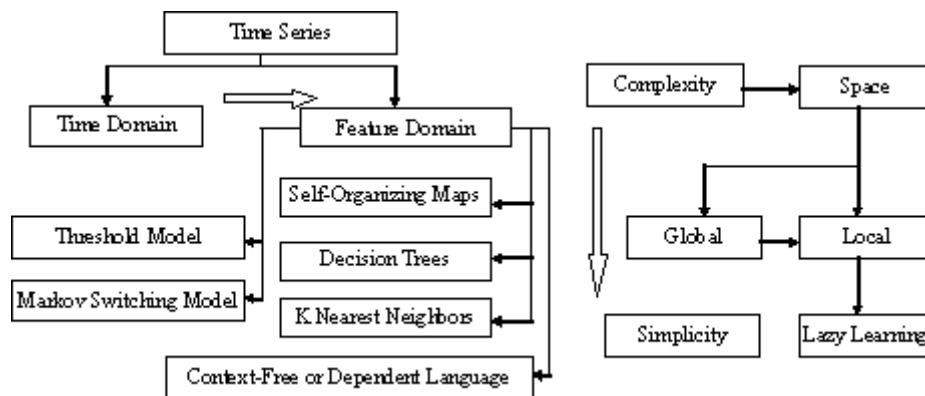


Figure 2. Paradigm shifts from the time domain to the feature domain: complexity reduction

Finally, we focus on the rightmost part of the tree in figure 1, i.e., evolutionary computation. Based on its historical background, this node can also be further divided into two branches.

Evolutionary strategies (ES) and *evolutionary programming* (EP) are put on the same side, whereas *genetic algorithms* (GA) is left on the other side. Historically, the operation of ES and EP has relied exclusively on *mutation*, while that of GA depends heavily on *crossover*. However this historical difference has become indistinguishable as time evolves. There is, however, another historically significant distinction existing between them, i.e., the *coding scheme*. ES and EP commonly used real coding. By contrast, GA chose to use binary coding. Again, this difference has become weaker gradually. Nonetheless, genetic programming (GP), a generalization of GA, uses the parse-tree coding (like context-free language), which establishes a distinct character in a more dramatic manner than the other three evolutionary algorithms.

The last historical difference among these four algorithms is from the viewpoint of the application orientation. ES was originally designed to deal with numerical optimization problems, whereas EP and GA were initiated for simulating intelligent behavior. This difference has also become negligible, as they have all emerged as standard numerical tools today. While considering the numerical tools for solving complex optimization problems, we also attach *simulated annealing* (SA) and *ant algorithms* (ANT) as two other alternatives. SA is included because it has frequently served as a benchmark to evaluate the performance of evolutionary algorithms. ANT has been chosen because it is a representative of *swarm intelligence* and its application to financial problems has just begun to draw the attention of researchers. This subtree:

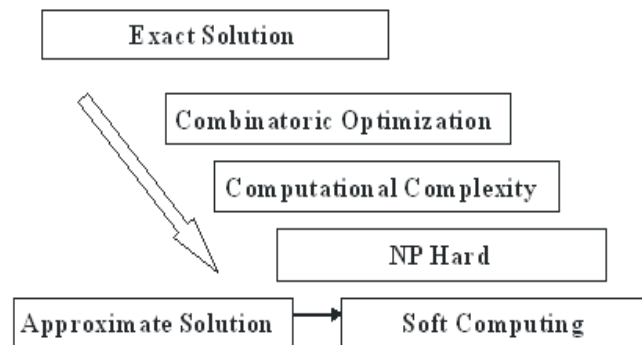


Figure 3. *Paradigm shifts from hard computing to soft computing*

has seen rapid growth and the popularity of *soft computing*, a term coined by Prof. Lotfi Zadeh. In the domain of highly complex problems, precision is neither possible nor often desirable (figure 3). Heuristics or approximation algorithms become the only acceptable tools. GP has a more general purpose. It was proposed to *grow the computer programs* which are presumably written by humans to solve specific problems. Since the users of GP do not have to know the size and shape of the solution, it becomes a very attractive tool, indeed, for nonparametric modeling. The increasing reliance by researchers on GP and artificial neural nets also reveals a stronger demand for nonlinear and nonparametric modeling (figure 4).

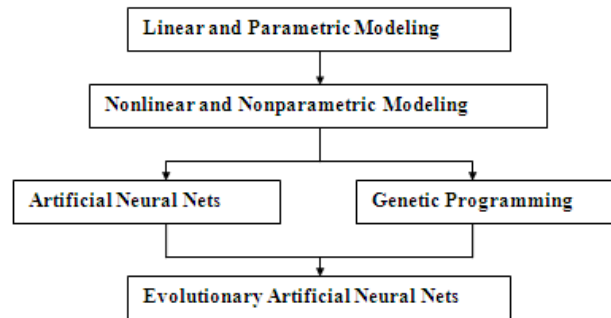


Figure 4. Paradigm shifts from linear parametric modeling to nonlinear nonparametric modeling

Evolutionary computation is generally considered to be a consortium of *genetic algorithms* (GA), *genetic programming* (GP), *evolutionary programming* (EP), and *evolutionary strategies* (ES). Evolutionary computation starts with an initialization of a population of individuals (solution candidates), called $P(0)$, with a *population size* to be supplied by the users. These solutions will then be evaluated based on an *objective function* or a *fitness function* determined by the problem we encounter. The continuation of the procedure will hinge on the *termination criteria* supplied by users. If these criteria are not met, then we shall move to the next stage or *generation* by adding 1 to the time counter, say from t to $t+1$.

3. The fuzzy and temporal properties of knowledge formalism embedded in ICS

The fuzzy logic inference plays an important role in human intelligent activities. When humans engage in make decisions, the approximate, qualitative aspects of knowledge are hierarchically organized to provide concept association and reasoning. By using a compiled structure of a fuzzy rule-base, the reasoning process is efficiently and fast performed. All works related to decision-making under fuzziness stem from Bellman and Zadeh [1] framework. Its basic elements are: the fuzzy goal FG in X , the fuzzy constraints FC in X and the fuzzy decision FD in X ; X is a (non-fuzzy) space of decision (alternatives). Before we describe how to improve control, we must describe what it means to improve; in other words, we must chose a characteristic function f that will describe to what extent a control or a decision is good. It may be time, it may be cost, it may be fuel consumption.

The general decision-making problem formulation: given a (crisp) function $f : X \rightarrow R$ and a fuzzy set $FC \subseteq X$, to find $x \in X$ for which $f(x) \rightarrow \max_{x \in FC}$. What is given can be easily formalized. By a maximization problem under fuzzy constraints FC we mean a pair (f, FC) , where f is a (crisp) function from a set X into the set R of all real numbers, and $FC \subseteq X$ is a fuzzy subset of X . Generally speaking, there are two possibilities here: **a)** In decision making, what we want is some help for a decision maker. Therefore, we want the computer to produce several possibly optimal solutions, with the corresponding degree of possibility optimal. In fuzzy terms, we want a membership function $\mu_{FD}(X)$ that describes an optimal solution; **b)** In control, we want an automated device that controls without asking a human operator every time; in this case, we would prefer a number x . Notice that if $f: X \rightarrow R$ is a conventional objective (performance) function, then

$$\mu_{FG}(x) = f(x) / \sup_x f(x)$$

is a plausible choice provided that $0 \neq \sup_x f(x) < \infty$; so, the fuzzy decision-making framework considered may therefore be viewed as a generalization of the conventional one. We wish to satisfy FC and attain FG which leads to fuzzy decision $\mu_{FD}(X) = \mu_{FC}(X) \wedge \mu_{FG}(X)$ which yields the "goodness" of an $x \in X$ as a solution to the decision-making problem considered from 1 for definitely perfect to 0 for definitely unacceptable, through all intermediate values. The " \wedge " (minimum) operation is commonly used. It is by no means the only choice, and may be replaced any t-norm or am suitable operation. For an optimal (non-fuzzy) solution to this problem, an $x^* \in X$ such that

$$\mu_{FD}(x^*) = \sup_{x \in X} \mu_{FD}(x) = \sup_{x \in X} (\mu_{FC}(x) \wedge \mu_{FG}(x))$$

is a natural (but not the only possible) choice. In the general setting assumed here we have a deterministic system under control, whose dynamics is described by a state transition equation

$$x_{t+1} = f(x_t, u_t), t=0,1,\dots,$$

where $x_t, x_{t+1} \in X = \{x\} = \{s_1, \dots, s_n\}$ are the states at time (control stage) t and $t+1$, respectively, and $u_t \in U = \{u\} = \{u_1, \dots, u_m\}$ is the control (input) at t ; X and U are assumed finite. At each t , u_t is subjected to the fuzzy constraints $\mu_{FC t}(u_t)$ and a fuzzy goal $\mu_{FG t+1}(x_{t+1})$ is imposed on x_{t+1} . The performance of the multistage decision -making (control) process is evaluated by the fuzzy decision which is assumed to be a decomposable fuzzy set. It may readily be seen that this general formulation may be viewed as a starting point for numerous extensions (our aim is the conditional optimization problem in terms of compiled fuzzy if-then rules).

An important application of the fuzzy logic inference refers to the problem of possibilistic and temporal reasoning in real-time fuzzy expert systems. Let $s_0 \in U$ denote the unknown current state of a process under consideration. U may be viewed as the Cartesian product of domains $U^{(i)}$, attached to attributes $P^{(i)}$ that are chosen to characterize s_0 . We suppose that s_0 is a n -tuple $(s^{(1),0}, \dots, s^{(n),0})$ of attribute values $s^{(i),0} \in U^{(i)}$, $i=1, \dots, n$. The definition and application of fuzzy expert systems consists of four phases, which can be distinguished conceptually as follows: *i*) In the first phase the knowledge acquisition which leads to appointing the attributes $P^{(1)}, \dots, P^{(n)}$, $n \in \mathbb{N}$ and their domains $U^{(1)}, \dots, U^{(n)}$.

Fixing the universe $U = \Pi(U^{(i)})_{i \in \mathbb{N}_n}$, $\mathbb{N}_n \subset \mathbb{N}$ provides the representation structure for the expert knowledge and forms the set of all states that are a priori possible; *ii*) In the second phase rules are formulated that express general dependencies between the domains of the involved attributes $P^{(1)}, \dots, P^{(n)}$. The single rule R_j , $j=1, \dots, m$, $m \in \mathbb{N}$, do not concern all attributes normally, but only a small number $P^{(i)}$, $i \in M_j$, which are identified by an index set $M_j \subseteq \mathbb{N}_n$ of low cardinality.

The matching window is either a point, or a rectangle, depending on whether the matched fuzzy proposition holds at a time point or in a time interval. First, we should determine the time domains of variables in the database, or in other words, determine the size of the matching window and its position, by giving priority to the temporal matching. In the case that the event described by a fuzzy fact has appeared or is appearing, we can continue to perform the numeric matching. The application of the fuzzy formulation is advantageous in cases when small violations of specific constraints may be tolerable for the decision-maker with the goal to achieve a more reasonable objective.

Therefore, there exist some unique problems in the fuzzy reasoning procedure: the successful pattern-matching of a fuzzy rule not only requires that all the fuzzy propositions in the rule's premise should match the data in the database in a fuzzy sense, but also requires that the temporal relations among these fuzzy propositions should match the temporal relations implicitly formed by the corresponding dynamic situations in the database in a fuzzy sense. A model associated with an ICS and which is also based on a temporal reasoning should meet the following requirements, as outlined in the following **FT-algorithm**:

FT-Algorithm

- A fuzzy compiled rule base
- Fuzzy database with fuzzy temporal relations

1. Find a time range associated with the time variable $X^{(i)}$, $i= 1, \dots, n$ from the database according to the fuzzy descriptor DT, where

$$\Delta T = \left(\int_T \frac{\mu_1(t)}{t}, \int_T \frac{\mu_2(t)}{t} \right),$$

the sentence P_i associated with variable $X^{(i)}$ is assumed to be within on interval DT formally described by

$$DT \left(P_i, \int_T \frac{\mu_1(t)}{t}, \int_T \frac{\mu_2(t)}{t}, m \right)$$

This way, we can find the size and the position of the matching window, priority been given to the temporal matching

2. Perform the temporal pattern matching in compliance with the existing temporal attributes. If (the temporal pattern-matching is successful) then compute its degree of confidence and proceeds to step 3 otherwise rejected situation

3. Perform the numeric pattern matching by using the pair Π and N . If (the numeric pattern-matching is successful) then continue the fuzzy reasoning algorithm based on compiled fuzzy rule base otherwise rejected fact. The numeric pattern-matching calls for the synthesis of $X^{(i)}$ based on associated values $x^{(i)}(t)$, $t \in DT$ into a single value

4. Complete the global pattern matching with both new facts derived from the process and already with the inferred facts. More specifically finish the fuzzy reasoning process starting from a given fuzzy state up to its (finite) limit passing through a sequence of internal states of the possibilistic expert system

5. Defuzzify outputs to obtain the results for all output variables

The ICS has to be designed so that it can eliminate the undesirable system behaviours. There is a need to specify the initial state of the closed-loop system to reduce the combinations that may complicate the model. In analysis, the focus is on testing the closed-loop properties [5]: reach ability (firing a sequence of rules to derive a specific conclusion), cyclic behaviour of the fuzzy inference loop, stability (the ability to concentrate on the control problem). We start with a simple model of an expert system (the database is $BF = \{F_1, \dots, F_m\}$ and the rule base is $R = \{R_1, \dots, R_n\}$). The rule R_i has the form $C_1, \dots, C_k \rightarrow A_1, \dots, A_p$. The conditions of rule R_i are under the set of causes $COND(R_i) = \{C_1, \dots, C_k\}$. Let $VAR(C_j)$ ($j=1, \dots, k$) be the set of variables

that occur in condition C_j and $\text{VAR}(\text{COND}(R_i))$ the variables present in $\text{COND}(R_i)$. The pattern-matching algorithm entails two steps: the conditions/fact pattern matching and the variables linking. A condition C filters a fact F if it can be determined a substitution σ so that $F = \sigma \cdot C$. The substitution σ can be represented through a list of pairs under the form $\sigma = \{t_1/v_1, \dots, t_s/v_s\}$, where the pair t_i/v_i means that the variable v_i in condition C will be replaced by the term t_i .

Applying the substitution σ to condition C we obtain its instantiation C' , resulting the relation $C' = \sigma \cdot C$. When a fact filters a condition, it is an instantiation of the condition. The condition C may filter several facts in database, which may be reunited in the instantiation, set of the condition C , noted $I(C)$. This set satisfy the following relations: $I(C) \subset BF$, $(\forall) F_i, F_i \in I(C)$, where F_i is an instantiation of the condition C , and there is a corresponding substitution σ_i , so that $F_i = \sigma_i \cdot C$. It follows that $I(C)$ can be represented by the list $I(C) = \{(\sigma_1, F_1), (\sigma_2, F_2), \dots, (\sigma_q, F_q)\}$ and $F_i = \sigma_i \cdot C$. Repeat the elementary pattern-matching for all the rules until obtain the instantiation sets of all the conditions.

The algorithm based on the repeated condition/fact pattern matching is inefficient because of the numerous redundancies. The purpose of the second step is to find the antecedent instantiations for all the rules. This step occurs on the level of the global conditional part evaluation of the rules and a delicate operation is the linking of the variables (it permits the substitutions compatibility verification) shown as follows: for a rule R_i with $\text{COND}(R_i)$, it is required to find a set $\{(\sigma_1, F_1), \dots, (\sigma_k, F_k)\}$ so that $(\sigma_i, F_i) \in I(C_j)$ and $F_j = \sigma_j \cdot C_j$, $j = 1, \dots, k$. If the terms associated to the common variables are identical, then the substitutions $\sigma_1, \dots, \sigma_n$ are consistent.

The consistent substitutions composition are noted $\sigma = \sigma_1 \cdot \sigma_2 \cdot \dots \cdot \sigma_k$ which contains all the distinctive variables of the substitutions. The substitutions consistence verification consists on a symbolic comparison. If there is in database fuzzy facts, the consistence verification of the substitutions is much more difficult, like in classical one. The fuzzy pattern-matching aims to determine the instantiations set of the causes. It is stronger than classic one because of its capacity of processing the fuzzy knowledge. It is a matter of evaluating the degree of this pattern matching between a fuzzy cause and a fuzzy fact (the fact filters more or less the cause). In order to put a fact in touch with a cause we can build up a recursive algorithm, comparing the two associated trees step by step. It follows beyond doubt that the knowledge pattern matching is the basic operation.

Generally speaking, it is a matter of pattern-matching between a model P and a data D to which we attach μ_P respectively π_D ($\mu_P(u)$ represents the degree of the compatibility between the value u and the meaning of P , while $\pi_D(u)$ represents the possibility degree that the value u represents the value of the attribute which describes an object modelled through the data D). The degree of compatibility has the membership function $\mu_{P|D}$ defined through the extension principle. Though it translates relevant information related to the degree of the pattern matching between P and D , it is difficult to use $\mu_{P|D}$. We prefer two scalar measures in order to evaluate the compatibility: $\Pi(P, D)$ and $N(P, D)$. Let us consider the most simple case $((*f, *m \rightarrow *c), *c')$, where $*m$ is the cause of the rule $*m \rightarrow *c$, $*f$ is the fact, each of them being expressed by fuzzy sets. In order to deduce the conclusion $*c'$, it is to be known if the fact is compatible with the rule condition. We can try to calculate generalized modus ponens (GMP) for the inference conclusion $*c'$, else the calculating process stops. The theory of possibilities provides two measures, which are very useful to evaluate the compatibility of the fuzzy sets [12]:

$$\Pi(*m, *f) = \sup_u \min(\mu_{*m}(u), \mu_{*f}(u))$$

$$N(*m, *f) = 1 - \Pi(\neg *m, *f) = \inf_u \max(1 - \mu_{*m}(u), \mu_{*f}(u))$$

Generally, it is much complicated to calculate N than Π . A simple calculating method is based on the separation of the complementary of $*m$. Analysing the form of $\neg *m$ we find that this can be divided into two fuzzy sets L_s and L_d . The fuzzy set $L_s = (-\infty, g_m - \varphi_m, -\infty, \varphi_m)$ is always on the left of $*m$ while $L_d = (d_n + \delta_m, \infty, \delta_m, \infty)$ is always on the right of $*m$, and $L_s \cap L_d = \emptyset$. It follows that $\neg *m = \max(L_s, L_d)$. We obtain: $N(*m, *f) = 1 - \Pi(\neg *m, *f) = 1 - \Pi(\max(L_s, L_d), *f) = 1 - \max(\Pi(L_s, *f), \Pi(L_d, *f))$. Having Π and N, defined and calculated this way, we distinguish several classes of decreasing compatibility. Even if the measure Π and N correctly estimates the degree of compatibility between the fuzzy constants, these measures can not be used directly to infer the conclusions in the case of an inference engine based on GMP. If the measures Π and N satisfy some thresholds, then the pattern matching is successful. To calculate GMP we need the parameters θ and K, in the following form: $\theta = (*m, *f) = \max(\mu_{*f}(g_m - \gamma_m), \mu_{*f}(d_m - \varphi_m))$, $K = (*m, *f) = \min(\mu_{*m}(g_f), \mu_{*m}(d_f))$.

At the end of the fuzzy condition/fact pattern-matching stage for the cause C and the fact F, if the degrees of the pattern matching satisfy the chosen thresholds and if there is a consistent substitution σ , then pattern matching is successful. The substitution σ is a particular case when the variables in the causes can be associated to some fuzzy constants present in the facts. The instance $\sigma \cdot C$ obtained through the application of the fuzzy substitution σ to the condition C is not totally equal with F, i.e. the expression $F = \sigma \cdot C$ is not always true then σ is fuzzy. We can take into account the problem of finding the proper thresholds of the measures Π and N in order to determine the facts that do not filter the causes at all. The choice is not made at random, as between the two parameters of GMP it must be a tight link. Because of all these remarks and in order to correctly solve the problem, there are the links between Π , N, θ , K. As already shown GMP verifies the following important proposition:

Proposition. i) $K = 0 \Leftrightarrow \theta = 1$; $K > 0 \Leftrightarrow \theta < 1$; ii) The conclusion $*c'$ inferred through GMP is uncertain: $(\mu_{*c'} = 1) \Leftrightarrow \theta = 1$; iii) $N(*m, *f) > 0 \Leftrightarrow \theta < 1$.

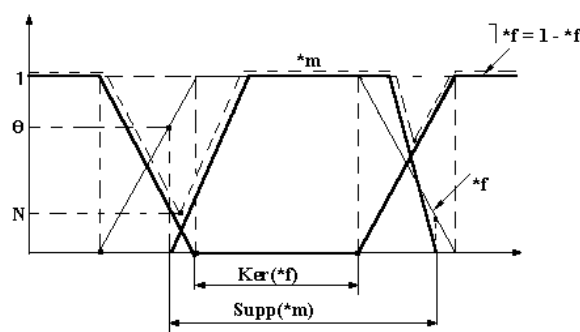


Figure 5. Graphical Relation θ -N

Linking of the fuzzy variables. The fuzzy condition/fact pattern matching constitutes the first stage in the running of the inference engine, which takes into account the imprecision. After this stage, it results a lot of instantiations of the causes. Each instantiation of reason will be associated to a fuzzy substitution and to the four parameters Π , N, θ , K. The second stage is represented by the linking of the variables and it aims at determining the consistent instantiations at the full conditions level of the rules.

Fuzzy unification. The fuzzy unification aims at verifying the consistence of the fuzzy substitutions where the variables can be associated to fuzzy sets. Let's consider a rule $(*D *H ?x) (B ?x) \rightarrow (act(C *E ?x))$. In the antecedent of the rule there are two causes $C_1 = (*D *H ?x)$ and $C_2 = (B ?x)$. We suppose the facts to be specified: $F_1 = (*d_1 *h_1 *w)$ and $F_2 = (B *r)$. For some chosen fuzzy sets, the fuzzy constant $*d_1$ filters $*D$ and $*h_1$ filters $*H$. The only result for the pattern-matching between C_2 and the fact F_2 is the fuzzy substitution $\sigma = (*r/?x)$ and the pattern-matching parameters. If all the parameters satisfy the designed thresholds, then the facts totally unify with the causes. After the fuzzy condition/fact pattern-matching, we obtained two fuzzy substitutions: $\sigma = \{ *w/?x \}$ and $\sigma = \{ *r/?x \}$ where $*w$ and $*r$ are fuzzy sets.

The fuzzy unification contains on the one hand the evaluation of the consistence degree of the fuzzy substitutions on a certain norm and on the other hand, the fuzzy substitutions composition. Let us consider a rule R with k conditions, under the form $COND(R) = (C_1, \dots, C_k)$. After the fuzzy condition/fact pattern-matching, if each condition C_i , filters a fact F_i , then there is a fuzzy substitution σ_i so that $F_i = \sigma_i \cdot C_i$ and the four parameters $\Pi_i, N_i, \theta_i, K_i$. Let us consider a variable $?v$ within the rule; we suppose to appear n times in the conditional part of the rule. $?v_i$ is used for the representation of i^{th} of the variable $?v$. In this case, all the occurrences of the variable $?v$ within the global condition of the rule can be represented through the following list: $\{?v_1, ?v_2, \dots, ?v_n\}$. Each $?v_i$ will be certainly associated with a term t_i , which can be an atomic or a fuzzy constant, denoted: $\{t_1/?v_1, t_2/?v_2, \dots, t_n/?v_n\}$. All the various variables present in a rule are independent. Each variable can occur in a rule several times. Each occurrence of the variable is independent of the other occurrences. Nearly all expert systems preserve this hypothesis. The fuzzy unification consists of: *i)*

The consistence verification of the element in list $\{t_1/?v_1, t_2/?v_2, \dots, t_n/?v_n\} \rightarrow \{t_p/?v_p\}$ as against a certain norm; *ii)* The composition of the fuzzy substitutions. In order to eliminate any confusion, $?v_p$ is used to represent the variable $?v$ after the fuzzy unification. Finally, the fuzzy unification can be represented through the following expression: $\{t_1/?v_1, t_2/?v_2, \dots, t_n/?v_n\} \{t_p/?v_p\}$ where t_p is going to be calculated [4]. Let us consider a simple case. If t_i is a fuzzy set, i.e. $t_i = *t(i)$, ($i=1,2$), then the symbolic or numerical comparison is no longer sufficient to evaluate the consistence between $*t(1)$ and $*t(2)$. When $?v_1$ and $?v_2$ are independent, the Cartesian product $*t(1) \times *t(2)$ is defined by $*t(1) \times *t(2) = \{(x_1, x_2), \mu_{*t(1) \times *t(2)}(x_1, x_2) / x_1 \in X_1, x_2 \in X_2, X_1, X_2 \subset R\}$, $\mu_{*t(1) \times *t(2)}(x_1, x_2) = \min(\mu_{*t(1)}(x_1), \mu_{*t(2)}(x_2))$.

The compatibility between $*t(1)$ and $*t(2)$ can only be clarified through a reasonable explanation of the criterion relative to which compatibility is judged. In the classic situation, the criterion is made up by the equality relation. It is quite natural to introduce appropriate criteria for fuzzy unification in both stages: to check the consistence and to make up the fuzzy substitutions. These criteria should be more general; the equality relation can be defined by a binary fuzzy relation R . Making up the fuzzy set $*t(1)$ and the relation R , we obtain $\mu_{R \circ *t(1)}(x_2)$, defined by:

$$\mu_{R \circ *t(1)}(x_2) = \sup_u \min(\mu_R(x_1, x_2), \mu_{*t(1)}(x_1))$$

Since we know both relation R and Cartesian product $(t(1) \times *t(2))$, we can use measures Π and N to estimate the consistence of fuzzy sets $*t(1)$ and $*t(2)$ relative to R . Thus, we have:

$$\begin{aligned} \Pi(R, *t(1) \times *t(2)) &= \sup_{x_1, x_2} \min(\mu_R(x_1, x_2), \mu_{*t(1)}(x_1), \mu_{*t(2)}(x_2)) \\ N(R, *t(1) \times *t(2)) &= \inf_{x_1, x_2} \max(\mu_R(x_1, x_2), 1 - \mu_{*t(1)}(x_1), 1 - \mu_{*t(2)}(x_2)) \end{aligned}$$

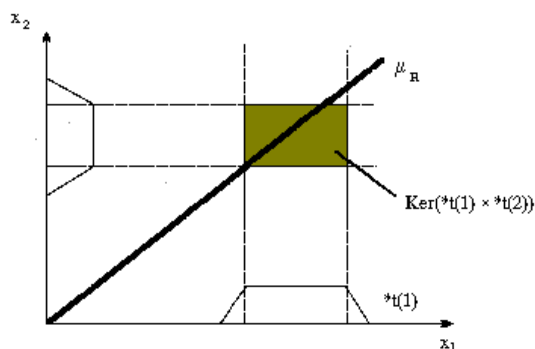


Figure 6. The Significance of R

It is interesting to note that the fuzzy binary relation R , can be interpreted in various ways. The equality relation may be regarded as a particular case of relation R . A last important problem is the parameters propagation.

4. Conclusions

The use of temporal aspects refers to the design of those tools to solve the equation $\mathbf{time} = \text{complexity} \oplus \text{real time} \oplus \text{temporal reasoning}$, which is employed in order to integrate time into a process control application. This equation is formally found on the inference engine algorithm, able to make full use of the specific knowledge to the process control. The symbolic aggregation meta-operator \oplus can be instantiated into different classes of specific operators, depending on the goal pursued by the control model. We assume that the process operates like finite no deterministic state machine, while the expert system will operate like a finite deterministic state machine. The closed-loop control expert system can be modelled like a no deterministic state machine, whose outputs are the process outputs. A major obstacle to the widespread use of (possibilistic) expert systems in real-time domains is the non-predictability of rule execution time. A widely used algorithm for real-time production systems is the Rete algorithm. To achieve a fast reasoning the number of fuzzy set operations must be reduced. For this, we use a fuzzy compiled structure of knowledge in ICS, like Rete, because it is required for real-time responses and a fuzzy inference engine.

Among all CI tools, the artificial neural network is the most widely accepted tool for economists and finance people, even though its history is much shorter than that of fuzzy logic as far as the applications to economics and finance are concerned. The reason why economists can embrace ANNs without any difficulties is due to the fact that an ANN can be regarded as a generalization of the already household time series model *ARMA* (autoregressive moving average). The last important pillar of computational intelligence is so-called *evolutionary computation* (EC). EC uses *nature* as an inspiration. While it also has a long history of utilization in economics and finance, it is, relatively speaking, a new kid in the block, as compared with neural networks, and even more so as compared to fuzzy logic.

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Risk of Competition in Crisis Conditions

Marcela-Cornelia DANU

danucornelia@yahoo.com

University of Bacău

Abstract

For many types of risk affecting the economic existence of firms, risk of competition is among the most important, both in terms of the gravity and intensity and the spread in space and time. In the context of the global economic crisis, - economical, financial, social, image problems etc. encountered by the economic entities are responded through the engage of the companies in the competitive game using various strategic alternatives. The competitive game involves: understanding the nature of the competitive strategy, the demarcation of their playing field, the competition analysis and the competitive decision commitment. Implicit, the new conditions created field of manifestation of the anticompetitive behavior on the various world markets, increasing the inherent role of the decision makers in the competition policy.

Keywords: economic crisis, risk of competition, competitive game, anti-competitive behavior

JEL Code: L21, L25, L40, M11, M21

1. Introduction

The dynamics of the phenomena and economic, social, political, and institutional processes and the transformations that society has suffered from the trigger of the financial and economic global crisis and to date, have reshaped the position and the role of the competition in restoring of the balance and improving the business climate. The effects of the economic crisis, itself a macroeconomic risk, are felt in all the structures and the economic variables, with different intensities, but the consumer is the receiver of the most painful and perennial replicas of the changes in society. That is why, I plead to minimize the risks which are the subject to the consumer - financial, physical, psychosocial, etc., with the proper functioning of the competitive environment and, further, the correlations and the interdependencies of the economic system.

2. Short considerations on the evolution of the global economic crisis

After a period of deepening credit crisis in U.S., financial crisis, which started in September 2008, turned into a economic world crisis [<http://web.worldbank.org/WBSITE/EXTERNAL>, (2009)]. Economic activity fell sharply at the end of the last quarter of 2008 and the first quarter of 2009, both in the developed countries and the developing. In developing economies, the impact of the economic condition in the social was and is more pronounced, mainly by increasing of the unemployment, poverty, deteriorating living conditions.

The financial crisis has resulted in the diminishing rate of investment, loss of wealth, more general uncertainty. Decreased investment worldwide has resulted the declining production, trade and GDP over the last quarter of 2008 but the first quarter of 2009. The largest decreases

in the economic activity occurred in the countries specialized in the production of durable goods and equipment but also in the countries with economic and social issues prior to the trigger of the crisis.

Amid of increased vulnerability to global business environment, decreased the material prices raw oil by 60% and food products by 35%. Decreased the oil and the food prices has mitigated the impact on poverty reduction and helped reduce the pressure on current account of the oil importing developing countries.

Even if the governments have adopted policies to mitigate the effects of the crisis, they were not always and in all cases focusing on the specific situations, therefore, have not achieved their objectives. The costs of the government interventions have contributed to increased the budgetary imbalances to cca.3% of GDP in the developed countries and up to 4.4% of GDP in the development. Increasing the indebtedness in the developing countries will have long-term effects on the growth of the credit cost in the developing countries. Therefore, the decrease in the economic activity in conjunction with reducing the flow of capital to the low-and medium-developed countries will, inherently, the financial statements and, in general, economic and social, difficult for the populations of those countries. The current account deficit and deteriorating fiscal position is of concern in the some countries in Europe and Central Asia in which the specific problems of the economic crisis have been combined with the earlier crisis. Such as the experts of the World Bank assessed, the solution of minimizing the deficit or balance the budget is to reduce the domestic demand and the currency exchange rate. Even if the GDP of the developed countries of the world fell in the first quarter of 2009, are clear signals to resume a positive growth, such as the stock market recovery, the moderate growth in the exports in some countries, even amid increased the consumer demand for more flexibility fiscal measures.

3. The involvement of economic entities in the competitive game, in crisis conditions

In this global context marked by economic recession and changes in the substance at the economical, social, political level systems, the competitive environment is the component that validates the viability and the power entities to meet the changes and present challenges but especially the future challenges. In general, training, participating of the companies in the competitive play involves: understanding the nature of the competitive strategy, the demarcation of their playing field, competition analysis and, finally, the decision of undertaking competition [Porter (2001)].

To know and understand the nature of the competitive strategy, the firms need to anticipate the impact of their decisions on the competitors. Management and marketing of the firm depend on the reaction of the competitors - the main feature of the competition being the interdependence of the firms in the market. In the situation in which, in crisis conditions, the company decided to reduce the price of a product to stimulate the sales and increase its part of the market, the competition can answer through the price general reduction on all its products with a higher percentage. In this case, the estimated effect can not be attained because the consumers are not receptive to reduce the price of that product once the strategic alternatives become widespread. The company efforts have focused on other variables of the marketing mix to counteract the competition stronger and more aggressive. The trends of increasing and refining of the methods of counteract competition are evident regardless of the business domain of the companies, however, the size, their dynamics follow, in general, the individual needs hierarchy: the firms that meet the basic needs are less affected from the reduction of the individual income levels and, in general, of entire suite of consequences derived from the manifestation of crisis.

Regardless of size, every company develops, explicitly or implicitly, on the target market, her own competitive strategy, which consisted in offensive or defensive campaigns in order to create her advantageous position on the reference market. The strategic planning of competitive type is, in the current global context, imperative. Must pursued the answers to questions such as: "Where is the most powerful combat: on the current market or on the future market?"; "What strategic maneuvers will make the competitors and who are the properly equipped to respond to them?"; " How can the company position themselves his products to be competitive long term?", etc.. To adopt a competitive strategy must be made the market analysis, taking into account the supply and demand ratio. Excepting the monopoly, in which the demand is inelastic, in other cases, the companies should consider the macro-environmental variables - demographic, economic, technological, cultural, legislative, political, natural and also the marketing activities of competitors. The competition study focuses on the strategic options of the players and also on the impact which they have on the profits of the competitors and on the market structure.

“Wheel of the competitive strategy”, as a mix of objectives and means to achieve them, should be set having regard to the premises and the forms of the economic crisis. If, in general, through the objectives of competition fight are: the profit, the market share, the sales, the innovation, the social responsibility, etc., clearly worded, precisely measured, logical ranked, in crisis conditions - the sales, the survival of business, have first place. However, the means of competitive struggle (considered the spokes of the wheel), in all the internal departments of the firm - the target markets, marketing, sales, distribution, technology, qualified labor, R & D, finance, product mix, - not alter their role; what is changed is the position held by one or other of the wheel spokes to ensure functionality.

Beyond the plastic expression of economic reality, remains the message that every component must be managed optimally to ensure optimal functionality of the whole. In the conditions of the economic crisis, the spokes of the wheel become vulnerable; the target markets consist of segments of the market reassess their priorities, the propensity for consumption falls; the activities of marketing operationalized to the level firm have restrictive mission of adapting to the new conditions, marked by shortages; sales decline, distribution is reconfigured providing more facilities for sale, etc.

Starting from the assertion that competition, like any economic phenomenon or process has its own life cycle, closely linked to developments in the reference market the product / the game / the company, etc., it can be said that in crisis conditions, the phases of this life cycle occurs as follows:

- ✚ the embryonic stage, in which the business features are “empty arena, clumsiness, temptation, hope, suspicious distributors”, is apparently non-existent, because situation of purchase of the consumer, the distrust in the business stability, the prudence manifested in the decision-making purchase and consumption, in fact, even if the product is in launch phase (in the more risky launch crisis) will have to met the current competitors, owners who meet the same consumer need with existing products, substitutes;
- ✚ if, in a relatively normal development, the growth phase of competition is manifested in the conditions in which the product is already validated by the consumer, being supported by an adequate promotion, pushing the rapid growth in sales, the profit, development of competition to the level of the product distribution - in condition of crisis, competition is higher and moves its center of gravity on the consumer income;
- ✚ if, in general, in the maturity stage, competition is strong, the number of customers - large, the orientation towards the product differentiation, recovery of the capital and management, the distributors becoming, in time, careful, the prices falling, culminating in withdrawing of many to the business and the appearance of the signs of recession in industry - in conditions of economic crisis, the strategic alternatives and the tactics which are operationalized in the growth phase, are continued in intensive or aggressive variant.

✚ in the declining stage of the competition, some firms remain in business, the old product is the subject of the research-development, the promotional efforts are weak, etc..., is the phase that best fits to the specific manifestations of economic recession.

Once understood the nature of competitive strategy, to achieve the demarcation of the competitive field of the firms, must be competitors defined at the level of: need, consumer preferences, product, brand.

Regarding the competition to the level of the need to satisfy and between product categories (at the level of preferences), the firms believe that they are in competition with all the bidders for products that satisfy the same need. What has changed in the new context of economic recession is the consumer choice, limited to the first levels of the hierarchy of needs, primarily to meet basic needs. So the competition is higher not only to the tenderers of substitutes and /or identical but primarily to the need to satisfy.

In case of competition between products, the company considers its competitors all the companies offering the same product category (which can substitute for consumption or use). The intensity of competition in this competitive environment depends on factors such as: the number of bidders and the degree of product differentiation, the barriers to entry, movement in and out of the industry, the cost structure, the degree of vertical integration and the globalization. In any industry, if the number of bidders is higher, the competition is intense and the products or services are less differentiated in terms of quality. The main differentiating factor of the supply is the price. If before the onset of economic crisis, the industry was characterized by strong competition, once with the installation of the phenomena recession specific, the price variable has more attributes as weapon competitive.

In conditions of the predictable trend of the economic life and the relative stability of the business environment, on base the freedom of entry in an industry with a high profits, increased the supply new firms, but reduced the profits in the industry. In the current conditions, marked by the increased of the competition within the industry, the barriers to entry in sector (high capital investment, creating a positive real images, difficulties in creating a channel of distribution, problems of supply, etc.) are much many not only the cause of the force competition but especially the cause of business conjuncture; on the other hand, are less attempts to input of the new companies in sector, once the already existing firms have major problems.

In terms of exit barriers (difficulties in selling the assets, obligations to employees and creditors, legal restrictions, lack of profitable opportunities in other industries, the psychological barriers of shareholders, etc.), as they stand, even if the profit is less attractive in many industries, the global recession, affecting all structures and segments of activity (but in different measures) is the unlikely the wish of the firms to leave free, volunteer this industry. In the present situation, in which the companies with tradition and world famous companies in a particular industry - cars, insurance, etc..., recorded heavy losses, could be a viable solution, lateral diversification in areas related to the basic, with condition as those areas (industries) adapt quickly to the present needs of a consumer in recession.

The cost structure is another explanatory variable of the intensity of the competition in a branch of industry; the production costs, distribution and marketing differs from one segment to another but minimizing their level is objective pursued by all firms, especially since the in conditions of crisis the motivations to reduce costs derive from the poor state of the economy. The activities with high production costs are less attractive and reduce the production costs can provide great competitive advantage over other companies in the sector. In crisis conditions, cost reduction argument is not only competitive advantage but, first, the possibility of survival. Regarding the potential of globalization, each industry presents specific situations but, beyond the activities developed only locally, most can be included in the global circuit in different

sequences of activity, subject of the globalisation economic life. According to M. Porter, in a global industry, the competitive advantages of cost, quality and technology are achieved with great difficulty and only the companies able to them capitalize will be successful in the market. Given the strategic options of transnational companies, the economic reality has shown that standardization strategy (standardization adapted) is what valorize the strengths of economy of scale and creates to companies significant cost advantages. They are particularly desired at this stage in which the financial component seems to prevail on other.

Competition between brands is disputed between all companies providing to the segments - target, the products or services, identical or insignificant differentiated, the differentiation is accomplished by the brand image; in crisis situations, use of media and techniques necessary to realize the differentiation between competitors may be expensive, therefore is applied with caution.

In conclusion, the delimitation of the field of business competition is arbitrary, depending on the company's objectives and the decision context. Even if the specific conditions of business environment in crisis are difficult, the short-term business objectives can be - increase secondary demand side, market penetration, etc., in conjunction with the narrow definition of the competitive environment, such as the interbrand competition; once leaving the crisis and falling on the trend of refreshing, the economy make possible and create the conditions to achieve the medium or the long term objectives - the integration, the diversification, etc., in which case, it is possible to define the broader the competitive field, such as the competition between products or between categories of product.

Competition analysis aims: identifying the strategies of competitors, their objectives, specific forces and weaknesses, identifying the competitive behavior of the competitors.

Identifying the strategies of competitors suppose the analysis of structural factors of industry and the competition within it - the barriers of entry and movement, the product differentiation, the cost structure, etc.. The informational support well-defined and with sufficiently detailed data should include: supply, production, growth-development, finance, human resources, technology, marketing - product quality, consumer services, pricing, distribution channels, communication strategy, sales forces, etc..

To developing competitive strategy, must be known the objectives of the each major competitor. Knowledge the mix of company objectives permits anticipating its response to the attacks and the strategic maneuvers of competition. For example, in these days of recession, if the company aims to increase the sales, will react more strongly to the sales promotion techniques operationalized from the main competitor, than to improve its relations with the internal public. Analysis of the competition objectives must taken into account: the size of competitors, the market segments that it operates, the management structure - the degree of centralization and the organization - the degree of specialization, the expansion plans, etc.. Also, must be considered the competitors objectives, on the medium and long term, even if, in the conditions of the economic crisis, they are less predictable and have less chance to be operational.

Other significant elements of the analysis are: gathering and processing information on the strengths and weaknesses of the competitors, referring to: sales, market share, profit rate, investment efficiency, capacity utilization, plan new investments, cash-flow plan (cash flow), the level of reminder and level of the consumer preferences. An important role, in general, particularly at this stage, has the secondary data and the marketing research on the suppliers, on the distributors and on the customers of the competitors, even if the research budget was reviewed following a risky financial situation. Starting from the factors considered successful in economic practice – image of company, product quality, service quality, quality sales staff, the price -, the analysis of the competitive environment will focus in the present context,

particularly on the weaknesses of competitors, subsequent, taking decision to attack in the area or areas where the competition show the weakness. For developing and implementing programs of action consistent with the evolution of economic phenomena and the concrete situation of company, will be use the technique of benchmarking.

Regarding competitive behavior of the competitors, at this stage of analysis, the firm must anticipate how competitors will react to an attack on a front - for example, launch a new product, reduction of price, aggressive promotion, intensive distribution, etc.. In the context of the current business environment, competitors can not be relaxed or selective, but rather like "tiger" - reacting in force to any attack or the type unpredictable - counterattacking spontaneously, without any competitive strategy. The causes of such behavior may be: insecure consumers, weak sales, managerial incompetence, unfavorable global conjuncture.

Even if, for the companies participating in the competitive game is considered a risk, at the level of the business environment 'the competition in running' creates benefits for all the entities which operating in that market, primarily the consumers. Competitors of a sector grow the total demand, contributing to distribution of the market development costs, the technologies and the products, differentiating the products, prices, distribution and promotion. Beyond the tactical alternatives that is recourse to counter the actions of the competitors, quickly and with minimum cost, the attention must always focused on the consumer and the dynamic of its options; on the long term, the competition wars may be destructive, regardless of the size, the strength and the reputation company. Based on confirmation given by the economic reality, over the time, and the specific situation of the present, marked by the recession, the firms who are oriented to consumer win before the firms who are oriented to competition. Best choice is, according to the vision of most experts and practitioners, the combination of the orientation towards the consumer and to competition, ensuring the fundamental objectives of the exponents of supply and demand.

In taking the commitment decision competitive, firms have aim to: the evaluation the competitive position of the company and choose the opponents, setting competitive goals, deciding on the competitive strategies. The domination criterion, used in evaluation of the competitive position on the market, highlights the position of individual dominance or the joint dominance (with the main competitor) or the non-domination. Whatever will be the strategic alternative of domination (thru cost, thru differentiation, thru concentration), the dynamic of the economic phenomena, and, thus, the requirements and choices of the consumer reflects the fact that businesses who want engaging in the competitive struggle with minimal risks (in terms of severity and extension in space and time) must select one of the variants and not combinations or intermediate variants. Of the competition objectives that can be established by the firm, according to market position at this stage of the economic recession, may be viable: stimulating the secondary demand (specific) by maintaining market share (thru the customer loyalty) and increasing the market share by attracting new consumers, especially those dissatisfied with the price-quality ratio, sensitive at price variable. Finally, the company will decide the competitive engagement against one or more competitors by appealing to a mix of competitive strategies.

4. Management of the risk of competition at macroeconomic level

As was predictable, onset and conduct of the economic crisis was reflected in the manifestation of anti-competitive behavior on the different markets of the world [OECD Global Forum on Competition, Eighth Meeting, 19-20 February 2009, *Le Rôle des autorités de la concurrence dans la gestion des crises économiques*, p.1-11]. In this difficult situation, the strategic alliances and monopolies are in advantage; the firms with low market shares may grow, in this period, thru the expense limitation, the restriction or shift of the activities at the large companies. On the other hand, the firms holding a monopoly position on certain markets, have the opportunity to operate price rises, restricting the supply side, etc., thereby, exploiting the

difficult situation of the economy and consumers. As a result, in the current period, the role of public authorities, their intervention in terms of competition policy should materialize in:

- ✚ correct application of specific regulations in this area;
- ✚ the application, with some flexibility, the rules relating to mergers, crisis cartels or agreements to export;
- ✚ the defense of the weakened competition caused mergers and state aid;
- ✚ price control measures, etc..

At the EU level, policy makers in competition are considering the common legislation merger enforcement regarding, mergers, state aid and therefore the economic conditions facing Europe since the second half of 2008, the rescue and restructuring proposed and implemented. Practical actions taken by the European Commission have resulted, in 2008, to adopting the severe measures against cartels, amending the 347 companies with 2 271 million in total, seven cases of cartels; in the case of car's glass cartel, the Commission applied the highest fine imposed for a cartel to date, 1 383 million. The 18 cartels monitored in terms of market size involved, duration and size cartels overcharge in 2005-2007, caused damage between 4 and 11 billion euros of which most are borne directly by the consumer.

The abuse of dominant position held by Microsoft was punished again in 2008 because of "not respect to provide complete and accurate interoperability information on reasonable and non-discriminatory", the penalty amounting to 899 million euros. The abuse of dominance was observed with Intel and E.ON. In 2006, the European Commission launched investigations of the German electricity market, reaching the preliminary conclusion that E. ON may have abused its dominant position as: the wholesaler market electric power thru strategic reducing capacity production of some of its electric power wholesale market in order to forcing price increase, E. ON would be designed and implemented a strategy to discourage third parties to invest in electricity production and in position of operator transmission system, has fostered its own production on the secondary market for electricity balancing.

Another coordinated the competition - the grant special or exclusive rights to certain undertakings, being in the focus of European policy makers, highlighting cases such as the granting by the Greek state to the Public Power Corporation company access to almost all lignite mines exploited in Greece to obtain electricity.

As regards state aid, in the current economic and financial crisis, the European Commission has provided guidance and has taken steps which permit the aid to 'remedy a serious disturbance in the economy of a Member State', with the end of 2010 deadline (with possibility of extension depending on the development of the crisis). The main beneficiary is the financial sector with the condition 'the recapitalization of financial institutions in the current financial crisis: limiting the aid to the minimum necessary and safeguards against undue distortions of competition'. Although in the past 25 years, state aid has dropped from over 2% in the '80s, at approx. 0.5% in 2007, economic and financial crisis led to its increasing for rescue and restructuring. Among the deviations from the laws related to this area, significant is the case of Romania which, motivating industrial restructuring, to grant the illegal cca.27 million for privatization of Automobile Craiova in terms of ensuring a certain level of production and the number of seats work, accepting instead a lower sales price.

Beyond the situations illustrating failures of the regulatory environment and overall business environment of a country, minimizing the chances of business performance and customer satisfaction, the role competition policy is more than evident [[www.wto.org/Rapportur sur le commerce mondial/Les engagements en matière de politique commerciale et les mesures contingentes](http://www.wto.org/Rapportur%20sur%20le%20commerce%20mondial/Les%20engagements%20en%20matiere%20de%20politique%20commerciale%20et%20les%20mesures%20contingentes)]:

- ✚ the market mechanisms and, consequently, competition, orients the production towards most effective entities;

- ✚ the economic arrangements, the mergers, may increase the prices by 20-30% causing disadvantages to the consumers;
- ✚ developing countries must implement healthy policies in competition domain, to minimize possibility of them put in disadvantage by the developed countries and to increase their bargaining power in international economic relations;
- ✚ annual cost of operationalizing the policy of competition is lower than annual loss of efficiency due to a single cartel (Baker's opinion, the example USA);
- ✚ competition policy creates the positive externalities transnational (if an authority prohibits a merger, etc..), protecting the competition, the benefit being for all customers, including foreign ones;
- ✚ the competition influences business efficiency, changing the incentive for the innovation incentive by acting on the motivation to manage the companies effectively;
- ✚ the functioning of market mechanisms and devolution the some activity sectors, allows rapid improvement of the productivity of production factors in those areas;
- ✚ on the context of a viable competitive environment in which the domestic competition intensely manifests, increases the country's performance in export activities and, generally, in all activities established with the foreign;
- ✚ between competition and efficiency is a positive relationship, competition leading to the efficiency, for all entities involved.

5. Conclusions

Although perceived by companies as a risk, competition is necessary and beneficial to the business environment, enterprise and consumer. Moreover, in the triad: enterprise - the consumer - environment, successful management of the competitive environment to the macroeconomic level provides conditions of better management of relations with the natural environment. The forms of struggle competition are different from one firm to another, from one national environment to another, from one period to another; the motivations, the reasons for the engagement in struggle are, also competitiveness, largely modeled on the specific situations. In conditions of economic recession, the difficulty of ensuring the survival and continuity of the business on the one hand, consumer satisfaction, on the other but related, leads to making-decision regarding the strategic alternatives, proving, in many cases, an anticompetitive behavior, decreasing the quality of business and consumer interests. The mission of the macro-decision makers is, in this case, imperative - the use of legislative device. The functionality of competitive mechanisms is necessary regardless of the specific stage of economic cycle but is even more significant in conditions of economic crisis and in after-crisis period.

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Human Error and Organizational Management

Alexandrina DEACONU

alex.deaconu@yahoo.com

Academy of Economic Study Bucharest

Lavinia RAȘCĂ

lavinia@asebuss.ro

EXEC-Edu ASEBUSS Bucharest

Abstract

The concern for performance is a topic that raises interest in the business environment but also in other areas that – even if they seem distant from this world – are aware of, interested in or conditioned by the economy development. As individual performance is very much influenced by the human resource, we chose to analyze in this paper the mechanisms that generate – consciously or not –human error nowadays. Moreover, the extremely tense Romanian context, where failure is rather a rule than an exception, made us investigate the phenomenon of generating a human error and the ways to diminish its effects.

Key words: human error, performance, management, information processing, organizational culture.

JEL Code: M12

1. Introduction

The knowledge we use nowadays to analyze human error derives, almost entirely, from the organizations that carry out risk operations and threaten with the occurrence of catastrophic events. In this regard, the most generous fields are nuclear energy, chemistry and aviation. However, these are not the only ones.

The work of Alfie Kohn³⁷ has brought about shocking revelations regarding a new field in which human error has significant effects: *the medical field*. According to the information provided, more and more hospitalized patients die annually as a result of human errors. Even if figures can be contested on the account that death is rather caused by the gravity of the illness than by error, the phenomenon cannot be ignored, especially if we add to the already existent figures the cases when patients die outside the hospital. It is difficult to have a real image as long as the fear of blame and the reward granted to those who deny this reality make the organizations develop a culture of guilt.

For a good part of the XXth century, the main trend in many organizations, especially in the USA, was to associate human error with the environment, with its factors, with the activity, with the organizational design, leading even if to the denial of human involvement. Such a vision, however, is not realistic.

The opinion we sustain in this paper is that human error has roots in the processes based on memory. Thus, the same memory that helps man to adapt, have abstract reasoning, create, and draw conclusions, has a decisive role in processing information and in generating undesirable

³⁷ Kohn Alfie - Management mistake in Healthcare, Cambridge University Press, Cambridge, 2005.

or wrong behaviour. In other words, man is physiologically speaking predisposed to error. The contextual details and especially their connection with the human nature play also their part to the predisposition to error. Moreover, they increase the complexity of the phenomenon and can often diminish dangerously the aspects of human contribution that should be known and understood in order to implement successfully the requirements of error management.

We are greatly concerned with *managerial errors*. Thus can be explained our attempt to clarify the notion of human imperfection and human error, the generic model of information processing, the relation between the level of human performance and predisposition to errors – these being only some of the topics we deal with below.

2. Defining human error

The suspicion of a human error arises generally when different actions are made or omitted, which are later regarded as generating undesirable consequences (even if the undesirable consequences do not involve the occurrence of human error). The term *error* excludes the cases when there was an intention to affect negatively the result of the action. The errors are associated with the priority actions that we want to carry out and in this case two situations can exist:

- ✚ if, for any reason, the actions carried out do not come out as they were planned, any undesirable consequence derived from these actions will be due to an error emerged from an undesirable action.
- ✚ if the actions develop as they were planned but they did not attain their purpose, any undesirable effect prevented by these actions will be associated with errors emerged from desired but wrong actions.

In any of these situations the mutual element consists of the emergence of *undesirable* or *unfavourable events*. Human error includes also actions whose undesirable effects can emerge much later or can occur after the interpolation of more actions and/or people. Maybe we should also discuss the fact that there are actions that, even if they do not have undesirable effects, can lead to undesirable results and consequently these situations should be considered errors. Under these circumstances, we will accept the idea that what makes the difference between accidents and events with apparent negative visibility of the results is only *the chance*. Sabotage acts, even if they can lead to unfavourable consequences, are not actions that fail the expectancies, and that is why they do not represent human error. The same way, the breaking on purpose of the procedures, even if very important, is excluded from the definitions of human error when the actions followed the plan.

This distinction has revealed the need to understand the role of the error – and even the need to encourage the errors – in adaptation and creativity and in gaining knowledge and skills associated with the acquired knowledge.

The lack of consensus in reaching a satisfying definition of human error disturbs so much that can weaken the efforts to identify, control and eliminate the errors from various activity fields and from different activities. Thus can be explained the fact that certain authors abandoned completely the term of human error in favour of the term of *erroneous action*³⁸, which they consider *an action that does not succeed in producing the expected result, leading this way to an undesirable consequence*.

The problems regarding the definition of human error can be partially overcome if we reveal the models able to establish connections between the human psychological processes and the

³⁸ Hollnagel, Cognitive Reliability and Error Analysis Method (CREAM), [Elsevier Science](#) (1993)

manifestation of unfavourable effects in various activity fields. The attempts to modeling are not very numerous. Analyzing some of them allows us to retain certain useful aspects³⁹:

- ✚ Human error is connected to human imperfection, as it is influenced by the fundamental sensors, by the cognitive capacity and by the nervous characteristics of the individual;
- ✚ Human error is connected to context, that is to the situation variables;
- ✚ Human error is seen as an interaction between human imperfection and context. This is probably the most intuitive way the specialists explain the causality of human error.
- ✚ The description of the elements that determine human imperfection and the context components allows us to perceive the interactive complexity during their action.
- ✚ It is possible to appear barriers able to prevent the spread of the errors and to affect even the context.

There are multiple facets of human imperfection and they all can contribute to human error. For example, personality characteristics that show predispositions to confidence, diligence and perseverance could influence the possibility to make errors and the nature of their expression at the levels of performance based on rules and knowledge, especially under pressure. An extreme confidence can lead to risk-taking behaviour, this being a leading factor in many accidents.

Sleep alteration and tiredness are forms of human imperfection and their signs are often seen as contextual factors. In fact, in the marine and commercial industries, these conditions are often attributed to the rules of the regulation companies or agencies. The effects of tiredness can lead to the depreciation of the results of the performer perceived even as unskilled performer (can generate a degradation of the link of interconnected abilities, starting with decision making, reasoning, memory, reaction time and vigilance. NASA, which asks the pilots to report anonymously the problems they deal with, specified that almost 20% of the incidents registered in its Aviation Safety Reporting System are due to tiredness.

Another facet of human imperfection with serious implications for human error is the *situation of ignorance*, which depends upon the mental model of the immediate environment. As in the case of tiredness, the situation of *ignorance* represents an aspect of human imperfection that can hardly be influenced by the contextual factors.

Understanding the importance of different types of information from the environment leads to the need of *temporary ignorance*. Thus, many potential factors that are connected both to human imperfection and to context can influence the *contextual ignorance*. Knowledge or experience should allow a better general assessment of the situation, especially when there is a big volume of work and time constraints. Thus, it is possible to know all the elements of a problem, the relations between them and to identify some solutions difficult to imagine by those unfamiliar with the problem.

Last but not least, numerous affective factors can corrupt human information – can affect capacities and thus lead man to error. The personal crises can generate distractions and emotional information, can lead to replacing relevant information with *pieces of information*. The same way, the human tendency towards panic and fear reactions can deteriorate the activities of processing information, an extremely dangerous thing for human performance.

Human actions appear in different contexts and that is why a relevant description of them can be carried out only by taking into account the details of the context that accompanied and produced them). The way human predisposition to error is materialized in making certain errors and the expression of these possible errors are tightly connected to the context of the

³⁹ Dekker, The field guide to understanding error, London, 2005.

tasks. Although the concept of context is often considered objective, it is not easy to be defined, leading to a series of frequent alternative expressions, such as: *scenario*, *situation*, *situational context*, *contextual details*, *contextual characteristics*, *contextual functionalities*, *contextual factors* and *working context*.

The developers of advanced counting applications often specify the necessity to offer functionalities sensitive and receptive to various usage contexts. Taking into account a definition of the context in the field of information application (that involves a good knowledge of the circumstances), *context* is defined as any information that can be used to characterize the situation of a person, of a place, of an object, as well as the dynamic interaction between these entities.

Many quantitative approaches regarding the estimation of human errors use context related concepts. For example, some of these approaches use *factors that shape performance (PSFs-performance-shaping factors)* either to modify the estimated probability for an activity that was wrongly done, or as a basis for estimating human error. Any environmental, individual, organizational or task related factor, which can influence human performance, can be considered in general PSF. Thus, the factors that model performance seem related to the contextual factors. In any case, these approaches that highlight the probabilities in opposition with error possibilities, take over the side effects of PSFs on human performance to the detriment of the interactive effects. On the other side, tightly connected to the concept of context, there is the interactive complexity between contextual factors. A socio-technical method to quantify human error, known as STAHR, is maybe more compatible with the concept of context which it approaches through the perspective of performance-shaping factors. This method uses a hierarchical network of diagrams of influence to represent the effects of the direct influences on human errors, such as pressure and the education quality, but also the effects of the less direct influences, such as the organizational or political aspects, which project their influences through the more direct factors.

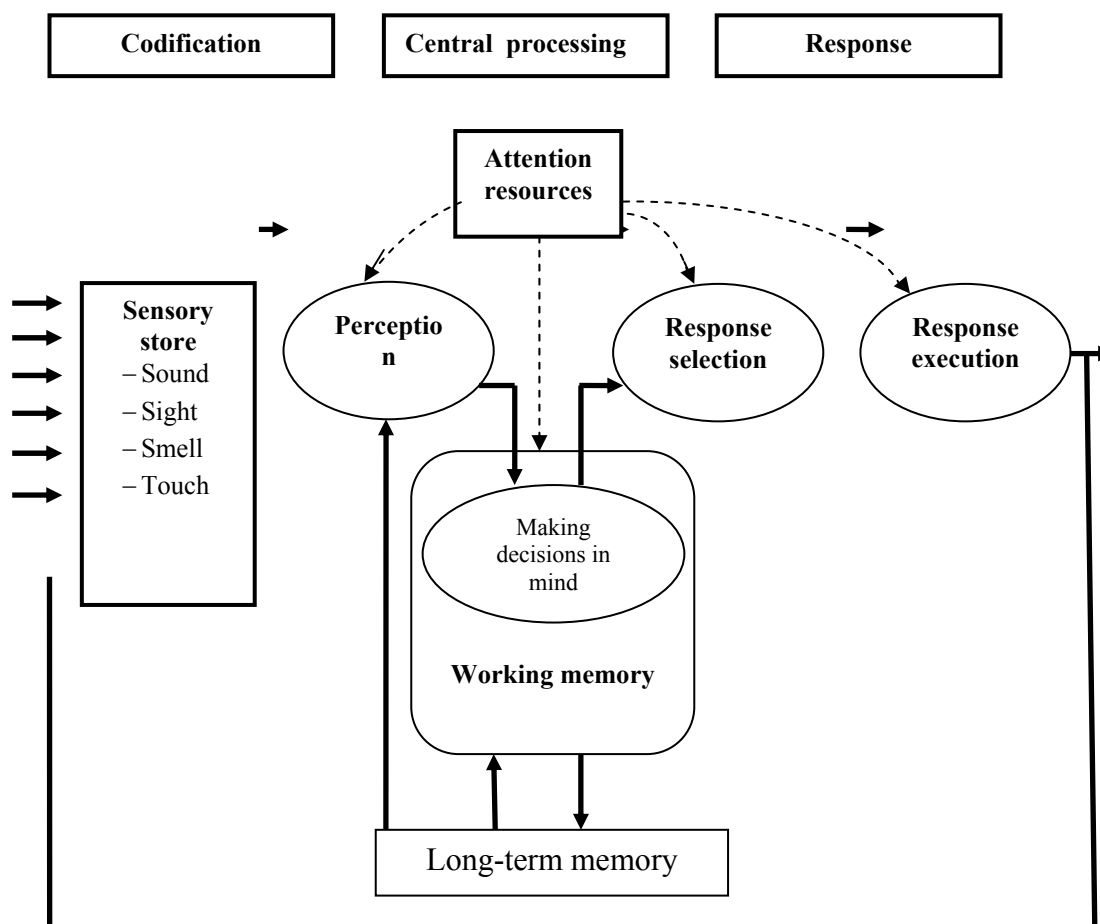
From the perspective of the human factor, error is the result of a discrepancy between the required tasks and the human physical and mental capacities. It is possible that this perspective allow only general anticipations of human error, which are based only on external characteristics.

The socio-technical perspectives regarding human error involve the potential impact on the policies of management and organizational culture, shaping the context where people act. These factors of contextual "importance" are capable of certain and considerable influences on the image of working places, operation procedures, training programmes and communication protocols and can generate overcharges of the tasks by imposing certain conflictual or changing performance goals that create thus a pressure on the individual.

3. Human information processing

Many human errors derive from the fundamental limitations existent in the sensory, cognitive and motor processes. These limitations are better understood if we take into account the *generic model of human information processing*, model that describes the existence of various resources of processing for managing the flow and the changes of information (Figure 1).

Figure 1. The generic model of human information processing



According to this model, the sensory information received by the various receptor cells of the body is registered in a system of sensory stores with a huge storage capacity. Despite this, that information is available only partially for further processing. Through the process of selective attention, subparts of this enormous collection of information are meant for a further processing, known as perception. Here, information can gain significance by comparison with the information from the long-term memory (LTM): it can become a response or can be later processed in a store of the short-term memory (working memory - WM). A great part of our conscious effort is dedicated to the activities connected to the working memory - such as visualization, planning, assessment, conceptualization and decision making - and an important part of this activity of the working memory depends upon the information that can be accessed from LTM. The recurrence of the information in WM makes possible its codification in LTM (If the information is not recurrent, it will disappear rapidly). WM has quite strict limits of capacity as regards the quantity of information that can be maintained active. The controversy is that within WM there are separate store systems for the accommodation of the visual information in an analogous spatial form or of the verbal information in an acoustic form, and there is an attention control system to coordinate these two. Eventually, the results of WM /LTM analysis can lead to a response (e.g. an action or a motor decision), or to reconsideration of the thoughts. It should be mentioned the fact that, even if this sequence of information processing is presented in Figure 1 as a flow from left to right, it can begin from anywhere.

Except for the system of sensory stores and LTM, the processing resources of this model could require attention. Often seen as a mental effort, attention is considered here as an internal source of finite and flexible energy under conscious control, whose intensity can be modulated

in time. Although attention can be distributed to the resources of information processing, fundamental attention limits restrain the capacities of these resources. In other words, there is only a limited quantity of information that can bear perceptual codification or WM analysis. Focusing attention on one of these resources will often disadvantage other resources.

Attention can also be concentrated almost exclusively on WM, as it often happens during problem solving or activity planning. The ability to divide attention, on which time division is based, is often noticed at people who learnt to shift rapidly their attention from one task to another. This ability can require knowledge of the temporal requests as well as knowledge regarding the tasks and the possibility that one or more of these become automatic and need thus less attention for their accomplishment. To justify why people succeed, in situations of equal time distribution, in using more efficiently their processing capacities, have been proposed numerous dichotomies within the information processing system: for example, that between visual and auditive modalities and that between early (perceptual) and late (central and the response) processing.

We have mentioned above the long-term memory. LTM has been described as an architecture distributed in parallel that is reconfigured permanently by selective activation and by the inhibition of the interconnected neuronal units. These processes of reconfiguration take place within some distinct modules responsible for various representations of the information, for mental images or for the sentence syntax. During the process of adaptation to new stimuli or thoughts, the complex interactions that appear between the neuronal units lead to generalizations and rules that are so important for human performance. As regards the forms of knowledge stored in LTM, usually we distinguish between the general knowledge we have about the world, called *semantic memory* and knowledge about events, called *episodic memory*.

When elements of the information - such as visual images, sounds and thoughts based on already existent knowledge - are processed in WM at the same time, they become interassociated in LTM. The recovery of this information from the LTM will depend upon the power of the individual elements as well as on the force of the association with other elements. It is assumed that a high frequency and the recent character of the activity contribute to creating more powerful memory connections (more stable), which undergo thus negative exponential alterations.

We can imagine that a great part of our basic knowledge is stored in *semantic networks* that are implemented through architecture distributed in parallel. Other systems of knowledge representation mentioned in the literature regarding the human factors are the mental schemes and models. *Schemes* represent usually organized knowledge regarding a concept or a theme. When the schemes reflect processes or systems for which there are relations between inputs and outputs that man can visualize mentally, and with which he can experiment, the schemes are often called *mental models*. The organization of knowledge in LTM as schemes or mental models is based also on semantic networks.

The restrictions associated with the LTM architecture can favour a better understanding of the human reliability and of the interaction with situational context that can produce errors. For example, the ability to remember both elements of the information and its patterns (e.g. associations) on the basis of partial matches of this information with the memory content is implicit in the case of parallel associative networks. As contexts where people operate often produce what we call *cognitive subspecification*, it is possible that, at a certain moment during information processing, its specification should be incomplete. This thing can be due to the limitations of conceptual processing, WM or LTM limitations or external restrictions. The

LTM organization can overcome these limitations by recovering some elements of the information that match with the input data. Thus it is possible that, by preliminary association with other elements of the information from LTM, a whole regulation should be activated. Unfortunately, this regulation cannot be adapted for particular situations.

Information processing is extremely important in the decision making. Human limitation in decision making can be caused by various reasons that involve, directly or indirectly, LTM. For example, if the information that man decides to select for WM activity is unclear or incomplete, he will need to interpret it intensively or to integrate it. In addition, any hypothesis generated by the decision maker and related to this will depend a lot on the information obtained from LTM. Moreover, sometimes it is necessary an assessment of the hypotheses taking into account further information. Although any hypothesis that has an appropriate basis can be useful for this action, any possible information that should be assessed in WM needs a recovery process from LTM. Furthermore, the effects associated to each action, the estimations of the probability of these effects and the negative and positive implications of these actions should be also taken from LTM.

4. Levels of human performance and predisposition to errors

The attentive observation of the performance and the prediction of various types of errors force us make the distinction between the three levels of performance:

- ✚ *Skills*: The activities carried out at this level are intensively repeated and require less conscious attention. They connect perception directly to action, avoiding WM and favouring highly automatic routines.
- ✚ *Rules*: In this case, are used rules that have been established in LTM on the basis of some past experience. When the stored rules are not efficient – as it often happens when new challenging problems emerge – man has to make plans that should involve hypothesis exploration and testing and has to permanently develop the results of these effort in a mental representation or model.
- ✚ *Knowledge*. At this level of performance there should be expected many requests for information processing, especially by WM, and the performance is vulnerable to the architectural restrictions of LTM, to the extent that WM is dependent upon LTM in problem solving.

In fact, many significant tasks that people carry out represent a mix of skills, rules and knowledge. Although performance at the level based on skills has as effect a considerable economy of cognitive effort, diminishing the attention resources involves a risk.

Many errors produced at the rule-based level involve an inadequate match either of the external suggestions or of the information generated internally with the conditional components of the rules stored in LTM. In general, the conditional components of rules that have been satisfied frequently or that seem to match closely the dominant conditions have a higher probability to be activated. Anticipating errors at this level of performance requires identifying other rules that could be considered more capable to answer the requests of that task and of the whole process. Thus, can be provided not only detailed knowledge only for the current tasks, but also knowledge of the process through which the person obtained knowledge based on rules.

Yet, the general rules have often higher levels of activation in LTM because they have an elevated probability to be met in contextual conditions that involve a smaller amount of work and high time restrictions.

At the knowledge-based performance, when the required associations or schemes are not available in LTM, the control shifts first of all towards intensive activities. This level of

performance is often associated with high degrees of freedom that characterize a man *moving through the problem space* and suggests a greater register of behavioural responses and appropriate reactions to errors. The contextual factors that include characteristics of tasks and personal factors that comprise emotional states, risk attitudes and confidence in the intuitive abilities can play a significant role in shaping the models of the error, making these types of errors more difficult to predict.

At this level of performance we notice the insignificant importance paid to the prominent signals or early data, to tendencies of confirmation, to using representative available resources and researches (especially for estimating the cause-effect relations), underestimation and overestimation of the probability of the events as a response to the observed data), wandering (jumping from an exit to another, often without realizing that the exits have already been visited, without having an essential movement in the problem space) and seclusion (overestimation of several details on other's account, probably more relevant information).

5. Conclusions

The study of human error is a topic that deserved being discussed upon in the view of reaching the essence of the things and becoming more prepared to protect our organization. On the basis of the investigations we carried out, we retained several ways of action, which we synthesize below instead of conclusions:

- ✚ *Interactive computer systems* that can constrain the user to correct a priority input inadequate for the procedure, can issue warnings on actions that could induce errors and can also use auto-correction algorithms that wait for the user intentions. Unfortunately, each of these methods can be interrupted, according to the context where they are used.
- ✚ *Written work procedure*, largely spread but very easily neglected. Most of the procedures for the high-risk operations include warnings, contingencies (information about when and how one should give up when dangerous conditions occur during operations), and other specifications. In order to avoid the recurrence of past incidents, these procedures are continuously updated. That is why they increase in size and complexity up to the point when they can contribute to the overcharge of the information, enhancing the possibility to miss or to mistake important information. The procedures that undermine the impulse of human action usually tend to be broken.
- ✚ *People themselves* are quite good at detecting and correcting many errors taking into account their experience. Auto-correction requires that man should attentively invest resources periodically to check if his intentions have been fulfilled and if not, to find appropriate suggestions.
- ✚ The transfer of *good practices* in organizations, the preservation of organizational knowledge and experience.
- ✚ Developing certain *human competences* capable to detect human errors.
- ✚ Developing *managerial competences* in the human error field.
- ✚ An *organizational culture* favouring a correct attitude towards error.

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Consideration Regarding Diagnosis Analyze of Corporate Management

Mihaela Ciopi OPREA

mciopi@yahoo.com

"Petrol Gaze" University of Ploiești

Abstract

Diagnosis management aims to identify critical situations and positive aspects of corporate management. An effective diagnosis made by a team with the status of independence from the organization's management is for managers a useful feedback necessary to improve performance. The work presented focuses on the methodology to achieve effective diagnosis, considering multitude criteria and variables to be analyzed.

Key words: diagnosis criteria and variables, levels of diagnostic, qualitative and quantitative analysis.

JEL Code: M10

1. Introduction

The role of diagnostic analysis is to provide a qualitative overview of the overall performance of corporate management and to identify actions for improvement. These actions are aimed at removing the causes that have generated negative aspects. Efficient diagnosis made by a competent team with the status of independence from management activities of the organization, is for managers a useful feedback necessary to improve performance.

The literature review diagnosis was addressed different aspects such as general diagnostic of the organization, business diagnosis, diagnosis of human resources, financial and economic diagnosis, and diagnosis of technical and scientific potential. A diagnosis of managerial work was done by George Bailesteanu in his *Diagnosis and assessment firm*. Also, Ovidiu Nicolescu and Ion Verboncu in his management of the organization and redesigning the organization, address the diagnosis management system, as the steps in professionalism of Corporate Management.

The purpose of this paper is to present a methodology allowing a fair and objective evaluation of business management within the organization. In this regard, the content of the paper will focus on qualitative and quantitative analysis of diagnostic criteria identified.

2. Objectives and diagnosis criteria

Purposes of the diagnosis performance management are: assessment strategies and company policies, organizational structure, decision-information system, methodology and system efficiency achieved in the organization.

In order to conduct a review as objective diagnostic criteria to determine the following:

- ✚ Capacity management team to develop competitive strategies and policies;
- ✚ Efficiency of the organization activities;
- ✚ Quality substantiation decisions;
- ✚ Quality information system;
- ✚ Using the systems, methods and managerial techniques appropriate profile of activity;
- ✚ Social responsibility and business ethics;
- ✚ Competence and managerial skills;
- ✚ Leadership and management style;
- ✚ Efficiency and effectiveness of management.

Each criterion is individualized by specific diagnostic variables or indicators. Figure 1 shows synthetic scheme of management diagnosis.

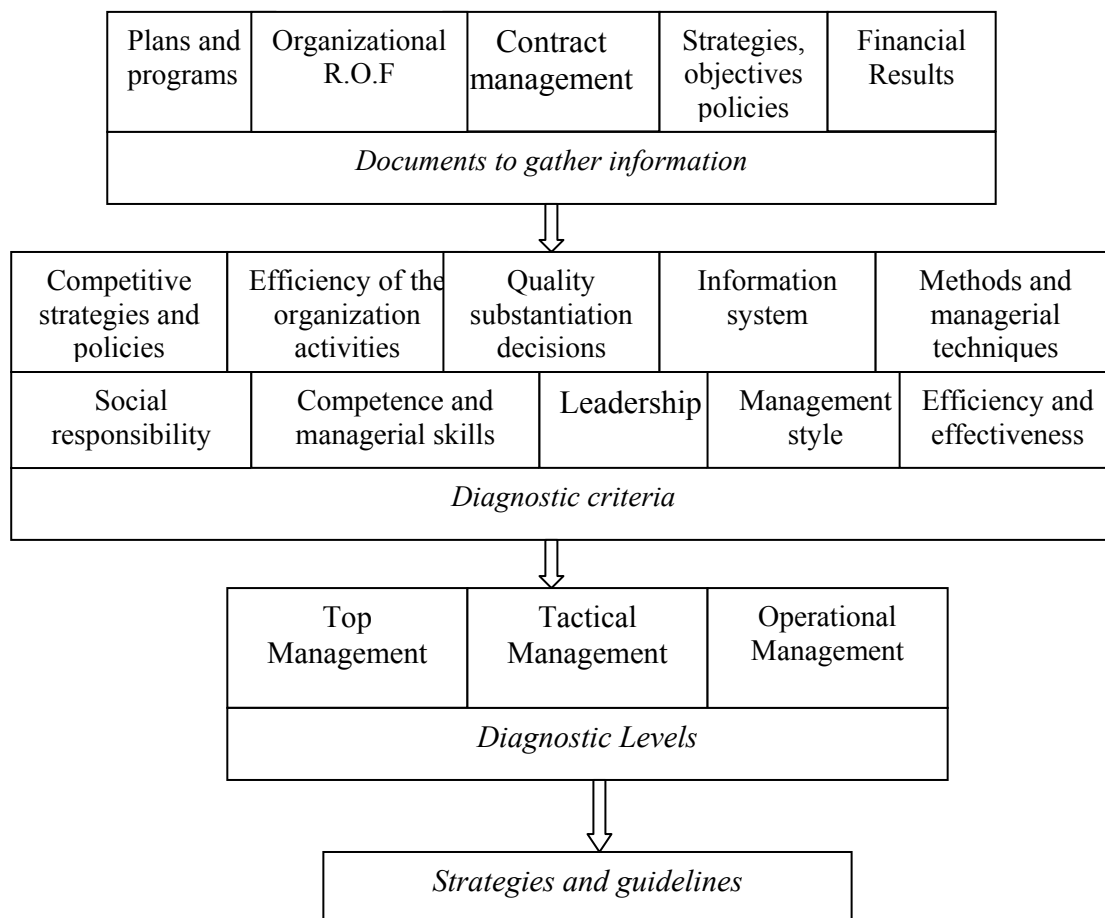


Fig.1. Diagnostic scheme management

To effectively analyze the proposed criteria, the diagnostic team to collect process appropriate information in the following documents:

- ✚ Regulation of organization and functioning
- ✚ Organizational
- ✚ Contract Management
- ✚ Strategies, goals and company policies

- ✚ Production Programs
- ✚ Investment programs (feasibility studies, business plan)
- ✚ Plan expenditure
- ✚ The expenditure reduction
- ✚ Company's financial results

Also, and effective diagnostics should take into account the existence of three levels of management with specific targets: the top management, tactical management and operational management.

Analysis of diagnostic criteria was made taking into account the different approaches to management organization current social and economic conditions.

3. Capacity management team to develop competitive strategies and policies

A proper foundation of strategies and policies makes long-term survival of the organization in terms of a very dynamic environment. In a globalize market, competitive, sometimes affected by strong instability, such as a financial crisis, managers must be able to find viable solutions based on strategic alternatives to reduce costs or restrict activities. With a stable environment, with a trend of increasing strategic alternatives should be focused on developing products, markets and implementation of investment projects.

In this respect, managers should know the principle of navigational change that requires updating the continuous adjustment of the initial plan, depending on changes in environmental conditions.

In term of diagnosis management, analysis of this criterion focuses on practical issues:

- ✚ Existence of coherent strategy based on a through *SWOT* analysis and forecasts economic, technological, commercial;
- ✚ Existence of company policies in key areas of activity: commercial, research, investment, production, personnel, financial;
- ✚ There is a specialized compartment of planning-programming models using prospective research

4. Efficiency of the organization activities

The organization aims to identify, classify and group activities imposed by achieving mission and goals of the organization, to determine the quantity and quality of resources to be used. However, the organization provides the authority and responsibility to perform the tasks incumbent on the organization's human resources, establish and maintain relationships between them.

Variables analyzed in this criterion are:

- ✚ Suitability to the specific business organization chart and the correlation between its content and the actual situation;
- ✚ Interaction between compartments;
- ✚ Share hierarchical;
- ✚ Degree of structuring the tasks, duties, responsibilities and powers stations, offices and departments;

- ✚ Updating the rules for organizing and running, the descriptions of functions and positions;
- ✚ The degree of organizational flexibility;
- ✚ Specific focus on organizational change people's behavior.

5. Quality substantiation decisions

Taking into account the requirements necessary decision in the context of many changes in contemporary economics, may be considered appropriate analysis of this criterion in terms of the following variables:

- ✚ Degree of decentralization of decision-making authority which examines in close correlation with firm size and degree of diversification of activities;
- ✚ Using modern methods for optimizing decision-making in conditions of certainty, risk and uncertainty, such as simulation methods, linear programming technique, utility theory, game theory;
- ✚ Ability foundation of the major decisions concerning the market, investment decisions (feasibility studies) relations with financial and banking organizations.

6. Quality information system

From the perspective of its criteria, the diagnostic team should consider the following:

- ✚ Use of information technology within the firm and creating specialized IT department;
- ✚ Ensure functionality for management information system;
- ✚ The implementation and use of decision support system, consisting of: database company, a user database and all data processing computer applications;
- ✚ The database company;
- ✚ Knowledge of the company on national and international developments;
- ✚ The ability to communicate information flows with other firms.

7. Using the systems, methods and management techniques

Management methods and techniques used within the organization to ensure efficient work. For large and medium organizations it examines the application of modern management systems such as management of projects, management by exception. Diagnostic team also will examine to what extent they used a series of management techniques currently applied by performing companies, such as: business plan, SWOT analysis, business games and management simulation.

8. Social responsibility

Areas of social responsibility have a very wide area of coverage, aimed at environmental issues, consumers, employees, society as a whole. Managers need to take social responsibility activities as required by law and a series of voluntary actions that could have long term positive effect. It is necessary to strike a balance between the objectives of productivity and profitability on the one hand, and needs, the wishes of employees on the other hand. Clearly, managers need to assume social obligation to all business partners (Table 1). The partners are all those persons or groups who are directly or indirectly affected by decisions taken within an organization.

Table1. Social obligations of managers towards business partners

Partners	Social obligations to Partners
Shareholders/Owners of the company	Increase business value
Suppliers of raw materials	He development of fair business
Banks and other lenders	Credit refund under commitment
State Institutions	The rule of law state institutions
Employees and unions	Providing safe working conditions and fair negotiations with union representatives
Consumers	Providing safe products, approved and certified
Competitors	Fair competition and compliance with trade restrictions
Local communities and society as a whole	Avoiding business practices that harm the environment

9. Management style

Management style is a key factor influencing the organizational communication and employee motivation. In this regard, the literature emphasizes that the following management styles:

- ✚ *Authoritarian style I*, characterized by the top decision- making organization with no any communication with employees;
- ✚ *Authoritarian style II*, the manager requests information from subordinates but takes he decision alone, subordinates may or may not be informed about the situation;
- ✚ *Advisory style I*, characterized by consulting members of the decision-making in solving problems, but ultimately, decisions are taken by managers without considering the views of subordinates.
- ✚ *Advisory style II*, the manager and subordinates meet in groups to analyze problems but the decision is taken by the manager.
- ✚ *Participatory style* in which managers and subordinates as a group problem-solving approach, with evaluating alternatives and establishing decisions by consensus.

Obviously such an approach remains purely theoretical, practical experience demonstrating the need to address contextual style of management (and management process), taking into account the characteristics of subordinates. For example, if a decision must be taken within a very short time, the most effective style is authoritarian.

Modern management theory and practice have proven efficiency of a participatory management style mainly because employees become more productive if participants are considered not only the objectives but also to establish their determination.

Analysis of management in terms of this criterion can be a highly subjective and is vulnerable to environmental changes. Testing employees on the basis of a questionnaire and statistical processing of responses could provide a solution for assessing the degree to which management style applied to different levels of the organization's leadership is strength or a weakness for analysis.

10. Competence and managerial skills

It is increasingly evident that, under current conditions, a good manager must not only have adequate professional knowledge but also the ability to take risks, capacity for analysis and synthesis, intuition, imagination, ability to communicate and establish relationships business partners, the ability to listen and guide.

Also, each level of management requires specific skills. At top management level prevailing *conceptual skills* that requires the ability to perceive the organization as a whole to understand how different business functions interact and complement each other, how the environment result in changes in the organization.

At the tactical management, *human skills* prevail, focusing on attitudes, communications, and development of relations between people. Operational management needs mainly *technical skills*, the ability to apply expertise in enforcement techniques and procedures work.

11. Efficiency and effectiveness of management

Management efficiency is resulting from how the organization's total resources are used to obtain as high productivity. Managerial efficiency is measured by a series of financial indicators such as: economic profitability of sales, cost, and return on assets.

Analysis of these indicators can be both *dynamic*, monitoring changes over a longer period of time and also *compared* with competitors, to indicate the position in relation to them and guide development strategy.

Also, contract management may determine the annual values of managerial performance criteria expressed by the following indicators:

- + Rate of profit;
- + Profitability measures;
- + Recovery time;
- + Period short-term debt repayment;
- + Stock rotation;
- + Labor-productivity;
- + Share of wages in production costs;
- + Potential growth / development company

Managerial effectiveness refers to using its resources to achieve objectives. From this perspective, assess the following indicators: the degree of realization of investment program, the degree of achievement of planned production, employment costs to the amount planned the implementation of cost reduction program.

12. Evaluation of diagnostic criteria

Evaluation of diagnostic criteria may be both *qualitatively* and *quantitatively*.

Qualitative assessment is done by classification criteria / diagnostic variables under the positive or negative, resulting matrix strengths-weaknesses of Corporate Management.

Table 2. Example of matrix strengths-weaknesses of Corporate Management

Strengths	Weaknesses
1. Rates of profit recorded a growth trend 2. The major decisions on market simulation techniques used in business and games 3. In the company there is a department with responsibilities in developing strategies.	1. Relations between compartments are "broken". 2. There is no test of managerial skills on the three levels of management. 3. The investment program has achieved 80%. 4. There are tensions in relations with unions 5. Implementation of tactical and operational decisions is "cumbersome".

Qualitative assessment can be extended by analyzing the cause-effect. Each strength or weakness is the result of the action of a sum of factors coming from internal or external environment of the organization

Such analysis is useful in so far as the factors that have generated strong points can be extrapolated into the future and the causes for the weaknesses can be removed. For example, an increase in the rate of profit can result from implementing a cost reduction program.

Quantitative assessment is done by awarding scores on a scale of 1 to 5 according to the degree of fulfillment of criteria (table 3).

Table 3. Assign scores to the degree of fulfillment of criteria

The degree of fulfillment of criteria	Score P_i
Very poor	1
Weak	2
Average	3
Well	4
Very well	5

Each variable or diagnostic indicator to rank with a weighted K_i , which determined by comparing successive two diagnostic criteria, associating the matrix $\|A\| = \|a_{nm}\|$. The values of this matrix are 0, 1, 2 and 4 in corresponding with the situation presented:

- 1, if the criterion is as important as other;
- 2, if the criterion is more important than the other;
- 4, if the criterion is more important than the other;
- 0 in all other cases.

In according with these values *weighting coefficient* K_i is calculated with relation 1.

$$K_i = \frac{\sum_n a_{nm}}{\sum_n \sum_m a_{nm}} \quad (1)$$

Scores awarded for each criterion is weighted by the coefficient K_i , by summing up resulting in an overall point P_g (relation2).

$$P_g = \sum K_i \cdot P_i \quad (2)$$

Overall score obtained can be interpreted as follows:

- $P_g \leq 2$ reflects a critical situation management
- $2 < P_g \leq 3,5$ reflects a critical situation with the prospect of recovery by taking corrective actions
- $3,5 < P_g \leq 4,5$ -good situation
- $P_g > 4,5$ -situation very well (performance management)

13. Conclusion

Increased profitability and sustainability of organizations, regardless of the profile of activity, are determined by the ability of managers to adapt to national and international realities in the

contemporary world. Establishment of competitive strategies and policies, quality of decision making, access to information, social responsibility and work style are the defining elements for the practice of management, under frequent changes in the external environment of organizations.

This paper aimed to establish a methodology to allow the fullest development of a diagnostic management. In addition, the methodology we presented practical methods of analysis for each diagnostic criterion. It is clear that changes in management theory and practice will determine the future reconsideration of diagnostic criteria and variables.

Furthermore, quantitative analysis provides managers the opportunity to self-assess their own work in relation to a reference level and to determine distances to be covered up to the level of performance management.

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IT&C during the Crisis

Valerica MAREȘ

maresvalerica@yahoo.com

Economic Studies Academy of Bucharest

Marius Daniel MAREȘ

maresmariusdaniel@yahoo.com

Spiru Haret University

Abstract

The development of the IT&C has been exceptional in the history of industrial changes and the telecommunication revolution leads to a decrease of the price of telecommunication services and equipment. The huge volume of information change the way of functioning of the markets, restructuring of economic activities and to opening of new opportunities for creating wealth by exploiting the available information. The analysis of informational society during a crisis period implies examining the specific philosophical and methodological problems that appeared while using them and especially the philosophy of the Internet, the philosophy of principally open systems.

Keywords: telecommunication revolution, restructuring of economic activities, exploiting the available information, functioning of the markets, a crisis period, open systems

JEL Code: M21, O32, K00

1. Introduction

The informational society means a set of rules, a new organization, a new economy, which have as a central element the convergence of three key factors: informational technology, communications and multimedia production. Moving towards the informational society implicitly means adapting the new economy on the current state of the society, which supposes a bipolar approach:

- ✚ at the level of the developed states, of the capitalist societies that have a functional market economy and in which the legislation is clear and flexible
- ✚ at the level of the developing countries (including Romania) which are now in the stage of transition to the market economy, going through a process of changing the role of the state.

The rapid development of the informational technology from the last years had an increasing impact on the society and on the global economy, bringing forward the fundamental changes of the production and distribution models, of the commercial conditions, of the occupying of the working force and of the everyday life

The premises of the informational society are to be found in its characteristics, which are expressed from a couple of perspectives, from global to individual ones:

- ✚ From a political perspective, the informational society is democratic;
- ✚ From an administrative point of view, it offers development possibilities for businesses and public administration;
- ✚ From a social point of view, it offers the population easy access to education through the development of the informatics and communications infrastructure;

- ✚ From a juridical point of view, it modifies the nature of work, creating conditions for deploying activities specific to the informational age;
- ✚ From an economical point of view, it determines increasing the potential of businesses and of the labour productivity;
- ✚ From a cultural point of view, it is a society based on knowledge, ensuring the consecration of the human values (tradition, religion, interhuman relationships);
- ✚ From an individual point of view, it allows exploiting intelligence with small investments.

2. The analysis of the new economy

For the new economy, important standardization issues concern questions like who determines the network norms, who decides on domain names, how is the compatibility between software programs ensured or how can new improved technological advances substitute obsolete, but still widely spread practices. The overriding principle to answer this question should be the desire to guarantee open network access and open electronic commerce practices. This means, that the use of existing business approaches can yield the benefit of common standards while the possibility of introducing enhanced applications or processes limits the monopoly power of the established firms. The frequent interaction between market participants encourages the formation of uniform standards within networks and e-commerce in a gradual market oriented approach.

The analysis of the current informational society during a crisis period implies studying and developing of new informational and communicative technologies, as well as examining the specific philosophical and methodological problems that appeared while using them and especially the philosophy of the internet, the philosophy of principally open systems.

The question is how to build trust of consumers to e-Commerce and increase security of the Web? Building of trust in e-Commerce is not only a technological or judicial problem. It is related to overall strategies of Internet shops, branch organisations, as well as state authorities. In many countries, apart from branch organisations, that are like the Internet self-government, special state committees for building trust were established (e.g. USA, UE, Singapore), which should help in quick and sound development of e-Commerce.

What the State should do for building trust and security?

Main tasks of state bodies are:

- ✚ Law regulations, which create friendly environment, where minimum of consumers. Laws, especially concerning privacy as well as security, are protected by state.
- ✚ Promotion of proper behaviours, credibility of Web Sites and culture of security within the Web, what is especially important for private users.
- ✚ Big companies feel danger and spend millions dollars for IT security - expenses for IT security and business continuity grow at 35% yearly (Ernst&Young). After 11th September, number of organisations having business continuity plans during the system outage strongly increased (Ernst&Young 2003). Bigger problem is security of private users. It is a problem of lack of money as well as knowledge of proper behaviour.

The informational society based on knowledge means more than the progress of technologies and applying informatics and communications, it involves also different dimensions: *social* (with an impact on continuous learning), *environmental* (with an impact on using resources and protecting the environment), *cultural* (with an impact on conservation and development of the national and international heritage, promoting pluralism, the protection of minors, the development of the multimedia industry and of the production with informational content) and *economical* (by developing new paradigms of the digital economy and of the new economy based on knowledge, innovation, entrepreneurial and managerial culture, education of the citizen and of the consumer).

Electronic commerce has, in a broad sense, a much deeper impact upon the evolution of the business and encompasses, in fact, not only the new commercial acquisitions, but also the total amount of activities, which support the marketing goals of a company, and which can include, for example, advertising, sales, payments post-sale activities, clients oriented services etc. As a result, the range of services, which supports and lends assistance to this new business field, has been expanded. These services refer to the Internet suppliers, to the security systems and the electronic signatures, to the on-line transactions or the shop networks, as well as to the services of a more general nature, such as consulting, web design, site creation etc. This evolution has a major impact upon economy as the creation of new companies, the diversification of the existing ones and, especially, the potential of the labour market and its future degree of employment are concerned.

E-commerce illuminates differences that may exist between products, industries and countries, there by highlighting the need to reform inconsistent regulations. While e-commerce can dramatically reduce some production costs, it does not offer a "friction free" environment. Rather, owing to new costs associated with establishing trust and reducing the risks inherent in this type of activity, it requires new intermediaries. Widespread "disintermediation" (producers selling directly to consumers without aid of any intermediaries) is not likely, but the nature of intermediary functions is expected to change. The translation of cost reductions into price reductions is not automatic. It is contingent on sufficient competition. Currently, price reductions attributable to e-commerce have only been evident in a few sectors. However, the lower costs associated with e-commerce should lead to greater product, market and international competition, especially in services, and thus to greater price competition. It is clear that electronic commerce will change the structure, if not the level, of pricing as more and more products are subject to the differential pricing associated with customised products, fine market segmentation and auctions, and as the ease of changing prices increases.

3. Direction of the knowledge

The new economy suppose e-commerce is transforming the marketplace by changing firms' business models, by shaping relations among market actors, and by contributing to changes in market structure. Given the dynamic nature of these processes, the impact of electronic commerce will be firm-, sector-, and time-specific. Even if cyber-traders do not present a new commercial paradigm today, they play a catalytic role for other, more traditional companies that are entering electronic markets. Key market actors can thus contribute to the evolution and diffusion of e-commerce by forcing e-commerce solutions in sectorial and national contexts and, particularly, on suppliers. Electronic commerce does not always lead to greater market competition, but it changes firms' competitive advantages, the nature of firms' competition, as well as the market on which firms compete. The open, and potentially global, nature of electronic commerce is likely to increase market size and change market structure, in terms of the number and size of players and the way in which players compete on international markets. However, the extent to which firms can reorganise in the new electronic environment will crucially depend on the flexibility and adaptability of the work force. The impact of e-commerce on the marketplace will also depend on the existence of a critical mass of consumers. A novel aspect of e-commerce is the emergence of virtual communities in online networks. E-commerce favours the combination of streamlined business processes, flat organisational hierarchies, continuous training and skills acquisition, inter-firm collaboration, and networking. All these elements contribute to a favourable environment for innovation and improve performance.

Two main classes of vectors of the knowledge society have been identified: technological and functional vectors.

The technological vectors of the knowledge society are:

- ✚ The Internet, developed by geographic extensions, using transmission bands up to the largest possible, switching from one communication protocol to another, up to incorporating every institution, home and citizen in the network
- ✚ The technology of the electronic book, different from the internet book, although its distribution is done not only by Internet but also by CDs
- ✚ Intelligent agents - expert systems with artificial intelligence used for data mining and even knowledge discovery
- ✚ An intelligent environment for people's life and activity
- ✚ Nanotechnology and nanoelectronics (which will become the main physical support for processing information and also for many other functions, not only in the area of the knowledge society but also in the consciousness of the society).

The functional vectors of the knowledge society are

- ✚ Knowledge management for enterprises, organizations, institutions, national and local administrations;
- ✚ Management of the moral use of knowledge at a global level;
- ✚ Biological and genomic knowledge;
- ✚ Protecting the environment and ensuring a lasting and sustainable society through specific management of knowledge;
- ✚ In depth knowledge about existence;
- ✚ Generation of new technological knowledge;
- ✚ Developing of a new culture of knowledge and innovation;
- ✚ An educational system based on informational society methods (e-learning).

The number of functional vectors will increase because more and more branches of activity will become more dependent on knowledge. The penetration of informational technology is more significant because it draws financial resources from the university system and other educational systems. It should also be noted the relevance of the e-health sector, because the population uses Internet to search for information about health and the savings brought by such systems are felt by the patients as well as by the medical system. It can be also mentioned the improvement of the services of e-health through a better evidence of the history of the patients, the improvement of their awareness and the decrease of doctor appointments.

Both the public and private sectors need a fuller understanding of the requirements for fostering confidence in electronic markets, particularly among consumers. E-commerce and other information and communication technologies reduce the importance of time as a factor that dictates the structure of economic and social activity. It both raises the potential of saving time as consumers shop more efficiently, but also could reduce leisure as the technology provides a continuous electronic link to work. Regardless, many find that the pressure to perform tasks quickly is increasing. Linked to this is the broader question of the ability of policy-making apparatuses to accommodate. In spite of its complex and multidimensional nature the e-commerce should be approached with complete seriousness by the political decision factors as well as by the business community in Romania if there is wished the capitalization of the opportunities that it is opening in terms of economical growing, of competitiveness and integration.

The gains related the productiveness and efficiency generated by the e-commerce on the economy ensemble are so promising so that practically any attempt to ignore this new channel of business life development would be against productiveness and the pressure exercised by the big companies do not let to the Romanian companies other option than the one of the fast integration in the new electronic environment, if they want to maintain their competitiveness. The Romanian companies that are involved or that are intending to involve in the international commerce and want to derive gains from globalization must accelerate the incorporation of the new technologies and e-commerce in their business strategies. As the result, by the adopting of

the electronic commerce the Romanian companies have the possibility to be part to the global production and distributing systems. At present, this seems to be the most efficient solution for the integration in the world economy and for the rendering more valuable the advantages of the present globalization wave.

A more rapid adaption supposes an increase in the individual trust in the organization and in the society, while learning the necessary abilities for accessing and efficiently using information. The technological evolution constitutes the origin of the informational society based on socio-temporal independence of the human activity, which would offer multiple economical, social and political possibilities, whose anticipation can inevitably be a problem.

Developing digital technologies, in the context of a flexible work force in EU, of the market capital and of reducing the legislative obstacles in the way of competition, lead to an increase of productivity and offer the possibility of a lasting, strong and noninflationary economical development. This economical development has to be harmonized with the promotion of the cultural heritage, combining the digital culture with the advantages of telecommunications.

The change of the nature of work and of organizations (which evolve in the same time as the society and are the main mechanism for evolution) imposes the necessity of performing activities as collecting, integration, memorizing, changing, creation and exchanging information. Work proves to be more and more discretionary, being harder and harder to draw the borders of the labour activities. Routine work has become a rare thing, while there is more and more need of teamwork, and the individual division of labour cannot ensure the workflow of all the activities.

Disaggregation of information requires cooperation, while the excess of information could surpass the cognitive capacity of the employee. The evolution towards discretionarily does not imply the fact that the collective informational work is reserved only to professionals and to specialized services. More or less clear, this activity is also present in the productive environment where the production, the control of quality, the management of stocks and the management of the society generates multiple informational flows. In this context, the employees are to manager, integrate and do the acceptance, to obtain and communicate the information, all these becoming even more acute under the conditions of the current crisis.

The pessimistic image of a society in which individuals communicate and interact exclusively through a virtual environment should never become real, because the initiatives in the area of teleworking have shown that the social contacts can endanger the whole program of implementing the informational society.

4. Social interaction through IT&C

The need for social interaction, physical closeness and human affection will win over the electronic communication. Information technology will allow, through the new communication channels, the possibility of communicating and working. People will be capable of choosing the most convenient environment to suit the scope of their action, with the interaction partners, the need of information etc, in many occasions choosing the direct communication. Nevertheless, the information and communication technology (IT&C) will allow individuals to adapt to different social hypothesis (family, religion, and work, speeding the spare time, civic responsibilities etc, and leading to growth of the individual's personality). The ethical and legislative problems are not to be neglected taking into account the harmful information accessible through Internet, such as child pornography, terrorist activities, murder techniques, suicide methods etc.

The community of Internet users is as volatile as an object of study and, at least from a multicultural perspective, it does not seem to suit the classical study methods. Most discussions

on the infrastructure of information disregard the fundamental aspects of *stocks and flows* of information, *human capital* and *organizational capital*. That is why a special attention should be given to creating, maintaining and improving these three entities, which should be added a fourth one, the *cultural capital*.

Implementing the informational society supposes adopting a good management of IT&C use. Using IT&C on a large scale and, in consequence, large investments in this field, have led to a „paradox of IT&C productivity”, which record a growth under potential and, as a consequence, can lead to the possibility of not recuperating the investment. This can happen because there exists a difference, sometimes quite a big one, between the „technology offered” (the one that is bought and installed) and the „used technology”, (what the employees get to use, depending on their level of education, culture, adaption).

The computers not the Internet themselves cannot make an economy more productive or more competitive as well as the e-commerce is not a substitute for the export strategies. The on-line access to the markets and information do not themselves solve the ensemble of the issues related to the companies’ competitiveness. Radical productivity and competitiveness bonuses may be expected providing that Romania shall built its capacity to exploit in a real manner the potential of the new IT&C and of the e-commerce to make more efficient the economical processes. Making valuable the new opportunities inherent to the e-commerce in terms of efficiency as well as the globalization advantages by a more intense involvement in this commerce is not an easy task, because it depends on a huge variety of factors and conditions and the expected positive changes shall appear in time. Romania should have to confront numerous challenges and to cross over the many obligations that need to be approached concomitantly on more domains: economical, social, judicial etc.

Romania must develop and consolidate its technological and informational infrastructure (facilities of telecommunications, IT&C equipments, computers, etc.) needed by the acceleration of the diffusion of the e-commerce at the level of the whole economy. This means, firstly, the extension of the access to the telecommunications and Internet services at the level of prices, quality and speed supposed by the e-commerce. Related to this, Romania should develop the last technological progresses as well as the positive international experience related the reforms in the field of the regulation the telecommunications and the other infrastructure services.

By exaggerating the role of IT&C as an abstract notion, one eludes one of the modern paradigms of the anthropocentrism of the enterprise. All organizations that have bought and implemented IT&C have hoped to rapidly and deeply transform the work style of their employees, to get a significant increase in productivity and profit.

Enterprise management has the task of using IT&C to the maximum extent, but „the paradox of IT&C productivity” can only be explained by the fact that the profit brought to using correctly and as completely as possible, of IT&C and not technology by itself. Most of the times, hyper modernization in IT&C is not followed by the management of its use, either due to lack of knowledge or due to minimizing the importance of management of the human resources.

Managers believe that offering a set of useful instruments, of some performing electronic equipment, of user-friendly interfaces, will lead to the expected profit without many problems. However, all these are subject to failure without an adequate training, by ignoring the psychological profile of the individual and by not knowing the human process of accepting the informational development. Lately, more and more managers are concentrating their resources, attention and effort to correctly implementing IT&C, at the right place and time and, more importantly, for its correct use.

Many executives have become wary of hidden costs based on prior experiences with data warehousing and other enterprise application initiatives and are putting BI vendors to the test to disclose as much information as possible about the expected costs associated with their solutions. Although business intelligence (BI) is becoming a higher priority in many organizations, adoption remains a challenge, particularly in the SMB world (that of small and midsize businesses) as these companies frequently will not have the internal IT resources to tackle the complexities involved with implementation and support.

The cost associated with this data complexity is also top of mind for SMBs. The top business pressure causing SMBs to stand up and take notice of the costs associated with BI is the need to improve integration of data from multiple business applications. Keeping a firm handle on BI project costs from start to finish has enabled substantive cost reductions for the top performing SMBs.

Organizations spend almost two thirds of their budgets allocated for training the employees on transporting them and on the facilities necessary for the trainings. Moreover, the indirect ones, generated by the lack of productivity during the training period, double the direct costs. That is why the weaknesses of a continuous training initiative are sensible enough for compromising the whole process but the complete on-line training solutions are promoted to overcome the shortcomings and the immediate and long-term effects.

Currently, many organisations use information technology in one form or another to manage their knowledge. This is primarily used to store and transfer explicit forms of knowledge. However, information technology is not just about computers. Tools such as video-conferencing may also be useful for the transmission of tacit knowledge. Capturing tacit knowledge and then storing it is vital for effective knowledge management. Some organisations have developed software to encourage social interaction in organisations in the hope that a unique forum for tacit knowledge exchange will be established.

Knowledge management IT&C expanded in the mid-1990s. Subsequent knowledge management efforts leveraged semantic technologies for search and retrieval and the development of e-learning tools for communities of practice. More recently, the development of social computing tools, such as blogs, has allowed more unstructured and self-governing approaches to the transfer, capture and creation of knowledge, including the development of new forms of communities and networks.

In the same time, IT&C can be a threat to employees, by introducing automatism, a dependence of technique and the intra and intercontinental migration of the work force, especially in the European Community. Introducing and exchanging electronic data will lead to a massive reduction of services, as for example the classical mail and, implicitly, to freeing work force that can grow the unemployment if there are not any absorption programs. Multimedia and computer networks introduce flexibility with no precedent in the classical education, once there is independence in time and space of the learning activity. The disponibility of information and the role of communication in the local and global networks will lead to the appearance of a variety of facilities connected to the educational process.

5. Conclusion

The new economy has to be understood in the sense of transforming the economic activities, which takes place while the digital technologies solve the problems of accessing, integrating and storing information easier and cheaper. In this context, there are at least 4 ways of describing the new economy:

- ✚ digital economy;
- ✚ network economy;
- ✚ crisis economy;
- ✚ informational based economy.

Currently IT&C is the most important industrial sector of transition from the society based on mass production towards the information society characterized by globalization, flexibility and mobility the unique impact of IT&C consist in the role that it plays in transforming the economy and the society as a whole. The global communication technologies and networks transform the economic activities, leading to an increase of productivity, creation of new economic opportunities and the appearance of new jobs. This perspective is valid for developing countries, like Romania, but also for developed states, only when there exists a permissive legislation for exploiting new opportunities.

The ever-increasing interest for demonstrating the impact, supposed to be positive, of ICT, of Internet, of society in general, can be explained by the need to justify the urgent and massive investments in this field and the openness to such services by the international financial institutions. Studies and researches from the last years talk more and more of the challenge of *biometry* as an opportunity for securing information. Biometry offers an alternative for identification in a network by measuring human body parameters, and this identification has the advantage that the attributes of the body cannot be forgotten, lost or transferred easily from a person to another and is hard to falsify.

Each IT&C has its own advantages, but they are too expensive to be deployed at large scale and are not sold commercially. Consumers are reluctant to adopting this technology if they have to pay too much for it and the benefits do not reward the expense.

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Aspects of Working Force Occupancy

Roxana Mihaela PIVODĂ

roxana_pivoda@yahoo.com

"Spiru Haret" University Constanta

Abstract

As an analysis regarding economic practice and theory, the occupancy problem has been a well known matter for years. Above all, working force occupancy will always be a new and exciting theme, not only through its various sides from which it can be approached, but also as a consequence of the mutations induced by the appearance and extension of some events taking place at a national and international level. Although working force occupancy is hardly debated in the specific literature through the existence of numerous works and articles, it still remains a present and important theme because of its multiple social-economical implications the work market evolution generates.

Keywords: working force, occupancy rate, social cohesion

Jel Code: J4

1. Introduction

The integration of Romania in the European Union meant, even before the integration, an adaption of social politics to the politics and values of the European Union. In Romania, the transformations after 1990 lead to important social changes related to the transition to a market economy. This transition generated economic changes, as well as the need of implementing a system of social protection able to minimize the effects of the economy on the population.

The employment policy plays a very important role in the European Union, being a fundamental element for the development of the entire European region. The implementation of active employment policies represent safeguard measures for people facing problems regarding unemployment, poverty eradication, dumping, social exclusion. By accepting new Member States, the great diversity of each state' system entails a complex harmonization with different domains: the purpose of these policies is to ensure a social, economic and political balance at the European level between all Member States.

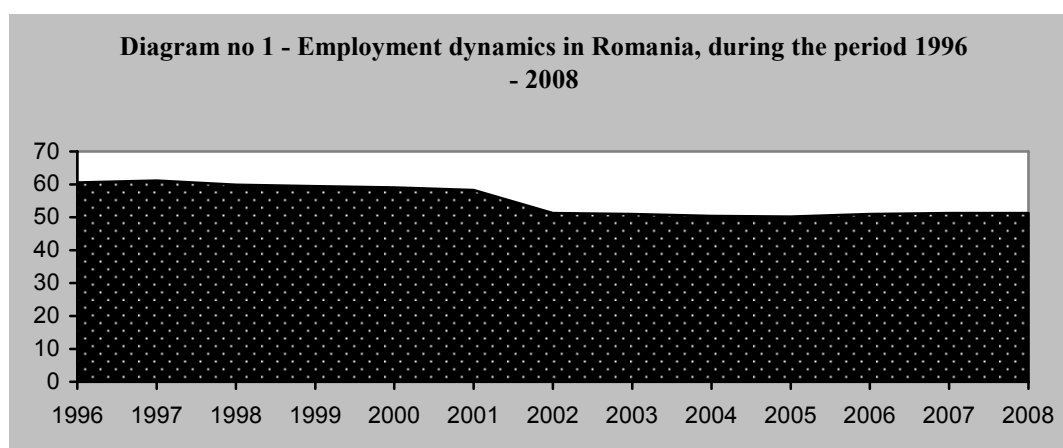
The employability rate in the social – economical activities proves how the labour market works in a period of time and at a certain moment. The rate between the offer and request of employment determines the employment rate and or the unemployment rate under certain time and space frames. The problematic of employment and unemployment constitutes an important stage in the macroeconomic balance and an indispensable component of the macroeconomic and macrosocial policies. In the terms of the labour market, the unemployment is a macroeconomic phenomena opposed to the employment, representing a relative extra of active population to the one that can be employed in feasibility conditions, imposed on the market. On the labour market we can have: a balanced situation, which reflects an optimal rate of employability and an unbalanced situation which reflects an low level of employability or super-employability rate of employment.

The unemployment is analyzed in the specialty literature from different angles, thus creating opinions which are the base of some ample controversies. In time, different definitions for unemployment were given, taking into account the degree of its grasping as a concept and of its potential to be measured. Many people have the possibility to support through their own activity the economical and social growth of a nation, a fundamental preoccupation for the prosperity of any society. A job involves not only income, but it also holds a great stake in a person's involvement in the social life. A higher rate of occupation of jobs leads to an equilibrium on the labour market, an equitable and balanced distribution of the standards of life, oriented towards an economical growth. These are starting points for a durable and sustainable social and economical development.

The occupancy of the working force is an important aspect of the dynamics of any society, that is necessary for Romania to take into account that the performances of the economy and the capacity to deal with international competitive pressures, especially while integrated, are directly linked to the quality of the human factor and to the structural changing of the working force.

2. The dynamic of working force occupancy

A general analysis of the evolution of the Romanian working force occupancy situation, from 1996 to nowadays, is shown in the diagram 1.



Sursa: <http://www.insse.ro>, AMG 156A

Following the Romanian working force occupancy between 1996 and 2008, we can say that it had a descending trend if we take into account the fact that in 1996 the occupancy rate was 60,6% and at the end of 2008, 51,3%. If we compare 2002 with 2001 the descending evolution of the occupancy rate shows a 7% suddenly deduction in 2002. The low occupancy rate from 2002 continues to be rather constant till 2008, even if there are some slight fluctuations towards this period. The causes of the descending evolution which the working force occupancy acquired were a a lot, beginning with the production decrease, especially of the industrial one, having in front of us the internal market contractions and losing some important elements of external market, as a consequence of a low competitiveness of Romanian products on the external plan and continuing with the failure of the macrostabilization programs and delaying the necessary privatization; investments` reduction and the reorganization of some unprofitable economic agents; work force low mobility on the professional and territorial plan; compulsions that were determined by the international economic environment.

On the other hand, the work force occupancy rate is also influenced by the population diminution in the past years, as a consequence of the birth rate deduction and also of the growth regarding the number of those who work abroad. The comparative analysis of Romania`s occupancy rate towards the other European Union countries is shown in table no 1. According to some studies regarding the 27 EU states, made by the EU Vital Statistics Institute

– Eurostat- in the European Union the occupancy rate had a growing trend on the whole period. If in 1997, the Romanian occupancy rate had an advance of 4,7 percentage points towards the average European Union countries, at the end of 2008 there was 6,9 percentage points negative difference, occupying the 26th position, after Malta, which had an occupancy rate of 55,2%.

Table no. 1. EU employment rate, during the period 1997-2008

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
EU 27 countries	<u>60,7</u>	<u>61,2</u>	<u>61,8</u>	<u>62,2</u>	<u>62,6</u>	<u>62,4</u>	<u>62,6</u>	<u>63</u>	<u>63,6</u>	<u>64,5</u>	<u>65,4</u>	<u>65,9</u>
Belgium	56,8	57,4	59,3	60,5	59,9	59,9	59,6	60,3	61,1	61,0	62,0	62,4
Bulgaria				50,4	49,7	50,6	52,5	54,2	55,8	58,6	61,7	64,0
Czech Republic		67,3	65,6	65,0	65,0	65,4	64,7	64,2	64,8	65,3	66,1	66,6
Denmark	74,9	75,1	76,0	76,3	76,2	75,9	75,1	75,7	75,9	77,4	77,1	78,1
Germany	63,7	63,9	65,2	65,6	65,8	65,4	65,0	65,0	66,0	67,5	69,4	70,7
Estonia		64,6	61,5	60,4	61,0	62,0	62,9	63,0	64,4	68,1	69,4	69,8
Ireland	57,6	60,6	63,3	65,2	65,8	65,5	65,5	66,3	67,6	68,6	69,1	67,6
Greece	55,1	56,0	55,9	56,5	56,3	57,5	58,7	59,4	60,1	61,0	61,4	61,9
Spain	49,5	51,3	53,8	56,3	57,8	58,5	59,8	61,1	63,3	64,8	65,6	64,3
France	59,6	60,2	60,9	62,1	62,8	63,0	64,0	63,7	63,9	63,8	64,6	65,2
Italy	51,3	51,9	52,7	53,7	54,8	55,5	56,1	57,6	57,6	58,4	58,7	58,7
Cyprus				65,7	67,8	68,6	69,2	68,9	68,5	69,6	71,0	70,9
Latvia		59,9	58,8	57,5	58,6	60,4	61,8	62,3	63,3	66,3	68,3	68,6
Lithuania		62,3	61,7	59,1	57,5	59,9	61,1	61,2	62,6	63,6	64,9	64,3
Luxembourg	59,9	60,5	61,7	62,7	63,1	63,4	62,2	62,5	63,6	63,6	64,2	63,4
Hungary	52,4	63,7	55,6	56,3	56,2	56,2	57,0	56,8	56,9	57,3	57,3	56,7
Malta				54,2	54,3	54,4	54,2	54,0	53,9	53,6	54,6	55,2
Netherlands	68,5	70,2	71,7	72,9	74,1	74,4	73,6	73,1	73,2	74,3	76,0	77,2
Austria	67,8	67,9	68,6	68,5	68,5	68,7	68,9	67,8	68,6	70,2	71,4	72,1
Poland	58,9	59,0	57,6	55,0	53,4	51,5	51,2	51,7	52,8	54,5	57,0	59,2
Portugal	65,7	66,8	67,4	68,4	69,0	68,8	68,1	67,8	67,5	67,9	67,8	68,2
Romania	<u>65,4</u>	<u>64,2</u>	<u>63,2</u>	<u>63,0</u>	<u>62,4</u>	<u>57,6</u>	<u>57,6</u>	<u>57,7</u>	<u>57,6</u>	<u>58,8</u>	<u>58,8</u>	<u>59,0</u>
Slovenia	62,6	62,9	62,2	62,8	63,8	63,4	62,6	64,3	66,0	66,6	67,8	68,6
Slovakia		60,6	58,1	56,8	56,8	56,8	57,7	57,0	57,7	59,4	60,7	62,3
Finland	63,3	64,6	66,4	67,2	68,1	68,1	67,7	67,6	68,4	69,3	70,3	71,1
Sweden	69,5	70,3	71,7	73,0	74,0	73,6	72,9	72,1	72,5	73,1	74,2	74,3
U. K.	69,9	70,5	71,0	71,2	71,4	71,4	71,5	71,7	71,7	71,6	71,5	71,5

Sursa: <http://epp.eurostat.ec.europa.eu>

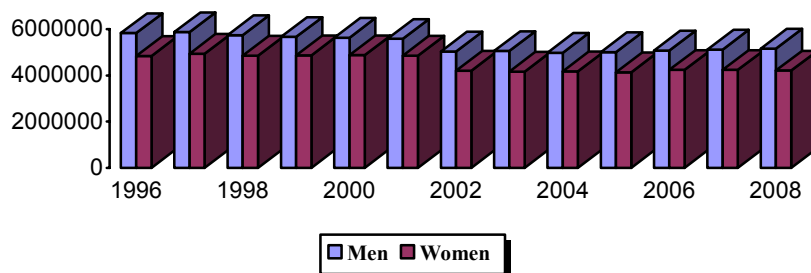
As we all know, in Romania, the occupancy rate is lower and lower, thing that makes it to move away from the European Union occupancy rate and from the main objective of the Lisbon strategy achieving a 70% occupancy rate until 2010. It is hard to believe that Romania will achieve a 70% occupancy rate in 2010 because of a 12,6⁴⁰ percentage points gap in the next 7 quarters, taking into account the fact that the occupancy rate had a descending trend beginning with 2002.

3. Analysis of working force occupancy on age and sex groups

After a course look of working force occupancy level in the last 12 years in Romania, the analysis continues with the participation level of both men and women towards the active population, presented in diagram no 2. Following the sex evolution on the active population, it can be noticed that the biggest balance of the active population is held by men. If in 1996, the male active population represented 5830360 persons, which was 54,6% of the Romanian active population, in 2008, the female active population had a 44,9% balance, representing 4211678 people.

⁴⁰ In the first quarter of 2009 the occupancy rate was 57,4%. Handout, no. 130 from July 6th 2009, <http://www.insse.ro>

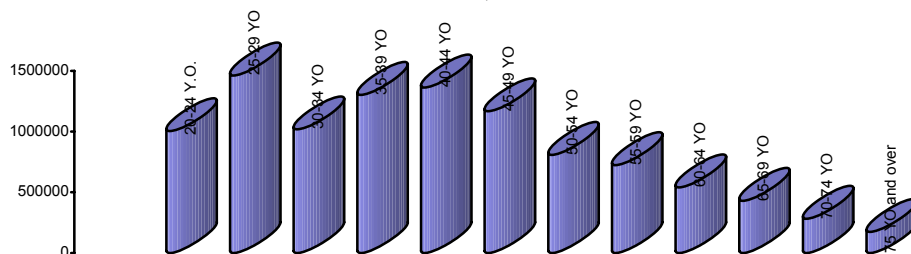
Diagram no 2 - The evolution of sex in employment in Romania, during the period 1996 - 2008



Sursa: <http://www.insse.ro>, AMG156A

The age structure of 1996 active population, shown in the diagram no 3, suggests a relatively high balance of the active population regarding the age between 25-29, representing 13,7% of the active population.

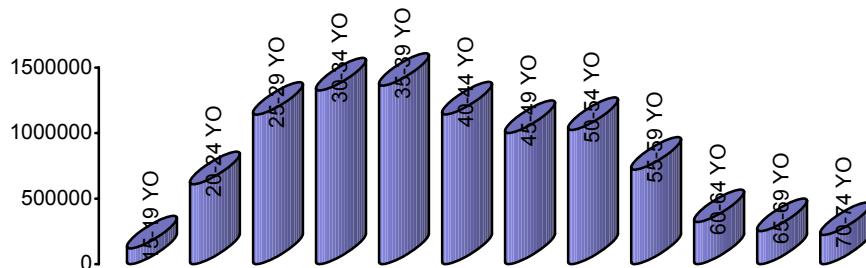
Diagram no 3 - Evolution of the employed population age groups in Romania, in 1996



Sursa: <http://www.insse.ro>, AMG110A

We can also find important balance regarding the age between 40-44, with 12,7%, followed by the group age 35-39, which represents 12,2%. In 1996, on all age segments, male active population has higher values. For 2008, the age structure of the active population is shown in diagram no 4.

Diagram no 4 - Evolution of the employed population age groups in Romania, in 2008



Sursa: <http://www.insse.ro>, AMG110A

The 35-39 age segment represents the biggest active population in 2008, having a number of 1361291 people, representing 14,75 of the active population. High values have also the 30-34 age group, followed by the 40-44 group, with a 14,3% and 12,3% balance. In 2008, the participation of the male active population is higher in all age groups.

4. Analysis of working force occupancy on age and environment groups

So as to go further the analysis of the active population, in table no 2 there are shown the values that the Romanian active population have achieved between 1996 and 2008, on age and environment groups.

Table no. 2. Employment by age and environment in Romania, during the period 1996-2008

Year	15-24 years old		25-34 years old		35-49 years old		50-64 years old		65 years old and over	
	Total	Urban	Total	Urban	Total	Urban	Total	Urban	Total	Urban
1996	1401102	541803	2480654	1441194	3833587	2407475	2072493	645851	885199	54981
1997	1372634	513026	2527854	1431305	3859999	2422570	2105466	647501	940872	57796
1998	1295484	500363	2534864	1410526	3740801	2350213	2032149	617464	992396	54725
1999	1234733	474192	2580716	1408290	3634819	2258352	2042097	627142	1042044	53330
2000	1205472	458873	2677956	1441469	3529895	2171364	2038009	632063	1056328	51643
2001	1177801	456235	2736077	1476239	3451161	2116981	2009315	634245	1065428	47756
2002	1040497	434371	2692151	1513799	3249561	2005471	1688681	630054	563288	23990
2003	946401	407138	2611909	1457341	3358231	2076467	1752843	693473	553124	27178
2004	980279	432772	2545901	1459486	3424522	2174338	1738668	811312	468248	28228
2005	858480	365604	2523477	1464367	3461470	2159150	1839825	874072	463320	25264
2006	801736	341287	2541098	1515865	3563443	2234727	1953401	993482	453589	29289
2007	779726	339339	2533059	1532559	3556557	2175283	1973125	991356	510859	34006
2008	729284	321750	2465266	1542158	3504199	2125245	2065731	1081889	473007	24946

Sursa: <http://www.insse.ro>, AMG 1107

Unlike the previous analysis, when it was presented the active population on a five years age groups, and only for 1996 and 2008, the current analysis has as a main theme the active population on a ten years' age groups, for the first two groups, on the whole period between 1996 and 2008, taking into account the background of the occupancy person. When referring to the first age group, the one between 15-24 years, we can say that it has a low tendency, having between 1401102 people in 1996 and 729284 people in 2008. The balance is held by the rural active population, which varies between 61,34% in 1996 and 55,77% in 2008. On the entire period between 1996 and 2008, the 15-24 age group occupies the 4th position as an active population balance.

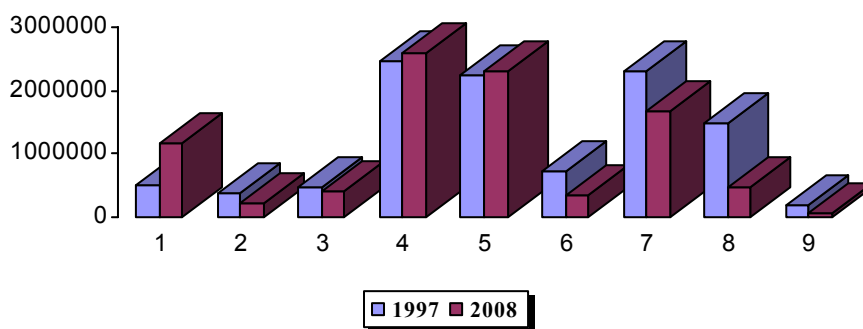
The second age group, between 25-34 years, has a relatively stable evolution, having its values between 2480654 active people in 1996 and 2465266 persons in 2008; the number of people registered in 2008 also represents the minimum value this group achieves during this period. The biggest part of the active population having between 25 and 34 years works in the city and occupies the 2nd position as a balance of the active population. The 35-49 age group has also a deduction tendency during the period. If in 1996 there were 3833587 people, at the end of 2008 there were 329388 less persons. It represents the highest balance age group of the active population, and the persons of this group work in the city. The third as a balance of the active population, the age group between 50 and 64 years work in a rural space, and between 1996 and 2008 has a relatively stable evolution.

The fifth age group, where are people over 65, has a descending evolution; registers a maximum of active persons. In 2001, which, after a year has a 47,14% deduction. If, in the first part of the analysis, the biggest part of the active population worked in the city, at the end of the period, the situation changed.

5. Analysis of working force occupancy according to its training level

The economic structure changing process lead to some essential changes regarding the active population according to its training level, shown in diagram no 5, that registers a growth of the people who have college education from 490139 in 1997 to 1178116 in 2008.

Diagram no 5 - Evolution of the employed population by educational level in Romania, during the period 1997-2008



Figures represent the x-axis: 1-university studies lasting, 2-university short (colleges), 3 post-secondary studies or master, 4-high school education, 5-professional studies or complementary classes, 6-10 class, 7-secondary education, 8-4 class, 9-no education.

Sursa: <http://www.insse.ro>, AMG 1101

There has been an increase, not that important, in both high-school and complementary education. Compared to 1997, the rate of employed people with high-school education increased in 2008 from 22,7% to 27,8%. Even if the rate of people with ten grade education, with junior high-school education, 4-grade or no education at all is decreasing and represents 24% of the employed people, as compared to the 37% which was the value in 1997.

6. Analysis of working force occupancy by professional status and sex

The transformations of the structure of the population by professional status have followed the same trends as employed population, as it is suggestively shown in diagram no. 6.



Figures represent the y-axis: 1 - employee, 2 - employers, 3 - self-employed, 4 - unpaid worker familiar, 5 - member of an agricultural society or a cooperative system

Sursa: <http://www.insse.ro>, AMG 1101

The number of paid employees decreased in 2008 compared to 1996 with 234845 individuals. If in 1996 paid employees represented 61,67% of the employed population, in 2008 they represented 68,7%. Both in 1996 and 2008 most of the employees were men⁴¹. Regarding the numbers of employers, it also recorded a decrease of 7202 individuals, employers representing 1,41% of the employed population, 76,97% being men. Important decreases are recorded among self-employed, with a rate of 18,945 of the employed population in 2008, compared to 20,215 in 1996, all the numbers representing male self-employed. The most important decrease is recorded among unpaid domestic workers, both in 1996 and in 2008, mostly women. In 1996, the unpaid domestic workers represented 16,255 of the employed population, 72,06% of whom were women, and in 2008 this category represented 10,89% of the employed population, only 26,17% of whom were men. Due to transformation processes in the Romanian economy, the number of people working in agriculture or the cooperative system decreased with a rate of 0,02% in 2008 compared to 0,55% in 1996, most of them being men.

7. Analysis of the occupancy of the working force by activity

The analysis of the employed population by activity is an important index concerning the developing level of any country. The rates of employed population in agriculture, industry and services reflects a certain pattern of economical development. The values recorded between 1996-2007 in the three sectors of activity in Romania are presented in table no. 3. In 1996 there were 3,320,300 employees in the primary sector, this number decreasing continuously is a consequence of the modernization and industrialization of the services sector, reaching in 2007 a total figure of 2,462,200 employees.

The industrial sector has a slower decrease of employees varying from 2,740,800 employees in 1996 to 1,958,300 at the end of 2007. An important part of the changing of the structure of employed force is due to the relocating of the work force between sectors, and also reflects the effects of the recession and the shocks in the sectors. For instance, the proportion of employees in electricity, gas or running water has increased, although the rate of this sectors was at the beginning high enough because the recession did not affect that much these sectors.

Table no. 3 - Employment in key sectors of the economy in România, during the period 1996-2007

- thousand persons-

Year	Primary sector ⁴²	Secondary sector ⁴³	Tertiary sector ⁴⁴
1996	3320,3	2740,8	3317,9
1997	3384,1	2449,6	3189
1998	3348,8	2316,9	3146,9
1999	3466,1	2054	2899,5
2000	3569,6	2004,1	3055,6
2001	3498	2016,6	3047,9
2002	3011	2122,5	3195,5
2003	2883,6	2059,4	3362,5
2004	2634,3	2051,5	3552,5
2005	2673,7	1973,6	374301
2006	2514,3	1969,4	3985,6
2007	2462,2	1958,3	4305,4

Sursa: <http://www.insse.ro>, FOM103A

⁴¹ Analysis based on the numbers from AMG 1101, <http://www.insse.ro>

⁴² The agricultural sector includes hunting, forestry, logging, fishing and fish breeding

⁴³ The industrial sector includes mining and quarrying, manufacturing, electricity production and gas and water and construction

⁴⁴ The service sector includes trade, hotels and restaurants, transport, storage and communications, financial activities, insurance and stock, community, social and personal.

The evolution of the tertiary sector is generally ascendant, even if during the first four years of the period in analysis, the number of employees in services decreases by 418,400 employees, counting at the end of 2008 987,900 employees more compared to 1996. The increase in the tertiary sector is more the effect of diminution than the result of a transfer of employees between the primary and the secondary sectors.

8. Conclusion

The integration of Romania in the European Union imposed the re-evaluation of actual performances in different fields and, not least, in the working market. Adopting the European values also allows a certain limitation of the necessary efforts. Developing certain programs or politics at a local, regional or national level must agree with the European strategy and also must take into account the specific national circumstances. The occupancy is vital in assuring social inclusion. The occupancy politics has to allow taking part in the occupancy by: promoting access to a quality occupancy for everyone able to work, fighting discrimination, preventing marginalization. Economic and social cohesion must be promoted by reducing regional differences by discussing occupancy in regions less developed and by sustaining the process of economic and social reshaping. A better occupancy of the human working force is an essential dimension of general goals of social cohesion of permanent reducing of the poorness level, insuring in fact, on equality among the population, of fighting discrimination and social cohesion of promoting inclusion and social equity. Work represents an important source of development and prosperity of a nation, therefore the growth of occupation rate of the labour force leads to economic growth, to an improvement in the economic structure.

As a result, following the occupation rate of the labour force: the downshift in incomes is reduced and I refer here to the aspect between the income of an unemployed person and an employed person; more jobs can appear, so that the poor people could benefit from the economic growth; poverty is reduced; an increased demand for certain products or services is noticed; new branches and sub-branches of the national economy are developed; cashing to the state budget is higher; a better standard of living is noticed; a stable social climate is created, family relations are more harmonious.

Regarding the *evolution of the employment on the labour market* (as per a study carried out by the Ministry of Labour in cooperation with INCSMPS and *Curs – the evolution of the employment on the labour market in Romania in the perspective of the year 2010*) a massive growth in the work places shall be noticed in areas such as: *commerce* (approx 8%), hotel industry (with 9%) and in *the real estates system* (of 6%). The growth of the number of jobs in these domains shall determine a personnel deficit qualified for these job vacancies. Subsequently, a better rapport between the educational system and the needs of the labour market will be requested. A decrease in the request of jobs shall be noticed in areas such as: agriculture, forestry and fishery due to their narrowed area of expansion.

Nobody contests the importance of the occupancy in assuring and the future growth of the performances of the national economy. Besides the level and the evolution of the incomes, of prices, of the quality, quantity and the diversity of the goods on the market, the economists and the politicians agree that the performances and the stability of an economic system must be appreciated through the actual state of the situation and of the perspectives of the occupancy of the working force, in an extremely dynamic techno-scientific and economical-financial context.

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Financial Crisis Effects on Romanian Economy

Magdalena DEDIU

magdadediu@yahoo.co.uk

"Dunarea de Jos" University of Galati

Abstract

The world economy is under recession. The strong financial turbulences, the collapses of the main stock exchanges with global extension, the global real estate crises and alimentary problems represent the signs of a fundamental correction within the global economy. To tackle the unprecedented economic storm, governments across the world have been spending trillions of dollars on economic stimulus packages to combat the recession, prompting a debate about how eventually to unwind this support. Removing the stimulus measures too soon could see economies slump again, while leaving them in place too long could risk stoking inflationary pressures. How world financial crisis manifest in Romania.

Keywords: financial crisis, effects, measures, external vulnerability, time to act, Romania

1. Introduction

European Union has found itself in the middle of global financial crisis. This situation unprecedented in the history of union does not leave indifferent those who has the authority to decide. The latest communications of the union recognise the global financial crisis has hit the EU hard. A squeeze on credit, falls in house prices and tumbling stock markets are all reinforcing a slump in consumer confidence, consumption and investment. Households are under real pressure. Businesses' order books are down. Sectors dependent on consumer credit – like private construction and the automobile industry – have seen their markets sharply deteriorate in many Member States.

2. European Union decided: "The time to act is now"

The latest economic forecasts painted a bleak picture of close to zero growth and risks of contraction for the EU economy in 2009, with unemployment rising by some 2.7 million in the next two years, on the assumption that no corrective action is taken. In the weeks since the forecasts came out, economic conditions have deteriorated further:

- ✚ financial market conditions remain fragile, and are likely to be tighter for longer than expected;
- ✚ confidence amongst households and firms has fallen much lower than expected;
- ✚ the slowdown has spread to emerging economies with negative effects for European exports.

The euro area and several Member States are already in recession. The risk is that this situation will worsen still further: that investment and consumer purchases will be put off, sparking a vicious cycle of falling demand, downsized business plans, reduced innovation, and job cuts. This could push the EU into a deep and longer-lasting recession: the economy contracting further next year, and unemployment could rise by several million people.

Quick and decisive action is needed to stop this downward spiral. Europe must use all the tools at its disposal. This means Member States and the Union working together, coordinating inside Europe and feeding into a larger global response. In tackling the financial crisis, the Union made sure that the EU level and national action worked together. This was successful in bringing stability at a time of immediate danger. Now Member States should again take advantage of the strengths of the EU – effective coordination, credible frameworks offered by the Stability and Growth Pact and the Lisbon Strategy, as well as the benefits of scale offered by the euro and the largest single market in the world. The interplay of national and EU action can help all Member States weather the worst of the global economic storms and emerge stronger from the crisis.

The euro, in particular, has proved to be an invaluable asset for the EU economies and an essential element of stability. Supported by the strong role played by the independent European Central Bank, the euro protects against destabilising exchange rate movements, which would have greatly complicated the national responses to the crisis.

A month ago, the Commission took the initiative to outline its plans for dealing with the financial crisis, addressing the difficulties of the wider economy and making Europe a key player in the global response to the financial crisis. In early November, the EU's Heads of State and Government agreed on the need for a coordinated response and asked the Commission to make proposals for discussion at their December meeting.

3. How bad it is. Estimates from European Union: August 2009 compared with July 2009. Industrial production up by 0.9% in euro area. Up by 0.6% in EU27

The estimates released by Eurostat, the Statistical Office of the European Communities emphasized that in August 2009 compared with July 2009, seasonally adjusted industrial production 1 grew by 0.9% in the euro area 2 (EA16) and by 0.6% in the EU27 2 . In July 3 production increased by 0.2% and 0.3% respectively. In August 2009 compared with August 2008, industrial production declined by 15.4% in the euro area and by 13.5% in the EU27 . Monthly comparison: in August 2009 compared with July 2009, production of durable consumer goods increased by 5.3% in the euro area and by 4.5% in the EU27 . Capital goods grew by 1.1% and 1.3% respectively. Intermediate goods rose by 0.5% in the euro area and by 0.6% in the EU27. Production of energy increased by 0.5% in the euro area and remained stable in the EU27. Non-durable consumer goods declined by 1.3% and 0.7% respectively. Among the Member States for which data are available, industrial production rose in eleven and fell in ten. The highest increases were registered in Italy (+7.0%), Portugal (+5.2%) and Slovenia (+4.9%), and the most significant falls in Ireland (-16.7%), Lithuania (-4.2%) and Luxembourg (-3.0%).

Annual comparison: in August 2009 compared with August 2008, production of non-durable consumer goods fell by 4.4% in the euro area and by 3.0% in the EU27 . Production of energy decreased by 6.0% and 6.2% respectively. Intermediate goods declined by 19.5% in the euro area and by 18.0% in the EU27. Durable consumer goods dropped by 20.6% and 16.4% respectively. Capital goods fell by 22.3% in the euro area and by 19.7% in the EU27 . Industrial production fell in all Member States for which data are available . The largest decreases were registered in Estonia (-27.9%), Luxembourg (-27.4%), Finland (-21.4%) and Sweden (-19.2%), and the smallest in Poland (-2.5%), Romania (-4.4%), the Netherlands (-6.4%) and Portugal (-6.6%). Total industry excluding construction. According to the Council Regulation 1165/98 Eurostat publishes national seasonally adjusted data if available. For the other Member States (Bulgaria, Greece, Spain, Cyprus and Luxembourg) Eurostat performs the adjustment. This means that different methodologies are used to make the seasonal adjustment of the national series.

The seasonally adjusted euro area and EU series are calculated by aggregating the working day adjusted series from individual Member States and performing an adjustment for seasonal effects on these series. Therefore the seasonally adjusted figures for total industry (excluding construction) is based directly on the working day adjusted series coming from the Member States and not on an aggregation of the seasonally adjusted indices from the Member States . The euro area and EU seasonally adjusted growth rates might differ from the weighted growth rates of the individual Member States (see Methodology of the industrial production index). This procedure also implies that the aggregation of the overall figures is not based on the published details (intermediate, capital, durable, non-durable goods, energy).

The euro area (EA16) includes Belgium, Germany, Ireland, Greece, Spain, France, Italy, Cyprus, Luxembourg, Malta, the Netherlands, Austria, Portugal, Slovenia, Slovakia and Finland. The EU27 includes Belgium (BE), Bulgaria (BG), the Czech Republic (CZ), Denmark (DK), Germany (DE), Estonia (EE), Ireland (IE), Greece (EL), Spain (ES), France (FR), Italy (IT), Cyprus (CY), Latvia (LV), Lithuania (LT), Luxembourg (LU), Hungary (HU), Malta (MT), the Netherlands (NL), Austria (AT), Poland (PL), Portugal (PT), Romania (RO), Slovenia (SI), Slovakia (SK), Finland (FI), Sweden (SE) and the United Kingdom (UK).

Industrial production - monthly variation

% change compared with previous month *

Total industry	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09
EA16	-0.5	-0.5	1.1	0.9	0.2	0.9
EU27	-0.9	-0.2	0.6	0.3	0.3	0.6
Belgium	0.9	-2.8	-0.5	0.9	0.6	:
Bulgaria	-2.4	-0.2	-1.4	-0.7	-0.6	-0.2
Czech Republic	1.1	0.1	-1.8	3.1	-2.3	4.0
Denmark	-2.4	-0.9	-1.6	-1.4	3.6	-2.8
Germany	0.0	-3.0	5.0	1.1	-1.0	1.5
Estonia	-2.7	-4.4	2.4	-1.0	1.8	-1.1
Ireland	5.1	-3.5	-3.6	7.3	7.9	-16.7
Greece	-2.2	-2.3	1.3	-1.2	1.1	0.7
Spain	-3.0	2.4	-2.7	0.5	-1.0	1.0
France	-1.3	-1.4	2.6	0.5	0.3	1.9
Italy	-4.5	1.5	0.1	-0.2	2.4	7.0
Cyprus	-2.9	-0.8	1.2	0.1	1.0	:
Latvia	2.8	2.5	-1.9	1.7	-1.2	2.6
Lithuania	-7.0	-1.2	7.3	1.5	3.5	-4.2
Luxembourg	-4.9	3.4	0.9	3.4	-6.0	-3.0**
Hungary	4.9	-5.1	2.5	2.0	-0.5	:
Malta	:	:	:	:	:	:
Netherlands	-1.6	-3.4	3.1	1.6	0.5	1.9
Austria	2.2	-2.7	-0.6	1.1	-0.7	:
Poland	2.1	1.0	-0.3	1.3	-0.7	0.5
Portugal	3.4	0.2	-1.2	-0.4	0.8	5.2
Romania	0.7	0.9	0.1	1.1	0.2	-0.3
Slovenia	-0.3	-4.2	2.9	0.4	-0.6	4.9
Slovakia	4.5	-1.2	-2.3	5.9	-0.4	:

Total industry	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09
Finland	-1.0	-2.9	-2.0	1.0	-3.0	-0.2
Sweden	-2.1	-2.0	-1.8	-1.9	-0.6	-2.6
United Kingdom	-0.3	0.0	-0.4	0.6	0.8	-2.6

Industrial production - annual variation
% change compared with same month of the previous year *

Total industry	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09
EA16	-19.4	-21.3	-17.6	-16.7	-15.9	-15.4
EU27	-18.1	-19.3	-16.6	-15.6	-14.6	-13.5
Belgium	-11.8	-20.6	-18.1	-14.0	-15.1	:
Bulgaria	-19.5	-18.8	-20.8	-19.4	-18.7	-15.9
Czech Republic	-26.1	-16.5	-18.9	-18.2	-4.6	-9.9
Denmark	-15.2	-14.7	-18.0	-16.7	-11.7	-15.0
Germany	-21.5	-24.1	-18.9	-18.8	-18.2	-18.0
Estonia	-29.1	-35.1	-29.8	-30.6	-28.2	-27.9
Ireland	-2.8	4.7	-8.2	0.7	6.2	-13.6
Greece	-7.0	-13.1	-8.0	-12.6	-10.5	-9.2
Spain	-24.2	-19.4	-20.5	-16.0	-18.0	-13.1
France	-15.9	-19.8	-13.6	-12.3	-12.5	-10.3
Italy	-24.1	-24.6	-20.0	-21.8	-17.9	-18.3
Cyprus	-7.7	-12.5	-12.8	-8.1	-8.9	:
Latvia	-21.4	-18.7	-19.2	-18.4	-17.6	-12.5
Lithuania	-20.4	-24.7	-18.5	-17.1	-14.7	-14.4
Luxembourg	-28.4	-25.5	-21.9	-15.3	-23.7	-27.4**
Hungary	-19.6	-25.2	-22.1	-18.8	-19.3	:
Malta	:	:	:	:	:	:
Netherlands	-13.6	-18.1	-10.5	-10.0	-6.8	-6.4
Austria	-12.7	-15.7	-16.2	-14.4	-13.7	:
Poland	-9.8	-6.6	-5.1	-4.5	-4.4	-2.5
Portugal	-6.8	-10.2	-7.8	-11.2	-9.1	-6.6
Romania	-12.2	-8.1	-8.3	-6.4	-4.5	-4.4
Slovenia	-19.5	-26.0	-21.0	-22.5	-20.4	-18.4
Slovakia	-16.8	-22.8	-23.0	-18.4	-21.7	:
Finland	-20.9	-24.0	-25.6	-21.1	-24.5	-21.4
Sweden	-19.5	-21.2	-21.5	-20.1	-19.0	-19.2
United Kingdom	-12.6	-12.1	-12.3	-11.3	-11.0	-7.6

4. Financial crisis in Romania

In the middle of 2008, the financial crisis which broke out in international markets still seemed rather remote to most CEE markets, Romania included. Although its influence upon development of this part of Europe was not infrequently commented as a driver that might only exert a slight impact on dynamic growth of local economies, no-one would have expected so severe consequences to appear, though.

Over as short a period as a few weeks, capital involved in investments, stock exchanges and inter-bank capital started dwindling rapidly, adversely affecting the entire region's economy. For instance, over as short a period as two months, the Bucharest stock-exchange index depreciated by circa 40%. The crisis will no doubt affect the Romanian housing market as well, both on its buyer and developer side, which will be reflected in dropping turnover rates and decreasing activity of players on both sides of the marketplace - i.e. the demand and the supply.

A significant decrease could have been observed in speculative and investment purchases in the Bucharest market, which has materially translated into the number of transactions entered into in the primary market. In most residential projects, the sales have decelerated considerably, and the progressing financial crisis may seriously contribute to deepened slowdown through a series of financial mechanisms.

One material factor being a direct consequence of the crisis is availability and development of mortgage-secured loans market. Development of this particular market was clearly decelerating in the last quarter and will certainly not achieve in the nearest period dynamism close to the one observable in late 2007/early 2008.

One reason for this phenomenon is increasing cost of credit, as combined with large fluctuations in the foreign currencies market.. The reference rate of the Central Bank of Romania increased within as short as three quarters of a year to 10.25%, up from 7.5%, thus increasing the cost of credits or loans drawn by residential unit buyers.

Foreign-currency lending has grown dearer also due to depreciation of the domestic currency against foreign currencies, to name e.g. the euro, and albeit the present-date RON/EUR rates are not materially different from those of the beginning of 2008 - yet, in June 2007, EUR 1.00 could still be bought at RON 3.13, whilst the present-day rate is RON 3.74/EUR 1.00 (as at 28th Oct. 2008). For a household repaying a loan at e.g. EUR 600 per month, this may stand for the instalment growing up to RON 366 on a month's scale, without the interest rate growth taken into account.

Viewed against a probably decreased growth trend in salaries, as a consequence of tough economic conditions under which several enterprises and businesses will be doomed to operate, it can be expected that availability of cheap housing loan facilities, being so important to development of residential markets, will to a material extent determine the strength and scale of demand in the local residential market. Postponing by prospective purchasers their decision to buy, based on their expectations to obtain, in a not-quite-distant future, a more attractive offer or, simply ensuing from no own funds available - as coupled with the required creditworthiness - can be reflected in part of the demand relocating toward the rental market, which may cause increased profitability of such investments over the months to follow.

Same as with residential unit buyers, also developers need capital which they acquire from banks or other institutions associated with investment/financial operations, to implement their investment intents. Similarly as for the demand side, problems with acquisition of investment funding means, as combined with a more cautious evaluation of risk(s) on the part of lending banks, have caused that the cost of credit became very high for developers, thus materially increasing the cost of financial expenses of projects under construction. It is worth emphasising that a significant portion of housing investment projects in Romania is (co) funded by numerous capital groups originating from countries overwhelmed, to a lesser or greater extent, with the financial crisis, which may also get reflected in the scale of developers' activity and number of newly-commenced residential projects in the near future.

Given such a situation, the best prepared ones seem to be those developers that have acquired lands much earlier on at much lower prices and will at present be inclined to quit their rather

high margins. Those whose financial assumptions turned out too optimistic and those whose financial standing will not enable them to quietly survive the present economic slowdown may in a rather close future struggle with liquidity-related problems.

What's next in the Romanian Economy? The Romanian economy, as is the case with the region as a whole, was starting to experience the crisis's effects, but there was seemingly no reason to panic. It may be certain, though, that the present outflow of capital, whose inflow had in the past period been one of the most essential factors determining economic growth in Romania, will affect the pace of development and the living standard of local populace might lower accordingly; however, stability of the financial market seems quite good all the same - unless something occurs in the market in question which will trigger nervous behaviours of local population or banking institutions.

Despite any appearances, a positive driver for the local housing market is the fact that Romania is still one of the least developed EU Member States with regards to mortgage-backed loans market. Indebtedness of local people is definitely lower than in other countries of the Central/Eastern Europe region, and this scarcity is now one of the assets that will allow the residential market to avoid a U.S.-like severe shock. On the other hand, the banking system's financial stability will require huge amount of control on the part of the local banking supervisory authorities. Unless the local financial system and the lending market do not get stabilised, the demographic-economic foundations of residential markets of Romania's largest cities can remain continually indicative of a considerable developmental potential

5. Intervention of the European Commission and the International Monetary Fund in Romania

In a coordination meeting in Brussels of the European Banking Group held on 19 May 2009, the parent banks of the nine largest foreign banks incorporated in Romania reaffirmed the commitments to take action needed to support their subsidiaries in the country. These commitments, along with the balance of payments support package, will help Romania's banking system to weather the current crisis better, restore investor confidence, and return the economy to a sustainable growth path.

In light of the adverse effects of the global financial crisis on the economic and financial situation in Romania, the Romanian authorities requested balance of payments support from the International Monetary Fund (IMF) and the EU. The World Bank, the EBRD, the EIB, the IFC and MIGA are providing financial support, including under the Joint IFI Action Plan. The success of the macroeconomic reform program and the balance of payments sustainability also depends significantly on the continued involvement of foreign banks in Romania. On 26 March in Vienna, Austria, the parent banks of the nine largest foreign banks incorporated in Romania (Erste Group Bank, Raiffeisen International, Eurobank EFG, National Bank of Greece, Unicredit Group, Société Generale, Alpha Bank, Volksbank, Piraeus Bank) gave a general declaration on maintaining their overall exposure to the country and on increasing the capital of their subsidiaries, as needed.

Since the meeting in Vienna, the National Bank of Romania has conducted stress tests. The results have been discussed with the banks and the outcome confirms that they are well capitalised and have high liquidity buffers. As a result of the discussions held on May 19 in Brussels, the nine parent banks agreed to submit specific bilateral commitment letters in the coming weeks to fulfil the objectives agreed upon in Vienna. These commitments, including a precautionary increase in the minimum capital adequacy ratio for each subsidiary from 8 to 10% for the duration of the programme, along with the international financial support package will help Romania's banking system to weather the current crisis better, support investor confidence, and guide the economy to a sustainable long term growth path.

The European Banking Group Coordination Meeting for Romania was jointly chaired by the EC and the IMF. The World Bank Group, the EBRD, the EIB, the National Bank of Romania (NBR), the home country banking supervisors and ministries of finance (Austria, France, Greece and Italy) and the European Central Bank also attended the meeting.

6. The proposals of the European Union on the Economic Recovery Plan

The European Economic Recovery Plan is the Commission's response to the current economic situation. Given the scale of the crisis we are facing, the EU needs a co-ordinated approach, big enough and ambitious enough to restore consumer and business confidence. It needs to bring together all the policy levers available at EU and national level. Most of the economic policy levers, and in particular those which can stimulate consumer demand in the short term, are in the hands of the Member States. Member States have very different starting points in terms of fiscal room for manoeuvre. But that makes effective coordination all the more important.

All Member States will need to take action to deal with the crisis. Properly coordinated, national efforts can target different goals in parallel. They can cushion the blow of recession in the short term. But they can also promote the structural reforms needed to help the EU emerge stronger from the crisis, without undermining longer term fiscal sustainability. For this reason, this Recovery Plan puts particular emphasis on innovation and greening of EU investment. The EU level can act as a catalyst for such "smart action", combining EU policies and funds to help Member States maintain or pull forward investments which will create jobs, boost demand, and strengthen Europe's capacity to benefit from globalisation.

The strategic aims of the Recovery Plan are to:

- ✚ Swiftly stimulate demand and boost consumer confidence;
- ✚ Lessen the human cost of the economic downturn and its impact on the most vulnerable. Many workers and their families are or will be hit by the crisis. Action can be taken to help stem the loss of jobs; and then to help people return rapidly to the labour market, rather than face long-term unemployment;
- ✚ Help Europe to prepare to take advantage when growth returns so that the European economy is in tune with the demands of competitiveness and the needs of the future, as outlined in the Lisbon Strategy for Growth and Jobs. That means pursuing the necessary structural reforms, supporting innovation, and building a knowledge economy;
- ✚ Speed up the shift towards a low carbon economy. This will leave Europe well placed to apply its strategy for limiting climate change and promoting energy security: a strategy which will encourage new technologies, create new 'green-collar' jobs and open up new opportunities in fast growing world markets, will keep energy bills for citizens and businesses in check, and will reduce Europe's dependence on foreign energy.

In pursuing these aims, the European Economic Recovery Plan is designed to:

- ✚ Exploit synergies and avoid negative spill-over effects through co-ordinated action;
- ✚ Draw on all available policy levers, fiscal policies, structural and financial market reforms and external action;
- ✚ Ensure full coherence between immediate actions and the EU's medium- to longer term objectives;
- ✚ Take full account of the global nature of the problem and shape the EU's contribution to international responses.

This European Economic Recovery Plan proposes a counter-cyclical macro-economic response to the crisis in the form of an ambitious set of actions to support the real economy. The aim is to avoid a deep recession.

The Plan is anchored in the Stability and Growth Pact and the Lisbon Strategy for Growth and Jobs. It consists of:

- ✚ An immediate budgetary impulse amounting to € 200 bn (1.5% of EU GDP), made up of a budgetary expansion by Member States of € 170 bn (around 1.2% of EU GDP), and EU funding in support of immediate actions of the order of € 30 bn (around 0.3 % of EU GDP);
- ✚ And a number of priority actions, grounded in the Lisbon Strategy, and designed at the same time to adapt our economies to long-term challenges, continuing to implement structural reforms aimed at raising potential growth.

a) Supporting the real economy and boosting confidence

As the economies of all Member States are highly integrated, sharing one single market and many common policies, any response must combine monetary and credit aspects, budgetary policy, and actions in the Lisbon strategy for growth and jobs.

b) Monetary and credit conditions.

b1) The role of the European Central Bank and other central banks

In the current juncture, monetary policy has a crucial role to play. In the light of reduced inflationary expectation over the medium-term, the European Central Bank (ECB) for the euro area, along with other EU central banks, has already cut interest rates. The ECB has signalled that there is scope for further reductions. The ECB has already demonstrated its importance in stabilising markets by lending to banks and contributing to liquidity.

b2) The role of banks

At the root of the problems in the real economy lies the instability in the financial markets. A reliable and efficient financial sector is a pre-requisite for a healthy, growing economy. Stabilising the banking system is therefore the first step towards halting the downturn and promoting a swift and sustainable recovery. The EU must maintain this common drive to rebuild stability and confidence in the still-fragile financial sector and create the conditions for a sustained economic recovery. The crisis has shown risks in the current governance of financial markets which have or could become real and systemic in times of serious turbulence. The pace of reform will be maintained in the coming months to restore stability and protect the interests of European citizens and business.

But it is now crucial that banks resume their normal role of providing liquidity and supporting investment in the real economy. Member States should use the major financial support provided to the banking sector to encourage a return to normal lending activities and to ensure that central interest rate cuts are passed on to borrowers. The Commission will continue to monitor the economic and competition impacts of measures taken to support the banking sector.

b3) The role of the European Investment Bank and the European Bank for Reconstruction and Development

The current crisis requires reinforced interventions from the European Investment Bank (EIB) group. The EIB will increase its yearly interventions in the EU by some €15 billion for the next two years. As this increased activity will take the form of loans, equity, guarantees and risk-sharing financing, it will also generate a positive leverage of additional investment from private sources. In total, this package proposed by EIB will help mobilise complementary private resources to support additional investments over the next two years. To enable the EIB to increase its financing activities, Member States should decide before the end of the year to incorporate EIB's reserves to reinforce its capital base in the order of € 60 bn, which will provide a highly visible political signal to the markets and which will significantly increase the Bank's lending capacity. The European Bank for Reconstruction and Development (EBRD) is also expected to add €500 million per year to its present level of financing in the new Member States.

c) Budgetary Policy

Restoring confidence will depend on Europe's ability to boost demand by making use of budgetary policy within the flexibility offered by the revised Stability and Growth Pact. In the current circumstances, budgetary policy has an even more important role to play in stabilising economies and sustaining demand.

Only through a significant stimulus package can Europe counter the expected downward trend in demand, with its negative knock-on effects on investments and employment. Therefore, the Commission proposes that Member States agree a co-ordinated budgetary stimulus package which should be timely, targeted and temporary, to be implemented immediately. In the context of national budgets for 2009, this co-ordinated budgetary impulse should be € 170 bn, which represents 1.2% of the Union's GDP, in order to produce a substantive positive and rapid impact on the European economy and on employment, in addition to the role of the automatic stabilisers. Expenditures and/or reductions in taxation included in the budgetary impulse should be consistent with the flexibility offered by the Stability and Growth Pact and reinforce the structural reforms of the Lisbon Strategy. This budgetary stimulus should be temporary. Member States should commit to reverse the budgetary deterioration and return to the aims set out in the medium term objectives.

To maximise its impact, the budgetary stimulus should take account of the starting positions of each Member State. It is clear that not all Member States are in the same position. Those that took advantage of the good times to achieve more sustainable public finance positions and improve their competitive positions have more room for manoeuvre now. For those Member States, in particular outside the euro area, which are facing significant external and internal imbalances, budgetary policy should

7. After one year, EU mulls crisis exit strategy, Economic Recovery Plan delays its start

The EU laid down a plan for a coordinated exit strategy from expansionary stimulus packages that have propped up Europe's failing economies, but did not agree a date for its implementation. The main principles of the agreement consist of four pillars which would, according to Joaquin Almunia, EU commissioner for economic and monetary affairs, be in tune with the framework agreed at last week's G20 summit in Pittsburgh.

The EU's exit strategy would broadly consist of a "timely" withdrawal from stimulus, structural and fiscal consolidation at or above 0.5% a year, labour market reforms, boosting long term investment and strengthening national budgetary frameworks, Swedish Finance Minister Anders Borg said yesterday at an informal meeting of EU finance ministers in Gothenburg. The timing of the exit strategy's implementation is, according to Almunia and Borg, at the discretion of each national government. Some countries such as Spain, the UK and Germany have already begun cutting public spending, which some observers argue is completely out of step with a coordinated exit strategy. However, Borg said, the agreements reached were in line with those aired by UK Finance Minister Alistair Darling during yesterday's discussions.

8. Exit by 2011 still uncertain

The European Commission is seeking to set a date for exit strategies by 2011 provided its latest forecast shows a return to positive growth. "Our compass is price stability in the medium term," Almunia said. The current indicator for potential growth is at around 1%, but will be defined by new information provided by the member states for the Commission's 2010-2011 forecast next month, Almunia stressed. According to the commissioner, the recovery will be detectable when growth estimates are in line with potential growth expectations without the help of stimulus measures but fuelled by normal drivers, like demand from consumption and investment.

Onlookers are sceptical about how this scenario will play out given some countries seem to be pursuing their own economic agenda. Borg said there was "no disagreement or vigorous debate on the issue of timing," and said leaders had conceived "a broad common language". Discussions due to take place in December would clarify the details and timing of exit strategies, Eurogroup chair Jean-Claude Juncker said.

9. Employment key structural reform

Almunia said he had also asked ministers to ensure that their next steps would synchronise structural reforms and fiscal policy. Under structural reforms, he stressed that the circumstances for gaining employment in EU countries must be improved. The improvement of training and job search facilities and a mechanism to avoid pre-retirement schemes and limits on the retirement age were two measures mentioned by the Commissioner. "We must increase the possibilities of keeping the over-55s in work," he added.

10. Nine more countries in breach of Stability and Growth Pact

Twenty of the 27 EU countries - including 13 in the euro zone - are now operating above the 3% eurozone deficit threshold set by the Stability and Growth Pact. The pact, conceived under the 1992 Maastricht Treaty, allows the Commission and the Council to monitor the fiscal health of member states that have adopted the euro. Almunia insisted the pact was very much intact and its credibility is only in danger if it is not implemented.

"The pact has to be applied flexibly," stressing that in times of sluggish growth "one can be less stringent in complying to budgetary terms of the growth and stability pact". Under the pact's terms, eleven excessive deficit procedures are currently running against member states. Almunia confirmed that the Commission would discuss reports regarding nine more countries that are in breach of the pact's deficit ceiling.

Germany, which in July forecast deficits would climb to about 6% of GDP in 2010, has earmarked a record 86 billion euros in net new borrowing next year. The EU will initiate disciplinary proceedings against the country in October, an EU diplomat said on Thursday. The French government is also preparing to boost its deficit to 8.5% in 2010 (against 8.2% this year) and to postpone a balanced budget to 2015. Regional elections next year render it extremely unlikely that France will abandon extraordinary measures to ensure a return to economic growth by 2011.

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Investor's Perception of Value Creation in Environmental Strategies: The Impact of Past Environmental Performance on Future Stock Market Returns

Claudia Nicoleta BORSAN

borsanclaudia@yahoo.com
„Spiru Haret” University, Constanta

Abstract

In this paper we test whether investors incorporate into stock market prices the future increase or decrease in firm value due to corporate strategies that cause better or worse firm environmental performance. We report strong evidence that low-polluter companies have substantial abnormal positive returns in the subsequent years after the environmental information was publicized while in the same period of time, high-polluter companies have no abnormal returns (positive or negative). On the contrary, we find exactly the opposite results when we analyze stock market behavior the exact same day the environmental information was publicly released. This is, for this exact publication date high polluter companies have significant negative abnormal returns while low-polluter companies have abnormal returns that are not statistically different than zero. Overall, our results are consistent with a world in which investors have been slow to properly evaluate future increases in firm value associated with current good firm environmental performance while on the other hand investors have correctly discounted the future negative financial effects corresponding to high-polluter companies.

Key words: Stock Market Performance; Environmental Performance; Toxic releases

JEL Code: G14 ,G30

1. Introduction

Stock market miswriting of individual corporate strategies is subject of relentless debate. Executives of public companies often complain about investor's pressure to focus inefficiently on short term financial results while academics have failed to provide a consistent corpus of evidence supporting stock market myopia. In this paper we investigate thoroughly stock market appraisal of one type of firm strategy of increasing relevance: Firm environmental performance. We look at stock market performance of low-polluter and high-polluter companies both when the environmental information becomes public and up to seven years later to evaluate whether stock market did properly price "green" and "black" strategies..

Contradictory results in prior research suggest that investors have an ambivalent stance towards environmental firm performance. They clearly value higher financial performance, but it is unclear whether they regard environmental activities as conducive to such performance. In fact, prior research has failed to show that environmental proactivity of firms is valued by investors unless it reduces rather clear risks of environmental fines and sanctions. This is somehow striking taking into account that other research strongly suggests that environmental and financial performance are positively linked, particularly for firms that are proactive . Our

current research therefore takes a closer look at this phenomenon and particularly attempts to expose whether there is indeed a pattern in terms of investors being out rightly negatively disposed towards current environmental firm activities, but still bid up these firm shares in later periods when the (supposedly) positive effects of these activities translate into unexpected financial gains. In other words, we examine whether shareholders do not clearly understand the positive or negative value implications of environmental policies.

For this purpose, we apply standard financial techniques to identify the existence (or lack of) of positive unexpected abnormal returns for those companies that were characterized in the past by superior firm environmental performance. If investors did not understand in the past the positive value implications of good firm environmental performance, we should be able to identify positive unexpected excess returns, as indeed we find below in our empirical analysis. In a similar manner, if investors do not fully incorporate into stock market prices future negative results due to particularly poor environmental performance; we should find negative abnormal returns in those companies labeled in the past as environmental laggards. However, in our results below we fail to find significant negative abnormal returns for this type of companies. This could indicate that investors have no problem in quickly recognizing (and pricing accordingly) the negative value implications attributed to low firm environmental performance.

The contribution of this paper to the Environmental Management Literature is therefore two-fold: On one hand we add further evidence about the positive link between firm financial performance and good environmental practices. Of greater significance and , we show how investor's perception about the effect of environmental performance on firm value is asymmetric with respect to the consideration of negative and positive effects. Investors correctly anticipate future negative effects due to current poor environmental performance but fail to fully incorporate into current market prices future value creation corresponding to those companies with outstanding pro-environmental policies. In this regard we are also contributing to a wider management literature in the stock market evaluation of business strategies.

The rest of the paper is structured as follows: Section II briefly goes over the abundant empirical literature about the linkage between environmental and financial firm performance. Section III provides theoretical reasons to explain the asymmetry in investor's perceptions. Section IV details the data construction process and Section V discusses our empirical results. Section VI carries out some empirical robustness test while Section VII concludes with some implications for future research.

2. Analytical Framework

It seems that a consensus is being built in the environmental management literature that pro-environmental strategies not only are valuable to society due to the positive externalities but that they also could contribute to the creation of individual firm value through a real improvement of a firm competitive position. The sources of this creation of value are various. Porter and Van der Linde suggest that pollution reduction is often associated with overall productive efficiency by reducing required inputs and productively using by-products that were formerly wasted. On its turn, the resource based view approaches to environmental proactivity indicate that competitive advantages may be achieved in stakeholder integration and high-order learning and by developing unique capabilities related to their environmental efforts . Other sources of creation of value are compliance with regulatory pressures and increase in corporate social reputation.

However, not all pro-environmental activity seems to increase firm value. In particular just "end of the pipe" mechanisms that reduce pollution without any major reorganization or changes in the productive processes has been associated with destruction of firm value through an increase in production costs not accompanied by any productivity increase.

For public companies, all creation or destruction of firm value through any pro-environment firm initiative should naturally translate in an increase or decrease of stock market prices. This variation in the stock market value should occur as soon as investors realize the future implications of any firm environmental strategy. In this regard, some prominent institutions like the United Nations and the US Environmental Protection Agency, EPA, have argued that investors could have been particularly slow when incorporating into stock market prices the positive effects of the adoption of 'Green' strategies . In the next paragraphs we discuss different theoretical reasons that could explain this potential mistrust of shareholders when it comes to appraise environmental strategies.

To start with, investors may not fully understand the value implications of Green strategies because these are complex. Russo & Fouts argue that the value creation of Green strategies come exclusively by redesigning the whole enterprise in an environmentally friendly fashion, and by this creating rather difficult to match capabilities that may provide long lasting cost advantages vis-à-vis less environmentally pro-active competitors. This new environmental design of a given company may be hard to comprehend taking into account that investors might not be totally familiar with the details of new technologies and production operations. In sum, shareholders might not properly price Green strategies due to a standard imperfect information problem.

Yet, company managers have the knowledge and expertise to understand the potentialities of Green strategies when it comes to value creation. Melnyk, Sroufe, & Calantone (2007), for instance, report that managers indeed perceive benefits well beyond pollution control when implementing a formal EMS. If the problem was mere lack of shareholder information, managers could easily help shareholders to fill this information gap or alternatively investors could trust managerial decisions in exactly the same manner they do with other complex business strategies. For this reason, apart of a lack of information, we need additional explanatory elements to understand why managers could not effectively communicate the pros of environmental strategies to stock market investors and in this manner avoid any delay when incorporating in stock market prices future increases in profitability due to Green investments. In this same direction Filbeck & Gorman (2008) state that the case for looking upon environmental cost drivers, as opposed to treating them purely as potential liabilities has not been effectively communicated to investors.

Two phenomena could induce the existence of communication problems when defending the value creation properties of environmental strategies. First, if environmental initiatives are strategic in nature, too much disclosure could endanger the success of the measures. If the future value creation of green strategies depends on the creation of unique capabilities versus less pro-environmental active competitors, full disclosure of this potential could lead to imitation with the consequent detriment to the eventual competitive advantages achieved by pro-environmental strategies. As a result, managers are constrained in the amount of information they can reveal and therefore investors have problems to fully comprehend the value implications coming from the implementation of green strategies. Second, the traditional agency problem between management and shareholders could diminish shareholders trust in managerial arguments when defending value creation properties of green strategies. Investors are well aware that green strategies could be object of desire of other firm stakeholders less concerned with shareholder's wealth: Employees may prefer to work for "green" firms,

Greenpeace and other non-governmental organizations threaten polluting firms with potentially damaging public relations campaigns, and government regulators increasingly tighten the noose around the executives' neck by assigning personal liability for environmental violations. Hence, investors know that executives could feel more immediately challenged and more personally threatened by reactions to negative environmental performance records or environmental accidents like the Bhopal disaster or the Exxon Valdez Oil Spill. When managers subsequently present proposals for environmental efforts (which likely resulted from these managers better understanding of the potentials of environmental management), shareholders may mistakenly discount the validity of these proposals based on their still prevalent fear that the beneficiary of such activities would primarily be stakeholders other than the shareholders themselves (but potentially including the managers).

In sum, we have seen in the preceding paragraphs how some pro-environmental initiatives could enlarge shareholder's wealth through an increase in future firm value. Also, we have argued why investors could be particularly slow in incorporating the value creation implications of green strategies into stock market prices. If this is the case, when the value creation potentialities of past pro-environmental initiatives become a reality, they should cause unexpected superior financial results. This good financial news should come as a surprise to investors and therefore we should observe the existence of positive unexpected stock market returns in those companies that some time in the past undertook pro-environmental initiatives. Thus, the following hypothesis should hold:

Hypothesis 1: Firms that in the past stood out by important pro-environmental initiatives experience in the future abnormal positive stock market returns.

Even if investors might have been slow in realizing the positive value implications of green strategies, there is a considerable amount of evidence that shows that investors have quickly understood the downside implications of firm strategies that totally neglect environmental issues. These include the costs involved in future compliance with environmental regulations, and the risks of non-compliance in terms of environmental fines. These costs and risks of extremely poor environmental performance seem easier to explain in an objective manner since public legislation and regulation belongs by its nature to the public domain. Therefore investors should be able to perfectly understand the negative value implications of poor environmental performance and adjust stock market prices as soon as this type of information is released to the public. In this regard, Muoghalu, Robinson, & Glascock, find a strong negative market reaction to lawsuits filed against polluters. Hamilton likewise finds negative market returns for firms included in the first release of the "toxic release inventory" data in June, 1989. These effects were stronger, the more exposure (different types of controlled chemicals) a firm had. In similar studies with the TRI data, Khanna, Quimio and Bojilova and Joshi, Khanna and Sidique (2005) report strong abnormal negative returns for polluters (see above) while Lanoie, Laplante, & Roy find negative market reactions to firms that were named repeatedly on a Canadian government listing of polluters. Therefore, it seems that the stock market incorporates negatively in current stock prices any news regarding particularly poor environmental performers. If consistently with the findings of previous literature we hypothesize that the stock market properly discounts the effect of future negative implications due to bad environmental performance, then past bad environmental performance should not have any effect (negative or positive) in future stock market prices and it has to be the case that:

Hypothesis 2: Firms that in the past stood out by its poor environmental performance do not experience in the future negative (or positive) abnormal stock market returns while they indeed experience contemporaneous negative abnormal returns the day the environmental information is released to the investors.

The current TRI toxic chemical list contains 582 individually listed chemicals in 30 different categories.

Before turning to the empirical section, we want to stress a crucial difference between our approach and the one used in the majority of the literature that relates to the study of stock market returns instead of other measures of absolute firm stock market value, like Tobin's q . Basically we are interested in the speed of investor's perception about future value implications of firm environmental performance. This phenomenon can be studied by observing the influence of past firm environmental performance on future stock market returns but not investigating the influence on total stock market capitalization. In other words, if investors are fast in incorporating in stock market prices the future value effects of good firm environmental performance, past good firm environmental performance that becomes public information at time t should be associated with superior total absolute market value in all subsequent periods: $t, t+1, t+2, t+3, \dots$ since market value at $t+i$ includes all previous changes in stock market prices. However the effect on stock market returns of the publicity of the same type of firm environmental performance at time t should have a positive effect at t and a zero effect in $t+1, t+2, t+3, \dots$; since stock market returns at time $t+i$ should not incorporate the effect of any information that become public at time t as long as investors fully understood in the past the value implications of this disclosure of environmental information. The existence of this zero-effect of past environmental performance in future periods is what we investigate empirically in the next sections.

3. Data and variable construction

Our primary source of firm environmental data is the US Environmental Protection Agency (EPA). Firms with manufacturing activities are required by the EPA to report emissions of a considerable number of chemical toxics³ into the air, the water or the ground, once they exceed certain minimum thresholds. In the Toxic Release Inventory (TRI), the EPA collects data about type and amount of toxic waste emission by production plant in the US. The Investor Responsibility Research Center (IRRC) aggregates these TRI plant level filings to the firm level and this firm aggregated IRRC dataset is what we use to construct our measure of firm environmental performance. We opt to restrict our sample to those firms that report activity in manufacturing industries – SIC codes between 2000 and 3999 – since the EPA requirements of information disclosure is stricter for manufacturing plants. We also believe that waste emissions are better measures of firm environmental performance in manufacturing companies as compared to more service oriented corporations.

We construct our measure of firm environmental performance as the total amount of toxic chemical waste produced by a firm in a given year normalized by total firm sales. This magnitude is a rather raw measure of (negative) firm environmental performance, whose most important drawback is that simply adding pounds of toxic materials will implicitly assign equal weights to chemicals with potentially huge differences in toxicity. While we are aware of this important flaw, three reasons compel us to use this measure of firm environmental performance. One is data availability, as the IRRC provides total toxic chemical waste at the firm level without disaggregating it into its different chemical components. Furthermore, this magnitude has been used in most prior studies on Corporate Environmental Management with the sole exception of Joshi, Kanna & Sidique (2008) as a firm environmental performance measure and using it we provide comparability with such previous studies. Finally, we believe that total toxic waste information may be more important for analysts than weighted toxicity indexes since it is directly available from the US EPA reports.

For the analysis of this paper we match the IRRC data to stock price information from the Center for Research in Security Prices (CRSP). The matching was done using the CUSIP company identifier.

4. Methodology and results

If our environmental performance measure matters for firm performance and investors perfectly understand this relation, its effect should be fully incorporated in the stock price as soon as this environmental information becomes public. Accordingly, as waste emissions in 2005 are made public by the EPA in May 2007, the fact of belonging either to the Green or Black Portfolio should only have any effect on stock market returns in May 2007. The effect on June 2007 or later returns, however, should be zero since any increase or decrease in firm market value should have been realized previously and this does not affect stock returns from year 2007 on. In this section we examine whether the subsequent returns of Green and Black Portfolios conform to this hypothesis.

For this purpose we construct an equally-weighted portfolio and a value-weighted portfolio for each Green and Black Portfolios. We construct the value-weighted portfolio whose weights are firm market value at the end of 2007. This is equivalent to annual average returns of react positively to news about good firm environmental performance. Overall provides preliminary and non-rigorous evidence that past good firm environmental performance is associated with better future stock performance and therefore investors do not fully incorporate in current stock market prices the value implications of environmentally friendlier strategies. 22.02% to the Green Portfolio versus 11.31% for the Black Portfolio. Thus, we note that apparently green strategies lead to higher returns in the long run. Yet, if we did not take into account the years previous to the release of information, 2006 and 2007, these differences would be even more striking. In fact, 2006 is the only year in which the Black Portfolio outperforms the Green Portfolio. This fact is consistent with a world in which investors do not

This disparity between Green and Black Portfolios returns can alternatively be explained by a variety of different reasons since previous research in the financial literature field has identified several characteristics that explain differences in stock market returns. Thus, it could be the case that structural differences in portfolio characteristics could explain at least part of the disparity between Green and Black Portfolio annual returns. In what follows we use standard techniques in the financial literature to properly identify the potential existence of abnormal returns in both the stand-alone Green and Black portfolios as well as in a zero investment portfolio composed by buying the Green Portfolio and selling short the Black Portfolio.

Next we use to test if the differences between portfolios can be explained by intrinsic differences in its characteristics and to estimate the potential existence of abnormal returns both in the Green and in the Black Portfolio. The EPA released to the public the 2005 waste information the 20th of May of 2007 and therefore we start looking at the behavior of the Green and Black portfolio in June 2007, the month after this information was known to investors. In Table 3 we display the descriptive statistics of Green and Black portfolio monthly stock market returns as well as the monthly stock market returns of the four factors of Carhart plus the monthly risk free rate where the monthly returns of the four factors have been downloaded from the Center for Research in Security Prices, CRSP. A fast look at Table 3 denotes that the average stock return for both Green Portfolios and for the Black value weighted Portfolio were larger than the average return on the market-that was 63 basis points a month or 7.56 percent a year. However, we will see below that only the Green Portfolios achieve significant positive

abnormal returns once we control for several portfolio characteristics using Carhart four-factor model.

With this monthly returns data we estimate equation for the monthly stock returns of three distinct portfolios: Green portfolio, Black Portfolio and the portfolio composed by the difference between both. The OLS regression of for each of these three different portfolios using value weighted and equally weighted specifications is displayed .

The results of both specifications are displayed . In none of the two specifications any Green Portfolio achieves abnormal returns statistically different than zero the day the 2005 TRI data went public. On the contrary, both the Equally-Weighted and the Value-Weighted Portfolio have negative and statistically significant different than zero abnormal returns using the standard market model methodology. These results are in line with the negative abnormal returns found for polluters in the prior studies of Hamilton , Khanna et alia and Joshi et alia and give evidence in support of Hypothesis 2 while absence of statistically significant returns for the Green Portfolios goes in line with Klassen and McLaughlin that report a quite small stock market effect of environmental awards in dirty industries.

The results using model are qualitatively the same with the sole exception that now the Black Value weighted Portfolio has not negative abnormal returns statistically different than zero.

5. Robustness tests

In the former section we have given empirical evidence in support of both Hypotheses 1 and Hypotheses 2 since past good firm environmental performance is associated with future positive abnormal stock market returns while current bad environmental performance has an immediate negative effect in the stock market the day the environmental information is released to the investors. In this section we perform additional empirical analyses to assess the robustness of our empirical findings and rule out other potential explanations for our results. First we check if our results hold exclusively for those companies with low emissions in 2005 or if they hold more generally when we choose other years to identify those companies with low toxic emission levels. Second, we investigate if our results could be driven purely by industry stock market effects rather than asymmetries in individual firm environmental performance. Finally, we replicate our analysis using Tobin's q instead of stock market returns as a measure of firm financial performance to confirm prior literature outcomes and check whether companies in our Green/ Black portfolio have superior/inferior financial performance.

When evaluating the strong empirical results discussed in the previous section, one could legitimately wonder if our results are exclusive for those companies that were outstanding environmental performers in 2005 or if it holds also for those companies that were outstanding environmental performers in other years. With this in mind, we replicate the procedure detailed in section 5 above and we construct green and black portfolios for each year belonging to the interval 2003 to 2008 using as explained before the highest and lowest quartile of companies in the IRRC sample according to the toxic emissions to sales ratio. As a result now the firm composition of the Green and Black portfolio varies every year. In particular, the number of companies included in both portfolios grows with time since the number of companies included in the IRRC sample also increases with time. Next, we proceed to analyze the monthly stock market behavior of those companies that belonged to the Green and Black Portfolio with a time lag of three years. This is, we study the stock market behavior of those companies included in the Green and Black portfolio in 2005 during the 12 months of 2008, the stock market behavior of those companies included in the Green and Black portfolio in

2006 during the 12 months of 2009 and we proceed like this consecutively for the whole period.

Another caveat could be that the different industry composition of our two portfolios is behind the asymmetric stock market performance between Green and Black Portfolios. For example, it could be the case that "Green" industries or sectors that by its input requirements display low levels of pollution have surprised the stock market with good financial results or prospects due to unexpected favorable regulatory changes in the US or worldwide. Even if Table 1 shows how around half of the companies in the Green Portfolios operate in industries that also have counterparts in the Black Portfolio, our results could be driven by the other half of "green" companies that operate in industries without representatives in the Black Portfolio. We address this concern in two different ways.

First we replicate the above analysis but taking into consideration only those companies in the Green and Black Portfolio that operate in the industry "Chemical and Allied Products" corresponding to SIC number 28. We choose this industry because is the industry with the largest number of individual companies present both in the Green and Black Portfolios.

Also, by observation of the IRRC sample we have detected a strong industry pattern in those companies that do not exceed the EPA threshold and since we want to abstract from industry effects as far as possible we eliminate that part of the IRRC sample. Proceeding in this way leaves us with a total number of 84 firms. Next, we compute the ratio of total firm waste emission in pounds divided by total firm sales in millions of dollars. We use the value of this ratio to order our sample of 84 firms and we select the top and bottom quartile in order to capture those firms with the highest and the lowest waste to sales ratio, respectively. The 21 firms belonging to the top quartile will constitute what we call the "Black Portfolio". Black Portfolio firms have a waste to sales ratio larger than 630.44. The 21 firms with lowest waste to sales ratio constitute what we call the "Green Portfolio". These Green Portfolio companies have a waste to sales ratio lower than 32.27, but larger than zero by construction of the sample. The Green Portfolio companies are a little smaller than Black Portfolio companies with average total sales of \$1706.8 million versus an average of \$2398.8 million for Black Portfolio companies. We utilize the CUSIP identifier of firms belonging to both green and black portfolios to get its monthly stock returns including dividends from the CRSP dataset. The stock market returns in a given period are defined as the increase (or decrease) in stock market prices during the period plus any dividends distributed to shareholders divided by the stock market price at the beginning of the period.

6. Conclusions and future research

In this paper we have found evidence that green companies enjoy positive abnormal stock market returns many years after they could be characterized as environmental out performers. These abnormal returns are not only statistically significant but also of great economic importance. According to our estimations the abnormal positive returns are between 14 percent and 17 percent a year. On the contrary, we fail to estimate any significant abnormal negative returns for those companies that stood out in the past by its poor environmental performance. These empirical findings could signal that investors price properly the negative effect of current environmental under performance but downward bias the positive value implications of Green strategies.

In terms of future studies our results have a number of interesting implications. First, coming research should be aware of the potential existence of several-year-ahead effects rather than just contemporaneous when identifying the effects of firm environmental performance on firm

stock market. The importance of this time-lag phenomenon could partially explain the contradictory results found in previous literature when estimating the link between environmental and firm performance. Second, following the lines of Klassen & Whybark (2009) this paper leaves open the question of which particular environmental technologies investors have problems to price properly: pollution prevention, pollution control or management systems? This knowledge would be particularly relevant to inform managers of the potential downsides when choosing alternate environmental technologies. Finally, our sample ends in the year 2008. Do our results still hold with data about environmental performance in the twenty first century? It could well be the case that investors have learnt now the value creation capabilities of Green strategies even if they failed to do so in the mid-nineties; but if they have learnt or not is an empirical question that still waits to be answered.

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The Legal and Accounting Dimension of Pawn

Iuliana CENAR

cenar_iuliana@yahoo.com

University "1 Decembrie" 1918 Alba Iulia

Abstract

The growing tendency of transactions taking place in pawn shops, their importance in obtaining financial resources in times of economic crisis and the need to get complete and accurate accountancy information are the reasons of approaching legal and accountancy aspects regarding pawn. Following the course of the thematic ground, the paper presents the theoretical senses of pawn, the legal framework for the operations taking place in pawn shops, the accounting instruments used in practice, as well as the pawn's implications for the owners of the goods and of the pawn shops. In the current environment, which is continuously changing, this paper wants to be a support element for the ample and complex process of procuring financial resources and managing information.

Keywords: accountancy, pawn, financial resources

JEL code: M41, K23

1. Introduction

Pawning is an old practice, whose origins are found in ancient times, the pawning shops were the first registered credit institution. The first network of pawn shops, "The House of Lombard", was created in Europe at the end of the middle ages. Subsequently, the pawning practice was extended in America and in other areas of the world; therefore, at the end of last century, pawning was the main source of consumer loans.

Today, pawning is the alternate crediting solution that all the social categories turn to when they need to borrow small amounts of money on short periods of time, which the financial institutions can't provide giving the cost of the needed documents to obtain the credit or to avoid the bureaucracy that rules the banking system and it's also a solution that saves time.

It is known that accountancy is the best source to obtain the largest weight of information necessary to make operational and/or strategic decisions. At the same time, it's true that the inflexible patterns of the accountancy techniques were lately eliminated by taking into account the unlimited functioning manner of the accounts indicated by the booking legislation. But this doesn't mean that the theoretical base is ignored when transposing in accountancy the patrimonial implications of any transaction, including the ones taking place in pawn shops.

This paper wants to highlight the characteristics and relations of the triad legislation-accountancy-taxation at the level of pawn shops. It's known that the world is a unit in diversity and accountancy is no exception from this rule, because it is heavily ingrained by legal and fiscal rules. The pragmatic side wasn't neglected either, it supplies several accounting practices of the pawning operations; and the arguments for that particular accounting techniques which maintains the accurate and real image of accountancy weren't neglected either.

2. Theoretical and legal approaches regarding pawning

The legal framework is mainly established on the following normative documents:

- ✚ Government Order no. 28/2006 regarding the regulation of fiscal operations;
- ✚ Law no. 31/1990 regarding the commercial entities, republished with the further alterations and completions;
- ✚ The Civil Code of Romania;
- ✚ Decree-law no. 2561/1936 for the founding of pawning shops.

The Civil Code defines **pawning**⁴⁵ (pledge) as being “an accessory, unilateral, real contract, whereby the debtor remits to his creditor a tangible or intangible good to secure the liability”, in other words, a form of the loaning contract.

The dictionary defines pawning as a bond, a guarantee, a valuable object left or taken as bond. According to the same source, the bond is the tangible good left by the debtor at the disposal of its creditor as guarantee for the payment in time of a debt. Pawning is different from mortgage because it deals with tangible goods that are entrusted to the creditor or a third party. Mortgage is a real right; based on it the creditor can sell the intangible good received in guarantee from the debtor in case he doesn't pay his debt in time.

Pawning happens between two persons, namely the pawning shop as a creditor and a legal or private body, called debtor. In exchange for the pawned good, the debtor receives a sum of money, established after an assessment of the pawned good. The creditor can't use the bonded good, he is obligated to preserve and keep the good until the full payment of the claim in order to return it.

In case at the due date the debtor hasn't acquitted his debt, the creditor can proceed to working the bond. The partial payment of the debt doesn't lead to the partial extinction of the bond, because it is indivisible (Civil Code, article 1695), it is exticted only through the full payment of the debt, including the interests and the expenses generated by the preserving of the good.

An essential element for pawning is the **pawning contract**, which, beyond the reciprocal generator of rights and obligations for the involved parties, states the owed sum, the value and the nature of the pawned goods, as well as a description regarding their quality, weight and dimension. The pawning contract is signed for a period of 5 to 30 days and can be renewed countless times if the requested commission is paid until the date when the renewal is solicited.

The object of the pawning contract could be tangible assets that are in usage, such as: clothes, linen, cutlery, furniture, etc.; valuable objects: jewels, stones, gold, silver, precious metals and other expensive rocks.

The following categories of goods can't be pawned: objects of religious cult; military equipments and weaponry; objects with the logo of a public establishment; tooling; objects with a very large volume; objects that present fire or explosion danger; as well as deteriorated goods; fragile goods; objects that are known or presumed to be stolen.

As it was previously mentioned, to run pawning operations it is necessary to have a collectivity organized in accordance to certain legal patterns, an organization with an economic and social role. Such an organization is the pawning shop.

⁴⁵ The Civil Code of Romania, article 1685. Source: <http://www.dscllex.ro/coduri/cciv6.htm#t7> (July, 2009).

The main and "sole" object of a pawn shop (according to the regulations of the legal framework) is to grant credits by receiving goods for pawning.

In order to run their activity, pawn shops must observe the following conditions:

- ✚ registering in the Entry Register kept by the National Bank of Romania;
- ✚ the organization and functioning according to Law no. 31/1990, republished, with the further alterations and completions;

Therefore, the pawn shop is a business enterprise subjected to the matriculating in the Register of Commerce, according to Law no. 31/1990 (art. 36-45), and it is a form of non-banking financial institution, its subscription in the Entry Register being kept by the National Bank of Romania through the Regulation and Authorization Direction being mandatory⁴⁶, according to Government Order no. 28/2009 (art. 58 let. a). In the first part of July, 2009, there were 1676 entities registered in this Entry.

Therefore, the legal framework gives the pawn shops the possibility to organize and function in any of the legal forms stipulated by the law of business enterprises (share companies, with limited liability, in limited partnership, limited by shares or partnership firms). From the Entry register of the NBR we can see that the favorite legal form is the limited liability company, probably of its low value of corporate equity (200 lei) and other legal implications generated by the existence and ceasing of the activity of such an entity.

3. The accountancy instrumentation of pawning

The careful management of resources of any type has become an essential imperative in a world where almost everything is sold and bought, where resources are running low and the needs are growing. The informational sources reveal the growth of the number of transactions run by pawn shops with approximately 50% in comparison to last year. Accountancy is fundamental in the careful management of the resources involved in running activities, including in pawn shops.

For the practical side of our demarche, we thought it best to show an actual example regarding the stages, document support and the reflecting manner in the accountancy of pawning. The business enterprise "XZY Pawn House" Limited Liability functions as a pawn shop and was registered in the Register of Commerce in 2001 and in the Entry Register of NBR in 2008. The price list for the undamaged pawned goods practiced by the company is the following:

Price list for the undamaged pawned goods

Table no. 1.

No. crt.	Operations	Karats	Prices/gr. gold (lei)
1.	Pawned gold objects	14	35
		18	40
2.	Sold gold objects	14	63
		18	70

⁴⁶ In order to get recorded in the Entry Register in 30 days after registering in the Register of Commerce, pawn shops will remit to the National Bank of Romania to registering request in the Entry register accompanied by the following documents: affidavit, filled up and signed by each manager, a copy of the identity document for each manager, a copy of the memorandum of association, a copy of the certificate of registration.

The business enterprise "XZY Pawn House" Limited Liability signed at 15.05.N a pawn contract with P.I., for a period of 30 days. The client leaves as bond a pair of earrings of 14 karat gold, with a weight of 4.5 gr. and a ring of 18 karat gold, with a weight of 3.4 gr. The goods are in good condition, so their price is standard, namely 40 lei/gr. for 18 k gold and 38 lei/gr. for 14 k gold.

After their assessment, the pawn shop gives the owner of the gold objects the sum of 306 lei. The practiced commission by the pawn shop is 0.5%/day, meaning 45.9 lei for 30 days ($0,5*306/30*100$).

A: The enterprise draws up *pawning contracts* in two copies, one for the „Owner” and the other for the „Pawn Shop” and it includes the following clauses:

1. The object of the contract: handing goods to the Pawn Shop (table no. 2)

Goods handed to the pawn shop

Table no. 2.

No. Crt.	Goods	Measuring unit (gr.)	Quality unit (k)		Price/gr. gold (lei)	Value (lei)
			14	18		
0	1	2	3		4	(2*4)
1	A pair of gold earrings	4,4	x		35	171
2	A ring	3,4		x	40	136
3	–	–	–	–	–	–
Total						306

2. The goods' assessment: established on mutual agreement.

3. The calculus method for the terms and commissions:

- ✚ The business enterprise "XZY Pawn House" Limited Liability specifies that the period for which the contract is signed is 30 days. The owner can suggest a different term until he estimates that the goods will be retrieved.
- ✚ The commission is 0.5% / day of the good's pawning value established previously on mutual agreement and it will add up to 45.9 lei.
- ✚ The obligations of the parties:
- ✚ The pawn shop must keep the goods for the disposal of the owner for the period of the contract; in case the goods are lost by the guilt of the shop, the owner will be compensated with the pawned sum associated to the goods.
- ✚ The owner must acquit the loaned sum when retrieving the goods, as well as the commission owed for the days when the loan was used, but not a commission for less than 5 days, because this is the minimum length of the contract.
- ✚ The goods are returned only to the owner or another person who has an empowerment mandate from the owner.
- ✚ Transferring the ownership: the parties decide that at the end of the contract the goods that were not retrieved will pass into the ownership of the pawn shop.

B. The signed *contracts are registered* in a register drawn up by the person who holds the cashier position in the pawn shop. This register is shown in table no. 3 and it stipulates the following:

UNIT: The business enterprise "XZY Pawn House" Limited Liability

Page number

REGISTER month L

Table no. 3

No. Crt	Recording date	Document (type, no., date)	Explanations	Sum
0	1	2	3	4
1	15.12. N	Pawning contract no.3214/15.12.N	Pawning precious objects	455
2	15.12.N	Pawning contract no.3215/15.12.N	Pawning precious objects	306
To return				761

C: Granting the loan

The booking of the operation is the following:

461 Various debtors	=	5311 Cash desk in lei	306
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Outside of the balance are concomitantly registered the pawned goods, at the total value of the granted loan, for both cases:

D 8033,,Material values received for keeping or in custody	306
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D: When the **contracts are due** there are several possibilities, such as:

- D1. The loan is reimbursed, without asking for the extension of the contract;
- D2. The reimbursing term is extended;
- D3. The loan isn't refunded and the pawn shop:
 - a) registers the retained goods as an inventory object;
 - b) decides to sell the goods.

D1. The loan is reimbursed, without asking for the extension of the contract (cashing disposal);

5311,,Cash desk in lei"	=	%	333,5
		461 Various debtors	306
		704 Revenues from performed works and services	43,5

Pawn shops have different commissions (generally between 0.5% and 1% per day), different assessments (for example, for a gram of 14 karat gold they grant between 35 and 38 lei, and for 18 karat gold between 38 and 40 lei) and different pawning conditions.

C 8033 „Material values received for keeping or in custody"	306
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D2. The reimbursing term is extended

This is considered to be practical, the contract is new, but the booking remains the same. The quantum of the loan is the same, only the quantum of the commission is changed and is retained either when extending the reimbursing term, or at the due date. If the first commission was not paid at the end of the contract, then it must be paid / cashed by the pawn shop when the contract is extended. The goods received from the owner, at their pawning value, are registered outside of the balance.

D3. The loan isn't refunded and the pawn shop

a) registers the retained goods as an inventory object (in case the pawned shop meets the necessary conditions to be acknowledged as a fixed asset, the adequate account will be used);

The retained goods are compensated with the loan granted to the owner.

303 Materials of inventory objects nature	=	461 Various debtors	306
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Because the entity sells on the market with 48/50 lei a gram of 14 karat gold and 55/60 lei for 18 karat gold, these must be registered at the market value. The difference is acknowledged as an income.

- for the pair of earrings of 14 karat gold, with a weight of 4.5 gr.:
(4,5g*50 lei - 4,5g*38 lei= 54 lei)
- for the 18 karat gold ring, with a weight of 3.4 gr.:
(3,4*60 lei - 3,4*40 lei = 68 lei)

303 Materials of inventory objects nature	=	758 Other revenues from exploitation	122
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b) decides to sell the goods

When the entity decides to sell the goods, it must also register the VAT debt for the value of the goods that have become its propriety. In this moment, the goods are considered merchandise and the selling to third parties is entered in the books.

371 Merchandise	=	%	428,00
		461 Various debtors	306,00
		378 Price differences for merchandise	102,53
		4428 Undue VAT	19,47

At the same time, outside the balance, the value of the pawned goods must be diminished and sold off.

C 8033 Material values received for keeping or in custody	306
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Selling the goods pawned previously, which have become the propriety of the pawn shop, is booked as follows:

5311 Cash desk in lei	=	%	428,00
		707 Revenues from sold merchandise	408,53
		4478 Collected VAT	19,47

The discharging of the sold merchandise:

%	=	371 Merchandise	428,00
607 Expenses regarding the ceased merchandise			306,00
378 Price difference for merchandise			102,53
4428 Undue VAT			19,47

In practice, pawn shops also have the following accounting options: using account 2678 *Other fixed claims* in order to highlight the claim to the owner of the pawned goods, or using account 708 *Revenues from various activities* instead of using account 704 *Revenues from performed works and services* in order emphasize the commission.

We considered these accounting practices wrong because:

- ✚ the fixed assets are defined assets that generate benefits and are hold for a period longer than one year (OMFP 1725/2005 for the approval of the accounting regulations adequate with the European directives⁴⁷, art 64, align. 1) or the pawning contract is signed for a period of 5 to 30 days;

⁴⁷ Published in Official Gazette no. 1.080 from 30.11.2005

- ✚ for the pawn shop, the agreed commission doesn't have a random, divers feature, it results from its "main and unique" activity object, as it results from the legal framework;
- ✚ using account 2678 *Other fixed claims* calls forth the use of a financial income account (763 *Revenues for fixed claims*) and not an account of incomes from exploitation.

At the same time, the specialized literature opts for the use of account 708 *Revenues from various activities* in order to highlight the difference between the selling price and the procuring price of the jewels, taking into account this aspect when discharging. We think this accounting solution is not erroneous.

4. A few fiscal aspects

The collected interests or commissions by the pawn shops for granting loans represent the revenues obtained from providing financial services, which, according to the stipulations of the Fiscal Code, are operations free of value added tax. These revenues are VAT free regardless if the fixed assets left by the debtor as a bond are returned or not.

But, if the loan is not reimbursed, the pawn shops owe the value added tax for the value obtained after selling the good that has become its propriety. Pawn shops are taxable persons with a mixed system, because the delivering operation of old objects made out of precious metals or rocks or semi-precious rocks (second-hand goods as they are called by the fiscal legislation) is taxable (art. 152 2), and the operation of granting loans is a exonerated (art. 141 align. (2) let. a) pct. 1). The tax base is represented by the difference between the total profit margin achieved by the re-selling taxable person and the value associated to that margin, according to art. 152 2, align (13). Therefore, taxation means gain for pawn shops because the run transactions are subjected to the mixed VAT system.

5. The advantages and disadvantages of pawning

The granted/received loan as a result of signing a pawning contract has advantages and disadvantages, regardless of the two positions we could find ourselves in. Thus, for: For the pawn shop can be identified a series of advantages, such as: (i) the short loaning period; (ii) the high level of the commission in comparison with the (monthly) interests retained for bank credits; (iii) the commission is VAT free; (iv) increasing the incomes by selling the goods "obtained" at a price below their market value. On the other side, the disadvantages are: (i) the growing stocks of pawned goods that can't be capitalized because of their deteriorating condition; (ii) the need for additional expenses to process the pawned goods as a result of their incondite state. With the (taken) risk to "ignore" the managing principle of accountancy, we mention that the pawning advantages for the owner are: (a) receiving a loan in a short period of time, with minimum documents; (b) the possibility to reduce the length of the contract (a minimum of 5 days); (c) using as a bond goods that are not exactly in fine shape, etc.

Among the disadvantages for the owner are: (a) receiving a relatively small loan, compared to the market value of the goods; (b) high commission in comparison to the (monthly) interests retained for credits (between 0.5 and 1% per day); (c) in case the loan is not reimbursed at the due date, the pawned goods are lost.

6. Conclusions

The aspects mentioned previously allow drawing the following conclusions regarding the features of pawning and the accountancy of pawn shops. Therefore, if from the point of view of the creditor, pawning is a profitable business, especially in periods of crisis (like the current

times), for the owner, pawning is a good solution only for passing financial crises, given the high costs involved in this manner of procuring financial means (over 150% per year). If the necessity of financial resources spreads on a longer period of time, the solution of turning to banking companies or the informal help of the family must come first. The granted loan after signing a pawning contract is a "treasury" loan, on short term, usually 30 days. This is a reason to consider as inopportune the use of a financial fixed assets account (2678 Other fixed claims). Even if, according to the current accounting regulations (The Ministry of Economy and Finances Order 2374/2007⁴⁸), the function of the accounts is not limitative, in support of our theory come the definitions associated to the fixed assets, which are also stipulated in the legal framework.

For pawning a minimum of documents (identity card or passport, pawning contract) and conditions are needed, and through pawning both the pawn shop and the owner reach their goals (obtaining financial resources). The pawn shop obtains income after investing the liquidity surplus, and the owner receives liquidities right away, without the status of an income earner. Both sides face the risks associated with this type of service. We wouldn't like to leave out the role of accountancy in single ledger when booking the pawn operations. Despite of the "primacy" of accounting in double entry, it is still a welcomed presence on the accounting scene.

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The Dividend Politics of Romanian Enterprises

Cristina-Alina VERIȘAN

cristina.verisan@spiruharet.ro

Georgeta ACHIMESCU

georgeta.achimescu@spiruharet.ro

Spiru Haret - University - Constanța

Abstract

The dividend politics – a managerial option of any entity between partial re-investment and total re-investment of the net profit and/or total or partial distribution of this one in the form of dividends. For a good management we have the problem to choose between the dividend and the auto-financing. The allocation of a big amount of the net profit as dividend limits the possibilities of auto-financing of the society and manages to the rise of the degree of obligation. On the other hand, a society which practices a politics of dividend characterized by a high rate of dividend enjoys of the appreciation of his actions on the market, and this fact has as consequence the rise of the possibilities of financing through new emissions of actions. The choice of one of these alternatives or the possibility of the effectuation of combinations between them is governed by the major demand of the finances – the maximization of the value of the entity.

Keywords: dividend, residual dividends, extra-dividend, rate of dividend, investing behavior

1. Introduction

Two big theorists of the finances, Merton Miller and Franco Modigliani elaborated, at the beginning of the '60, the theory of the insignificance of the dividend, which affirms that the dividend politics has no effect neither on the market price of the actions, nor on the cost of the capital. The two theorists explained that the value of an enterprise depends only on the income generated by her actives, and not on the manner of repartition of this income between dividends and the proper founds of financing. The conclusion of these two was that as a result of granting the dividends, the society must advance supplementary social capital in order to finance the activity in accordance with the previously established budget. This way, the rise of the dividend for an action is neutralized by the rise of the number of actions possessed by the owners, the price at the market changes not.

The two theorists based their arguments on a lot of "caeteris paribus" conditions, as if the inexistence of the emission or of the transaction costs, the null value of the income tax, the total transparence of the information concerning the perspectives of the enterprise, the distribution of the incomes with no effect on the costs of the own capital of the enterprise, etc.

The theory of Miller and Modigliani received an opposition from other two financing theorists, Myron Gordon and John Lintner, who appreciated that the investors are more attracted by the payment of dividends as by the eventually gains of the enterprise following the reinvestment of

the obtained profit. According to this two, the investors give a bigger value to a dollar from dividends as to a dollar from estimated capital gains.

The argument of Gordon-Lintner was called by Miller and Modigliani the mistake of “the sparrow in the hand” because the majority of the investors plan anyway the reinvestment of the amounts received as dividends in actions in the same enterprise or in similar enterprises. According to these two, the degree of rescues of the hard cash depends only on the activity of the enterprise, on the operational tides and not on the politics of the dividend.

These two theories offer contradictory advices to the managers of companies. That empiric testing has not given any clear conclusion because of the fact that the hypotheses on which are based exists not in the practice. In Romania, the instability of the national currency and the low degree of maturity of the capital market, as well as the predisposition of the investors to receive fast gains are turning the dividend into an attractive object, which leads to the appreciation in the market of the actions emitted by the societies offering the dividends.

2. The dividend politics

The dividend represents the part of the profit of a joint-stock company, which amounts to any stockholder in relation with the actions he possesses. For the investors on the stock exchange market, the politics of dividend practiced by the societies became an important standard for the adoption of the investment strategy. This obtains a more and more bigger importance for the persons who don't like the rescue, who save the available money through the capital market as an alternative for the banking system. At the same time, the entities according the dividends are interesting as well for the other investors with a bigger inclination to the rescue, with a bigger supplementary amount as the gains of the differences of the rate.

But the politics of dividend is the one which determinates the distribution of the profits obtained in payments to the shareholders and restrained funds in order to reinvest them in the business, therefore the one which establishes the rate of the dividend, a rate to be calculated through the report in percents between the sum of the net profit distributed to the shareholders in the form of the dividends and the value of the net profit.

For the management of any entity we confront with the problem of choosing between the dividend and the auto-financing. The attribution of a big rate from the net profit as dividend restrains the possibilities of auto-financing of the society and manages to the rise of the degree of obligation. On the other hand, a society which practices a politics of dividend characterized by a high rate of dividend enjoys of the appreciation of his actions on the market, and this fact has as consequence the rise of the possibilities of financing through new emissions of actions.

According to the legal stipulations, the dividends are given only one time for a financial year, and this fact after the end of the financial year, which, in our country is the same as the calendar year, so that the dividend of the profit obtained by the enterprise for that year is given the next year. At the same time with the General Assembly of the Shareholders (which usually take place before April including), where are analyzed the financial results of the society for the past year, it is also established the manner of conceding the dividends. In practice for the unfolding of the General Assembly of the Shareholders it is published a summons to fix, at the proposal of the Administration Council a reference date, a date which must be after the publication of the summons and which serves to identify those shareholders who can decide in the General Assembly of Shareholders concerning the dividend politics of the society.

These are the ones who can receive the dividends in the case they are voting the grant of dividends. Between the date of publishing of the summons and the date of the unfolding of the General Assembly of Shareholders must elapse 15 days.

Also in the General Assembly of the Shareholders where they are voting the grant of the dividend must be established the date to make the payments, but also the manner to pay the dividends.

In the practice, in establishing the politics of the dividend, the managers of a society must take care of the fact that the announcement of one dividend estimated for the future represents an engine of rise of the prices of the actions on the market. The appreciation of these actions on the market is motivated, except the dividend estimated to be given, also by the fact that the estimations on the dividend represent a signal of future profits, of tides of cash with positive clearance sale. On the other hand, the management can't ignore the preferences of more important shareholders. This way, a shareholder found of investment can choose a bigger rate of the dividend, to the detriment of the amount of profits given as a source of investments or financing of the activity of the society. Another shareholder can not pay so much attention to an immediate gain from dividends, but sustain fervently the reinvestment of a bigger part of the net profit.

In the states with developed capital market there are practiced more politics of dividend, so that the managers can choose alternative variants of distribution of the net profit obtained by the society, satisfying one category or another of shareholders. In the practice, the entities can use, in function of the economic context or of their business opportunities alternatively any politics of dividend.

The politics of the residual dividends – according to which an entity, in order to decide the proportion of profits distributed in the form of dividends must follow the four steps: the determination of the optimal investment budget, the determination of the necessary capital for the financing of this budget; the utilization of the profits accumulated in the own capital, as much as possible and the payment of dividends only if the obtained profits are bigger than the necessary ones in order to realize the planed investments.

This method comes from the premise that the investors prefer that the enterprise retain and reinvest the profits, if the rate of profit obtained after this reinvestment is bigger than the rate of profit which the investors can obtain for another investments with a comparable degree of rescue. This politics of dividend will disappoint the people who prefer to receive one part of the net profit in the form of dividends. Shortly, this theory which affirms today the managers, considers that the politics of dividend is not a very important financial decision. The central idea of this theory is to use, with priority, the profit retained for the auto-financing of the investment projects, as many times as the counted profit of these ones is bigger than the costs of the capitals of the entities, obtaining this way a maximization of the value of these. We can say this way that the optimal politics of dividend is the one of the reinvestment of the total profit.

Constant or progressive rising dividends – means the grant of dividends in constant amount or with a constant rate of rising, which usually adjust with the rate of the inflation. Through the manner of function, the grant of the dividends supposes generally speaking economic and currency stability. For this reason it is practiced more in the developed countries.

The reasons at the base of that politics are in nature to attract the investors, counting on their preference for the stability. This way the investors accord a bigger value to the dividends, which they are sure they will receive. The fluctuant dividends have a raised degree of rescue and this fact determine a lower appreciation on the market of these actions. On the other hand, a lot of shareholders utilize the amounts they receive as dividend for current expenses and they

prefer to plan their expenses in function of stable amounts. They can be in unpleasant situations if they are forced to liquidate a part of what they detain in order to have cash money.

The constant rate of the dividends – a politics of dividends is characterized by the distribution in form of the dividends in a constant proportion of profits. The politics of distribution through a constant rate of the dividends is a disadvantage of the investors when the profits are low. In the same time it has not a big degree of predictability as the politics of the progressive raising dividends, but it realizes a compromise between the interests of the entity and those of the shareholders. On the one hand, the society can better administrate the profits it obtains and not support the burden of a dividend fixed on the periods with a lower profit (it can better plan the future investments and the engagements with the purveyors). On the other hand, the investors, even if they are not expected at a constant amount given as divided, they can estimate the dimensions of this one in function of the quarterly profits registered by the entity, corroborated with the budget of amounts and expenses. For example, if the stipulations of the budget of amounts and expenses regarding the net profit are surpassed at the end of the third quarter, the chances that the whole profit estimated to be realized are raised and, as consequence, the investors can estimate the value of the dividend which they follow to receive, being this way accomplished the demands of the entity regarding a good auto-financing, as well as the predisposition to stability of the investors.

The regular dividend with a low value and the surplus – such a politics of the dividend represents in fact a compromise between the payment of a stable dividend or a dividend with a stable rate of raise and a constant proportion of the profit distributed in form of the dividends. For the entity, the advantage is a bigger flexibility and for the investors the assurance to cash at least a little amount for the regular dividend, so that it could be paid even in the years with little profits and then supply this amount with an extra-dividend, in the years when excessive funds are available. This supplementary dividend means a real signal for the investors that the society obtains considerable profits. If the entity pays that supplementary dividend year after year, the payment becomes a habitude for the investors. Its elimination can have as effect the diminution of the price of the actions on the market, even if at the beginning it was seen as a surplus.

In function of the size of the dividend, the entities can be categorized in one of the three types of the dividend politics:

- ✚ *The politics of direct participation at the realization of the profit*, based on the assurance of a relatively constant rate of distribution of the dividends, where the size of the distributed dividend is variable in function of the size of the obtained profit and the shareholders have a direct amount of participation at the profit.
- ✚ *The politics of stability or prudence*, where the entity has as proposal to assure a constant dividend or a constant rate of yearly raise of the dividend, doesn't matter the variations of the size of the profit.
- ✚ *The opportunist politics*, where the size of the dividend is in function of the decision of investment and of the decision of financing.

In our country, the clear definition of a dividend politics is hard to realize, as far as concerns the particularities of the Romanian industry. A lot of entities with productive activity are confronted with fixed actives, used physically and morally and with the supra-dimension of the work. All this facts need restructure, which make difficult to establish a plan on long term regarding the dividends. Otherwise some of these entities with a big size have earned significant debts to the state budget or to the budget of the social assurances. Until now, the financial societies (S.I.F., banks) or the assurance societies realized the establishing of some practices regarding the dividend, which are very near to a politics of the dividend relatively coherent.

In the application of one of the possible forms of politics of dividend that we announced, we must take care of the factors of influence on these ones:

- ✚ *the juridical settlements in a continual modification;*
- ✚ *the availability of the hard cash* – a crisis of liquidities can cause difficulties to grant that ones, sometimes the entity can be forced to contract banking loans.
- ✚ *the debts of the entity* – in the case of some historical bigger debts, the entity has the normal tendency to retain a bigger amount of the profits obtained for the payment of these ones. This way the sum purposed as dividends will be lower or even null.
- ✚ *the possibility of the acceleration or the adjournment of the projects of investment* – this fact will avoid to an entity to respect easier the politics of dividend established further.
- ✚ *-the effects of the dividend politics on the costs of the capital* - the managers must take care while adopting a decision regarding the grant of dividends at the manner are appreciated at the market the actions of a society with a stable politics of dividend as well as at the manner to constitute this politics in a mechanism of signalization of the results of the society.
- ✚ *the degree of concentration of the actions and the preferences of the shareholders* – the social capital of some societies is concentrated in the hand of one shareholder or a group of shareholders. Their preferences guide while adopting some practices regarding to grant the dividend. This way, if for example, the major shareholder is a society of financial investments, which at its turn prefer to pay the dividends to its shareholders, the entity will then adopt a stable practice of payment of the dividends. It is to be knew also the fact that the entities where the major shareholder is the Employers Association (the majority of those people bought actions with the payment in rates), gives usually dividends in a big proportion of the net profit.

In order to follow the dividend politics of an action society, to create the possibility to compare it with other similar entities or to take evidence of the performances of the different entities regarding the politics of dividend can be used different indicators that we can enumerate here:

- ✚ the dividend on an action – it measures the absolute sum of the dividends distributed for an action detained;
- ✚ the rate of distribution of the dividends – signalizes the rate of the distribution of the dividends;
- ✚ the efficiency on one action – indicates a high economical expressivity, with a big interest for the shareholders and because signifies an authentically efficiency of the capital placed in actions;
- ✚ the profit on one action – represents the practical enrichment of the shareholders in the course of one year because the profit will be distributed as dividends or it will be capitalized, representing also the property of the shareholders.

It has been presented some perspectives on which depends the politics of dividend of one entity, without having the pretention to cover all the factors of influence or to debate in a detailed way the mechanism of action on the decision of the management concerning the dividends.

3. Aspects of the politics of dividends in Romania

The practice of a dividend politics from the Romanian entities, after the European principle, is not entirely possible because of the instability of the currency, because of the law instability and of the degree of attrition of the fixed middles. If we follow therefore the evolutions of the last years, we can discover a similitude, from year to year, in establishing a rate of the dividend, of a rate of reference or of other aspects resembling to the politics of the dividend. More than that, at one analysis of the politics of the dividend in Romania we can constant that it is in course of development, but it is not on a high economic level as necessary. It doesn't matter the politics of dividend adopted by an entity in Romania, it is necessary to consider the rate of inflation extremely high of the last period. The payment through the dividends is only in

part satisfying, because the rhythm of the raise of these was low than the general indices of prices in Romania, so that the efficiency of the actions through the dividends can be negative, it not assure a valorization at a correspondent rate of the invested capitals, but can manage to a degradation of these ones in the time.

For the realization of a study of case I used some statistic facts and I selected a number of 20 entities classified in function of the stability of the rate of the dividend and of its size. I used the middle deviation, which can calculate the middle of the deviations from the arithmetic middle of these (a low deviation indicates a higher stability of the rate of the dividend. This deviation was divided to the arithmetic middle of the rates of the dividends in the last three years. So, here are explained the entities for which this report has the lower value and indicates a low deviation from a high arithmetic middle of the rates of the dividend (in order to keep the confidentiality of the dates I renamed the entities I have studied).

Entity / Company	Rate of the dividend			Arithmetic middle	Middle deviation
	2006	2007	2008		
Company Alfa	37,65	35,79	36,24	36,56	0,73
Company Omega	41,72	38,66	41,42	40,6	1,29
Company Beta	66,99	60,35	67,38	64,9	3,04
Company Urania	33,45	39,39	38,59	37,14	2,46
Company Select	65,80	76,96	77,81	73,53	5,15
Company Elegant	37,03	44,76	43,86	41,88	3,24
Company Familia	94,2	75,27	89,77	86,41	7,43
Company Prietenii	59,31	76,63	70,52	68,82	6,34
Company Nepoții	33,4	40,29	45,09	39,59	4,13
Company Fii	23,49	29,99	31,18	28,22	3,16
Company Fiicele	29,33	35,31	25,68	30,1	3,47
Company Asiatica	42,51	48,59	33,9	41,67	5,18
Company Europeana	20,29	15,98	23,81	20,03	2,7
Company Mondiala	62,94	87,55	67,78	72,75	9,86
Company Afacere	46,83	32,75	36,55	38,71	5,41
Company Cultura	16,36	15,44	21,72	17,84	2,59
Company Educație	32,48	31,15	43,94	35,86	5,39
Company Invățământ	27,95	48,8	36,33	37,69	7,4
Company Agricultură	31,24	23,78	43,66	32,89	7,18
Company Sport	11,22	7,24	6,89	8,45	1,85

It results that the society with the most stable politics of dividend is the Alfa Company, where really the rate of the dividends oscillated just a little around a value of 37%. The case of the Alfa Company must be analyzed while taking care of the fact that the major shareholder possesses 95% of the actions. This is interested to impose a politics of dividend stable to the societies which it controls, as a consequence of the fact that it must also pay its dividends.

The major shareholder of the Alfa Company possesses also 49,99% of the social capital of the Omega Company, which can explain its politics of dividend. Except the Omega Company, which has a destroyed structure of actions, the most part of the companies have a major shareholder who prefer, as we can see the security to receive a relative stable percent of the net profit as a dividend. So 7 of them have as major shareholder the Employed Association (Sport Company, Cultura Company, Mondiala Company, Invatamant Company, where there are two associations of the employers, which possess together more than 50% of the social capital – Select Company, Familia Company and Europeana Company).

Four companies have as major shareholder another company which possess the most part of the social capital, at the same time, for the two other societies the major shareholder is the state, through two of its ministries, with more than 66% of the social capital. For other two societies the significant shareholders are two persons who possess together more than 44% of the social capital, the dividend representing an important source of amounts.

Remarkable is the fact that some societies are keeping relatively stable the period of fixing the date of reference for the grant of the dividend. These are empiric observations and they are not imposing the security of the stability of the future reference dates. The Financial Investment Societies are received as the societies which practice the most stable politics of dividend. The grant of those in important proportions of the net profit and in rates relatively stables became already an habitude. But not all the societies give dividends in cash money.

For example, from 2003 to 2008, the Bank "Certitudine" preferred the grant of free actions as a consequence of the raise of the social capital from the reserves constituted from the net profit.

Period	2003	2004	2005	2006	2007	2008
Free actions at 100 detained*	49	63	45	68	80	36
Price of valorization** (lei/acțiune)	2750	1410	1620	1630	2650	3150
Net profit	6 530	12 782	26 317	36 465	44 272	-
Number of actions	5 000	10 000	17 370	39 616	71 309	97 086
Net profit per action (lei)	1,306	1,278	1,515	0,920	0,621	-

* the raise of the social capital of every year was realized through the incorporation of the reserves constituted from the net result of the last year

** the course of the market at 30 days after the date of the General Shareholders Assembly.

It is difficult and at the same time hazardous to make foreseeing, in the case of these societies, on the future level of the rate of the dividend (and, taking care of the evolution of the net result and of the stipulations of the budget of amounts and expenses, foreseeing on the level of the value of the dividend pro action). For all that, a player on the stock exchange cannot ignore the previous evolution of the practice of an entity regarding the grant of dividends and adjust the investment behavior calculating also this evolution.

4. Conclusion

At the level of any entity can be identified three financial politics, considerate at the beginning independent: the politics of investments, the politics of financing and the politics of the dividends. The alternatives of the decisions of the politics of investment are the specialization and the diversity of the activities while the alternatives of decision of the politics of financing are the internal and the external sources. The distribution of the dividends completes the image of a profitable entity, which can give money back from its own capitals. The constant distribution of the dividends manages to the raise of the investor's confidence in the entity, at the raise of the value of the entity on the market. The reinvestment from the raw profit manages to the raise of the financial autonomy, to the raise of the capacity of auto-financing, to the amelioration of the financial structure of the society's capitals. This way, the entity will have a superior financial potential of sustaining the own development, not only through auto-financing, but also the capacity to receive new credits. All this represent in fact factors of development and maximization of the value or the entity.

Because the alternative of the partial or entire reinvestment of the net profit in the financing of the projects of investment is a part of the politics of financing, we can say that the dividend politics is a part of the politics of financing. For a good management we have the problem to choose between the dividend and the auto-financing. The allocation of a big amount of the net

profit as dividend limits the possibilities of auto-financing of the society and manages to the rise of the degree of obligation. On the other hand, a society which practices a politics of dividend characterized by a high rate of dividend enjoys of the appreciation of his actions on the market, and this fact has as consequence the rise of the possibilities of financing through new emissions of actions. The choice of one of these two alternatives or the possibility to effectuate combinations between them is governed by the major demand of the finances – the maximization of the value of the entities. The principal objective of the financial management of an enterprise is the maximization of the value of the enterprise and can be realized:

- ✚ Through the maximization of the outputs of the enterprise;
- ✚ Through the minimization of the inputs of the enterprise.

The two ways of maximization of the value of the enterprise should not be regarded separately, but considerate permanently only together. From the financial perspective, the inputs become real in the components of the capital of the enterprise , its minimization consisting in the minimization of the costs of the different elements of the capital of the enterprise.

We will be able to see from this moment on that the first difficulties appear in the determination of the first costs for each of the specific components of the capital, and then, as a response at the managerial demands, at the level of the capital structure – in the form of the middle cost of the capital.

Otherwise, the decisions of financing are regarding three principal types of decisions:

- ✚ The choice of the structure of financing, which means the repartition between the capitals of the shareholders and those who come from the financial creditors. These decisions have a determinate influence on the size of the rescue supported by the shareholders. A raise of the obligation make grow the rescue for the shareholders.
- ✚ The politics of the dividends, that means the choice between the reinvestment of the profit and its distribution in the form of the dividends;
- ✚ The choice between the internal financing (auto-financing) and the external financing (the founds brought by the shareholders and the contracting of new financial debts).

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Quality - a Factor for Competitiveness Improvement for Small and Medium Enterprises

Ion IONITA

ion_ionita@yahoo.com

Academy of Economic Studies Bucharest

Florin POPESCU

apopescuflorin@yahoo.com

University Valahia of Targoviste

Ioan DONE

done.viorica@yahoo.com

Petroleum and Gas University of Ploiești

Jean ANDREI

andrei_jeanvasile@yahoo.com

Petroleum and Gas University of Ploiești

Mirela MATEI

mirematei@yahoo.com

Petroleum and Gas University of Ploiești

Jonel SUBIC

jonel_s@mail.iep.bg.ac.rs

Institute of Agricultural Economics, Belgrade, Republic of Serbia

Abstract

The impact of quality management on microeconomic systems is major. The integration into the European Economic Area requires a comprehensive process of compliance to European policies and practices, including implementation of quality management system. The dominance of the small and medium enterprises sector in the economy requires a specific action framework, the quality having a fundamental role. Only those operators who have implemented and certified a quality management system can valorize on their goods and services in the European market. Acting on the potentials' sphere, quality becomes a crucial resource for economic success. In this context, the authors aim to analyze the impact of implementation and certification of quality management on the progress of Romania small and medium enterprises in the context of diversification and globalization of the emphasis of European and world markets.

Key words: certification, quality management, quality strategy, and globalization

JEL: C88; M13

1. Quality management. Short considerations

In terms of diversification of the business environment and increasing competition, the quality is currently an important tool for the substantiation of decisions, and in our opinion, is the most important factor in increasing economic competitiveness of Romanian companies. The relationship quality - competitiveness is determined for any business because we notice that the needs of clients have been varied. Today is no longer enough to satisfy the consumers' needs, but must get the maximum results by exploiting their inclinations for the novelty of product. The quality increase must turn, therefore, in the growth of competitiveness.

Currently the requirements for quality in the EU have increased greatly, it is considered that customer satisfaction is not sufficient to overcome the expectations of promoting the concept, "Beyond Customer Satisfaction". According with this concept, the offered product must exceed customer requirements and the customer must be enthusiastic about the characteristics of the merchandises available on the market. Under these conditions, in our country, in which micro and small enterprises represent 99.73% of the total number of enterprises, the implementation of quality systems became the main condition for survival. (*I. Ionita, model design and redesign processes for implementation of quality management system in SMEs, Journal of General and Applied Economics, No. 8*).

Therefore, with the diversification of trade relations of Romania, it is necessary more than ever to adopt measures to harmonize the quality conditions of Romanian products in order to make them more attractive for export. The relations with the European Economic Area are more than a determinant of compliance with mandatory regulatory requirements of EU policies and instruments of quality management. The delivery and selling of products and services within the European Union must comply with strict European quality standards that are models for assessing the correlation of the degree requirement of consumers.

Approach of quality policy at European level has its roots in creating the European Economic Area dominated by the single market freedoms, which require the adoption of specific policies, uniform for all agencies that operate in its. Competition and the classical laws of the economy are now doubled by new requirements designed to increase the competitiveness of the economy of the European Union. In this connection, the first steps in the technical harmonization were materialized by the decision of the Council of Ministers in 1985 in order to reduce the legislation and to "New Approach". The same challenge is facing the Union today, however, because of the increasing the volume of regulations that are adopted and must be put into practice including quality aspects. With the appropriate legal instruments - regulations, directives and decisions – the EU quality policy quality is bonded and must to be applied as such.

In this context, the European Quality Promotion is designed to create a favorable environment in which companies and public administrations must attain excellence in products and organization, in the interest of clients and society. Through this policy, the image and the European culture of quality is intended to be created in the general context of the development of competitive systems, in each European country, which requires integration and harmonization with the European social space. The organizations for quality certification become guardians "of compliance with quality requirements because we assist at the development of tools and resources, both technical and human, qualified to promote quality in partnerships with economic on vertical line and with other entities in a horizontal approach.

At European level, the issue of quality management is a very current problem and it is indissolubly linked to other size of business success: the competitiveness. The efforts made in this regard were materialized particularly in the communications of European Commission in its White Paper entitled *Growth, competitiveness, employment* that recognize the role of quality as a driving force in the achievement of economic activities which generate high gross value added.

As states and in the European Union's documents, „*the standardization plays an essential role in stimulating competition and growth of SMEs by increasing product quality and consumer confidence. For this reason, the Commission increases the amount of financing aimed at supporting the participation of experts representing the interests of SMEs in the process of developing European standards.* "(European Commission, COM (2007) 592 final, Brussels, 4.10.2007).

2. The role of SMEs in the Romanian economy and community

In Romania, the development of small and medium enterprises sector known new valences in the context of instability of the national economy. Taking in account that the backbone of an economy lies, mostly, on the quality of agents who act on the market, SME policy resulted in a direct and active support from the public authorities. At European level, approaches regarding the support policy of SME sector acquired new valences, when in March 2008, European Council sustained an initiative of the European Commission entitled "Small Business Act (SBA) for Europe", which has the objective of strengthening sustainable growth and competitiveness and the set up of a coherent framework of action for this sector.

Also, an approach of the European Union states that *"Despite encouraging progress, the EU will have to take other important steps that the potential for SMEs to be fully exploited. In general, SMEs in the European Union still have lower productivity and slower economic growth than those of the United States. In this country, survived enterprises increase, on average, their assets by 60% during the first seven years of existence, while in Europe; the increase is around 10% - 20%. SMEs must face to market's disruptions, which worsen their working conditions and competition with other actors in areas such as finance (especially venture capital), research, innovation and environment.* (European Commission, Consider first the small "Priority for SMEs A" Small Business Act "for Europe, COM (2008) 394 final).

The identification and applying of best practices developed at European and international level bring, in the first stage, diverse problems from methods and techniques of production, the qualification level of personnel and the projected level of production, to the qualitative dimensions of activity. The efforts do not stop here however and the experts try to define and implement, at company's level, the concept of "quality work" and to construct a specific indicator for measuring this kind of quality at European level. This indicator should accurately reflect the changes taking place at the micro level and the impact on productivity growth, leading to methods of improving the quality of professional life for employees. Germany is the first state falls into this trend, promoting the new initiative on quality of work - **INQA**.

3. The place of implementation of quality management policies between the priorities of development of SMEs in Romania

According with a recent study conducted by National Agency of Small and Medium Enterprises (NASME) in 2009, regarding the main competitive advantages of SMEs, the quality of products / services offered is the essential factor that differentiate companies as shown in Table. 1

The differentiation of competitive advantage of small and medium enterprises according with organization form

Table 1

Rank	Competitive advantage	Joint stock company	Limited liability company	Other types of enterprises
1	Quality of products and services offered	67.35%	64.77%	62.20%
2.	Price/quality ratio	42.86	41.43	31.92
3.	Distribution channels used	16.33	6.30	4.88
4.	Quality of practiced management	4.08	2.48	8.54
5.	Innovation capacity	4.08	4.55	4.88
6.	Company reputation	12.24	10.43	7.32

Source: *The white book of the small and middle enterprises in Romania, 7th Edition, 2009, CNIPMMR, Bucharest*

The analysis by sector shows that the SMEs which attach the greatest importance to quality of products / services offered are those of tourism (72%), while the lowest importance is given by trade companies (61.72%). Regarding the price / quality ratio, the percentage is the highest in building businesses, and the lowest in tourism. As for the innovative capacity, the percentage is the highest in the services sector (8.82%) and lowest in trade field (3.35%).

This study shows that among the management priorities of SMEs, the implementation of quality management system is found in only 32.2% of firms, a percentage that is below other concerns such as the acquisition of new equipments 36.31%, the diversification of production 41.95% or the boost of the marketing activity 58.14% of companies included in the study etc.

The Differentiation in the development priorities of SMEs is depending also on their age. The table 2 shows this situation.

Table nr.2

Rank	Measures for economic activity's increase	under 5 years	5-10 years	10-15 years	over 15 years
1.	Introduction of quality systems	29.85%	30.72%	37.23%	36.36%
2.	Acquisition of new technique	35.97%	38.26%	39.42%	32.06%
3.	Diversification of production	37.76%	42.61%	48.18%	45.45%
4.	Amplification of the marketing activity	58.93%	56.81%	56.93%	61.72%

Source: *Situation and needs of small and medium enterprises in Romania*, NASME, 2007

Regarding the main competitive advantages that entrepreneurs consider that they have over competitors, the quality of products / services offered is in first place being indicated by 64.70% of companies analyzed, while other benefits such as price-quality ratio in 41.31% of enterprises, innovation capacity (4.55%) or quality of practiced management (3.0%) have a much less importance.

4. The situation of implementation of quality management in small and medium enterprises

The evolution of the economic environment from the European Union is marked by profound economic transformations. The diversification of production, refining demand, increasing customer demands to offer of companies have contributions, on the background of globalization of national economies, to the increased polarization phenomenon of decision's centers. Without remains immune to these phenomena, the Romanian economy is subject to important structural transformations, and economic operators are in an accelerated process of organizational and management changes in order to redefine the position and role they have in the market. The integration into the European economic space entails sustained efforts of local businesses to adopt and implement measures of economic policy, including policy for quality products and services used on the market of the European market.

Although this phenomenon is manifested intensively at all levels of the economy, there are still many companies carrying on a predominantly stereotypical without possession of an appropriate business strategy, enabling them to obtain a high profit, that can reinvest in further diversification of production and a strengthening competitive position on market. The survival and development of small firms under conditions of **tough** competition, on the EU market is only possible when enough efforts have being done, including in financial field, for some products that have to meet increasing customers needs, particularly in quality sector.

Thus, the quality turned into a very important resource for companies. The companies do not produce any longer and anyway, but only those goods and services that meet higher level of requirements. A consequence of increasing interest for quality problem is the development and application of quality management system, which became part of the general management of the company.

Implementation of quality management at companies level has been achieved in the context of increased expectations of products and services valued by the European Union market, where the certification in terms of quality has become the prerequisite to act in this market. So, the certification of quality works as a restriction at the entry on this market. Taking in account the experience of developed economies like the U.S. and Japan, many companies, even if they have programs for well-designed quality control, use of certifications in ISO quality system to increase the credibility they enjoy international markets.

5. State certification of quality systems in SMEs and in the sectors of activity

The certification of quality systems in the small and medium enterprises constitutes a central element in ensuring a favorable competitive position in the market, unfortunately, the Romanian economy and companies, this fact is not fully realized. Regarding the situation of the certifications achieved, according to a survey conducted in 2007 by us, only 52% of SMEs have introduced a quality management system, and 10.6% of companies are in an implementation process. The survey highlighted a direct correlation between class size of the enterprises and the certification of quality management system.

The best situation is specific to medium enterprises where more than 50% of them have implemented or are implementing the quality systems. The micro enterprises have a situation that is practically difficult to correct in a short time, and this case is serious because they represents 88.43% of SMEs As regards the categories of quality systems certified, from 42% of the SMEs that have implemented quality systems, 75.3% are in category of standard ISO 9001 and only 34.7% hold certification on environmental standard ISO 14000.

6. Perception of quality by managers of firms

Trying to find an explanation to this situation of the SMEs in our country, we preceded to an interview the managers of SMEs from Bucharest and Dambovita county. Conclusions drawn from the study show that a good part of the managers of SMEs surveyed are unaware of the beneficial effects of quality management system on profitability and long-term development. They accept the quality as a socially desirable goal, but its contributions to business profitability are considered marginal. Another part of the managers have appreciated that implementation of a quality management system is beneficial only to large enterprises.

This perception is due to wrong concepts on which we stop below.

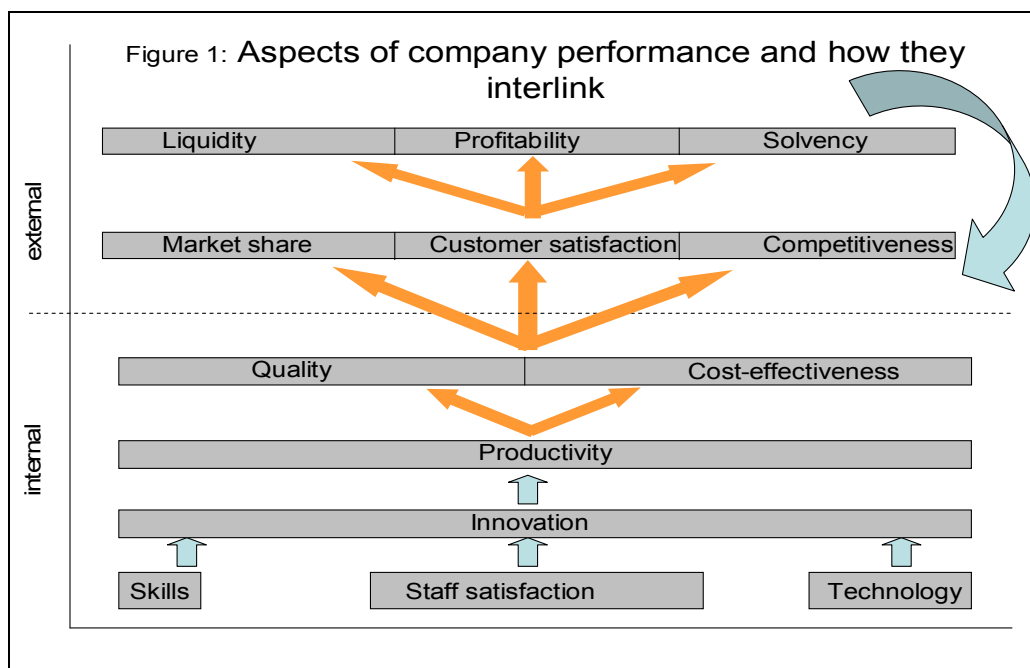
a). The quality is expensive; this is the most widespread concept on quality. Obviously, the concept is false. The researches carried out on mechanism of design and implementation of quality and manufacturing processes have shown that higher quality does not always cost more. In this respect, it is important to understand what constitutes a quality of a product in the modern mass production. Based on market requirements, the quality is first defined and translated into a project, which is then materialized into a real product through a manufacturing process. Of course, this means investing more resources in research and development but the

result is the increase in product quality and thereby increases of market outlets. At the same time, the improvement of manufacturing processes may generate an increase in labor productivity and a substantial reduction in the medium costs of production, which will permit the pay back of the additional investment and the **record of net profit**.

Confirming the historical experience of the increasing competitiveness, the Economic and Social Committee noted in the notice on promoting sustainable productivity of labor in Europe:

„In Europe, the economic growth has traditionally depended on the volume of employment, level of investment in means of production and increasing level of education. This model no longer works today as well as in the past [...] For enterprises, the productivity growth is crucial, as is the key to their competitiveness. Because global markets in good measure, determine prices, and productivity cannot increase indefinitely by traditional investment in machinery and equipment, other means must be used. In this respect, it is consider that quality becomes a decisive factor in ensuring the growth of competitiveness for companies. The investment in quality implies a broader process of reconfiguration of mentalities rather than the processes of production itself.

Schematically, the grade of company's performance of a company is shown in Figure 1



Source: Adapting from European Economic and Social Committee, *Promoting the durability and productivity of the work in Europe, 2007*

According to a U.S. study on the relationship between quality, market share and investment recovery, for the 1200 companies, the result was that, for the same market share, the payment back of investment increases proportionately with the level of product quality and the value added by a quality management system exceeds the resources that a company allocates for this purpose.

Also, by implementing quality system in Romanian, a new culture develops, „Competitiveness's culture through quality”, which in turn develops the general management of the organization, enriching it with quality management.

The development of quality Romanian culture, the companies have another chance to become competitive in relation to competitors in the EU and, for the Romanian state, the quality becomes a crucial factor in enhancing prosperity and international respect.

b) The focus on quality creates a reduction in labor productivity – that is a concept encountered very often among the leaders of organizations, who say that quality is obtained only if the quality is reduced. This view is a legacy of the period when quality control is exclusively a physical inspection of the finished product. However, currently, in terms of quality control, the preoccupations consist in prevention of unconformities from design and manufacturing stages; in this way, from the project initiation, manufactured defective products cannot be obtained. The efforts to increase the quality and to maintain the quantity have become complementary with high productivity.

c) The quality is affected by poor training of the workforce – that is an excuse that some manufacturers often invoke to justify the poor quality of products, by blaming the lack of training and conscientiousness of workers. Such an assertion is correct, and the workers may be responsible for the quality achieved only if the leadership provides the staff training in this regard, has thoroughly instructed workers about what to do, has established a means of verification or evaluate the results and has provided means to adjust equipment or processes in situations where results are found unsatisfactory.

d) The quality can be ensured only through a strict verification –that is saying many producers. It is known that verification was the first formal mechanism for quality control and most manufacturers still believe that strict verification can improve quality. The verification itself only leads to good separation of good parts from the scraps. Several studies have shown that 60-70% of the deficiencies found in the sections of production are assigned directly or indirectly to gaps in areas such as design, technology, supply and that almost all activities of inspection and quality control are directed to the sections production, the design being out of control.

The current situation of SMEs from our economy emphasize that most manufacturers or suppliers who wish to carry quality products make effort in order to verify and fix defects and scraps during manufacture's processes. But as we said, the control cannot resolve the quality product, it depends on how the product was designed and manufactured. Therefore, the awareness of quality should start from the idea of designing a product, when the customers' needs are identified. This conscious effort to achieve the quality must pass through different stages, from design to manufacturing and delivery, and even the consumer, the ultimate aim being to obtain a favorable reaction from consumers.

Today, with more in the future, the major manufacturers in Europe and North America require suppliers to prove their capability to produce the required quality and meet the commitments and deadlines for delivery. Therefore, the quality system ISO 9001 in SMEs from Romania, who mostly do the export of products components, has become an inevitable necessity for start and support a business on international markets.

e) The Standards ISO 9000 can be implemented effectively only within large enterprises because this activity is involving the preparation of a specific documentation, that is not feasible in small businesses. This erroneous assessment was invalidated by the experience in England and Japan, which have the largest number of companies certified on family of standards ISO 9000. Even if SMEs do not get benefits, in absolute terms as important as the

large companies, the yield of investment for implementing the quality system is high due to the advantages they have; these advantages allow them to implement easier and more efficient a system of quality management.

These advantages can be summarized as follows:

- ✚ high reaction speed, since the innovative ideas are implemented in a faster pace;
- ✚ reorientation and training of staff for work with the new procedures and methods are more easily achieved;
- ✚ channels of communication and information circuits are shorter and simpler;
- ✚ there are fewer bureaucratic procedures involved between the innovative idea and market;
- ✚ Employees quickly acquire the ability to make decisions as a result of the authority and responsibility granted to them more easily than in the case of large enterprises;
- ✚ Employees tend to form teams with a greater cohesion than in the case of large enterprises.

7. The benefits of implementation and certification of quality management system

The implementation and the certification of quality system in the companies bring a number of important elements. At the level of a company, the determinants for implementation and the certification of quality management system are multiple and its can be external and internal reasons.

In the category of external reasons, we can enumerate a series of determinations. For example, more and more customers and business partners requires to suppliers the submission of evidence of the existence and effective functioning of the system of quality management as a guarantee of the application of standards and performance achieved by the company. The certification of the supplier on quality management system ensures the credibility of clients that this company has the conditions to fabricate the products according with the requisite parameters.

In addition, the certificate of quality has now become a crucial element in concluding contracts, especially those made by the public auction. According to the text of Article 33 of Directive 92/50/UE of 18 June 1992 on the coordination of procedures for the granting of orders in the public sector, some restrictions are established for public institutions to entrust enforcement to work only to firms that have been certified based on series of standards ISO 9000 by an accredited certification body. This restriction was imposed, in the meantime, in our country, through Law 337/2006, which was at the base of approval GEO nr.34/2006 on award of tender, the transfer of public works and concession contracts for services.

In conclusion, it can be said that external motivation for implementation of quality certification system is the need to establish a relationships of trust between customers and suppliers (with consequences for reduction of obstacles for the international trade) that only a quality system certificate is able to provide.

In the category of internal determinants to implement and certify a quality management system can mention more considerations. Firstly, through a certification audit is confirmed the functionality of quality management system and, its ability to prevent production of unconformities, to reduce afferent costs and to achieve permanent improvements. The auditors of certification bodies examine the system from the required distance, i.e. objective, because

they have considerable practical experience. Initiatives resulting from the audit process may contribute to permanent improvement of quality management system.

Secondly, the certificate and the competitiveness associated have a direct influence on employees' work, because its existence determines the perception of employees on the work's results. The building of a functional quality management system, the development of this system until maturity required by certification and the positive evaluation carried out by an external body recognized bring with its a motivation of the company staff.

8. Conclusions

The increasing diversification of the business environment and the intensification of competition make the quality of products/services the most important factor in ensuring economic competitiveness. Therefore, the integration in the European Economic Area involves efforts from local businesses to adopt and implement a quality policy to promote quality management systems. Given the conclusions of the studies presented, and the reality of our economy, we can finally make some general remarks about the benefits of certification of quality systems based on ISO standards.

The certification of quality system by independent bodies with a recognized prestige may constitute evidence of the superiority of the organization over the competition as a result of the existence of an effective quality system, capable of ensuring, in a constant mode, the production of goods that meet the requirements of customers.

A certificated quality system provides greater confidence to the organizations leaders that all processes and activities are kept under control, and the results obtained will be included in the forecasts made.

By implementing the quality management standard based on ISO 9001:2008, standard, the Romanian SMEs will be included in the overall trend at domestic and international level: the increase of competitiveness by assurance of the quality of products, services and works executed, which will enable increased efficiency and gain a better place on the EU market.

If for some organizations in our country, these advantages were not manifest at the level of expectations, the cause does not reside within the quality system, but how it was put into practice. The certification of the quality system of a firm does not mean automatically that all products and services delivered will have no deviations from the requirements set. Such a certificate can only show that conditions for conducting the processes of organization was provided, from research to market to operational supervision of the beneficiary to meet the conditions of certification. After certification, the organization must be made continuous improvement efforts of all processes, avoiding the appearance of unconformity on the entire cycle of manufacturing and shipping of the product.

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The Analysis of the Tourist Circulation Manifested in the Constanta County during 2005 – 2008

Daniela Simona NENCIU

nenciu75@yahoo.com

Mirela SECARĂ

mirela_secara@yahoo.com

„Dimitrie Cantemir” Christian University, Constanța

Abstract

During 2005 – 2008, the tourist circulation in Constanta County is characterized by a slight evolution of the tourists' number, tourists arrived in this area and their overnight stays in the tourist reception structures with housing functions. Although this county represents an attractive destination for those who practice the seaside tourism, the tourism entrepreneurs should apply new marketing strategies in view of conceiving tourist products capable of fully satisfying the tourists exigencies.

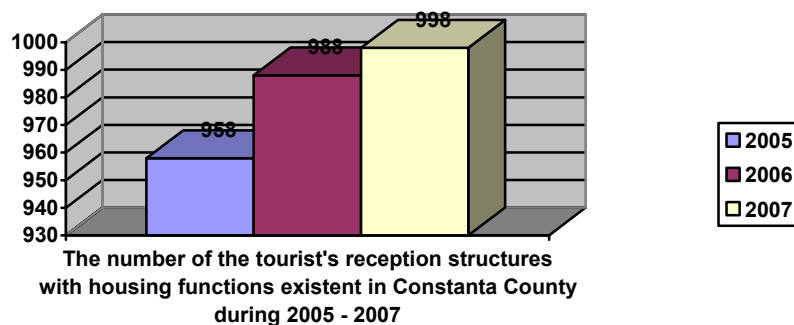
Key words: tourist circulation, indicators, strategy, destination.

JEL Code: L83 Tourism

1. Introduction

In the last fifteen years, due to different factors, the Romanian seaside tourism has registered a regression, and the Constanta County has no longer represented an interesting destination for many foreign tourists. The entrepreneurs in this area have mainly followed obtaining significant income without major investments in the tourist structures and without being preoccupied mainly about the quality of the services and products they commercialize.

Indicators of the tourist offer



Source: Processing onto the data base taken from the statistic yearbook of Constanta County 2008, taken from www.constantainnsse.ro

At the level of the year 2007 it has been registered an increase of the number of tourist reception structures with housing functions of 4,18% comparatively to the year 2005.

The indicator of the time variation of the total housing capacity

$I = (\text{no. housing places in the year } n / \text{no. housing places in the year } n-1) \times 100$

$I = (\text{no. housing places in the year 2006} / \text{no. housing places in the year 2005}) \times 100$

$I = 988 / 958 \times 100 = 103,13 \%$

$103,13 \% - 100\% = 3,13 \%$

At the level of the year 2006 it has been registered an increase of the number of housing places of 3,13 % comparatively to the previous year.

$I = (\text{no. housing places in the year 2007} / \text{no. housing places in the year 2006}) \times 100$

$I = 998 / 988 \times 100 = 101,01\%$

$101,01 \% - 100\% = 1,01 \%$

At the level of the year 2007 it has been registered an increase of the number of housing places of 1,01 % comparatively to the previous year.

Types of tourist reception structures with housing functions existent in Constanta County during 2005 – 2007

Years	2005	2006	2007
Total (no.)	958	988	998
Hotels	322	329	334
Hotels for the youth	3	7	7
Hostels	4	6	6
Inns	-	-	-
Tourist chalets	1	1	1
Camping	45	48	47
Tourist villas and bungalows	514	511	513
School and pre-school children's camps	13	13	13
Urban board and lodging	42	42	44
Rural board and lodging	31	31	33

Source: The statistic yearbook of Constanta County 2008, taken from www.constantina.insse.ro

During the analyzed period, the largest share of the tourist reception structures with housing functions total, is that of the tourist villas and bungalows (53,65% at the level of 2005, 51,72% at the level of 2006 and 51,40% at the level of 2007). In second place there are the hotels (with shares of 34,66% at the level of 2005, 33,30% at the level of 2006 and 33,47% at the level of 2008) followed by camping.

The existing housing capacity in Constanta County during 2005 – 2007 (no. of places)

Years	2005	2006	2007
Total (no.)	121067	122671	121717
Hotels	77592	78015	78287
Hotels for the youth	309	609	609
Hostels	230	288	288
Inns	-	-	-
Tourist chalets	40	40	40

Years	2005	2006	2007
Camping	21155	21994	21962
Tourist villas and bungalows	10759	10603	10495
School and pre-school children's camps	9348	9348	8200
Urban board and lodging	889	1009	1055
Rural board and lodging	745	765	781

Source: The statistic yearbook of Constanta County 2008, taken from www.constantainssse.ro

The share of the housing places in the hotels, in total housing places:

$$P = (\text{total no. of housing places in hotels} / \text{total no. of housing places}) \times 100$$

The share of the housing places in the hotels, in total housing places, in 2005:

$$77.592 / 121.067 \times 100 = 64,09 \%$$

At the level of 2005, the share of the existent housing places in the hotels, in the total of the housing places has been of 64,09%.

The share of the housing places in the hotels, in total housing places, in 2006:

$$78.015 / 122.671 \times 100 = 63,60 \%$$

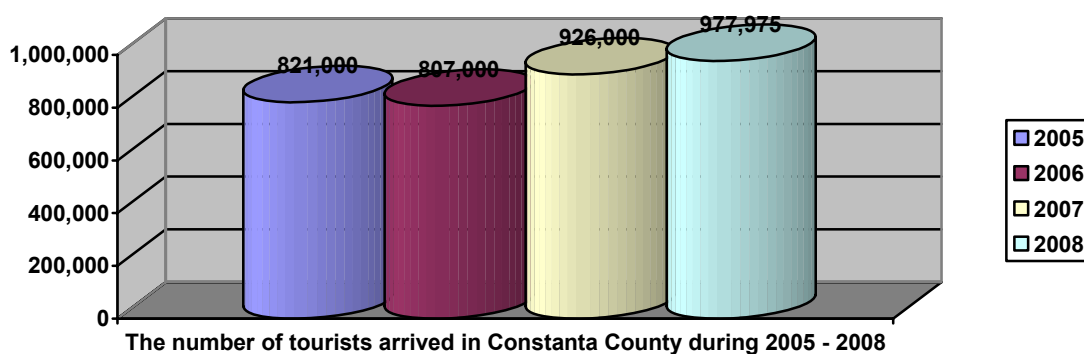
At the level of 2006, the share of the existent housing places in the hotels, in the total of the housing places has been of 63,60 %.

The share of the housing places in the hotels, in total housing places, in 2007:

$$78.287 / 121.717 \times 100 = 64,32 \%$$

At the level of 2007, the share of the existent housing places in the hotels, in the total of the housing places has been of 64,32 %.

3. Indicators of the tourist demand



Source: Processing onto the data base taken from the statistic yearbook of Constanta County 2008 and the monthly statistic Bulletin 01/ 2009, taken from www.constantainssse.ro.

The indicator of the time variation of the tourist demand

$$Ivc = (\text{the number of tourists arrived in the year 1} / \text{the number of tourists arrived in the year 0}) \times 100$$

$$Ivc \text{ 2006/2005} = (807.000 \text{ tourists} / 821.000 \text{ tourists}) \times 100 = 98,29 \%$$

$$98,29 \% - 100\% = - 1,71 \%$$

In 2006, the number of tourists who came to Constanta County, as a tourist destination, has decreased with 1,71% comparatively to the year 2005.

$$Ivc \text{ 2007/2006} = (926.000 \text{ tourists} / 807.000 \text{ tourists}) \times 100 = 114,75 \%$$

$114,75\% - 100\% = 14,75\%$

In 2007, the number of tourists who came to Constanța County, as a tourist destination, has increased with 14,75% comparatively to the year 2006.

$I_{vc} 2008/2007 = (977.975 \text{ tourists} / 926.000 \text{ tourists}) \times 100 = 106\%$

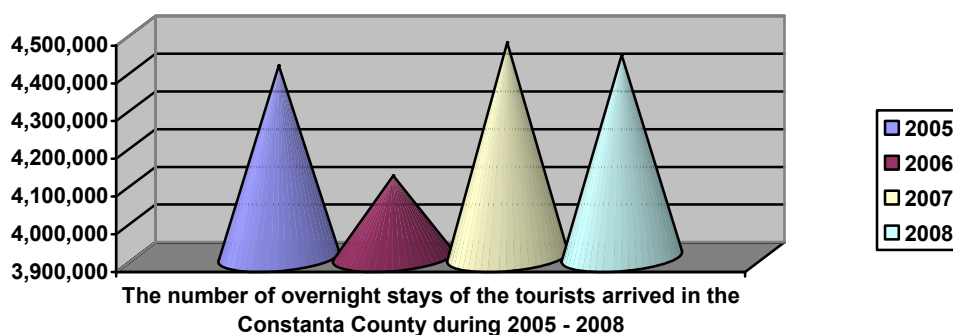
$106\% - 100\% = 6\%$

In 2008, the number of tourists who came to Constanța County, has increased with 6% comparatively to the year 2007. The Romanian seaside, once a favorite summer tourist area, both for the Romanian as well as for the foreign tourists from Western Europe, has lost part of the tourists' interest. The seaside resorts are confronted with a decrease of the extern tourist demand as the tourist's products and services offer has not manage to rise at the level of the more and more sophisticated exigencies of the foreign tourists. With the fragmented property and without a clear strategic direction, the entrepreneurs of the seaside resorts have not managed to answer to the exigencies manifested on the tourist's market and face at present a series of problems.

The difficulties faced by the companies in the Romanian seaside tourism refer to⁴⁹:

- # housing places mostly of low quality in most tourist's reception structures;
- # a very short high season, fact that determines the entrepreneurs to adopt uncompetitive prices up to the level of the profitability threshold;
- # the impossibility of attracting and keeping professional personnel for a short season;
- # a great competition between hotels and the lack of collaboration from the entrepreneurs in attracting tourists;
- # tourist's services for leisure and entertainment activities insufficient in satisfying the current market demands;
- # limited vision of the caterers who capitalize the growing demand of the week-end visitors and they loose businesses with groups of tourists who are buying longer stays;
- # beaches erosion;
- # poorly maintained public infrastructure;
- # traffic congestion in summer time mostly, and especially at the week-end and insufficient parking spaces;
- # conflicting interests of the beach concessionaires and the suppliers of housing tourist's services;
- # lost of most of the charter operations at Kogălniceanu Airport.

In the last years significant investments have been done in the modernization of hotels and for ensuring some facilities within them, for example treatment and wellness, the setting up of some rooms for conferences, etc. which can contribute to the extension of the season. Still these welcome investments can not solve the fundamental issues which face the entrepreneurs of this area.



Source: Processing onto the data base taken from the statistic yearbook of Constanța County 2008 and the monthly statistic Bulletin 01/ 2009, taken from www.constantainss.ro.

⁴⁹ http://www.mturism.ro/fileadmin/mturism/noutati/masterplan_efg.pdf, p. 273-274.

Average stay

S = no. of overnight stays / no. of arrived tourists

The average stay realized in 2005:

$$S = 4.408.000 / 821.000 = \mathbf{5,37 \text{ days /tourist;}}$$

The average stay realized in 2006:

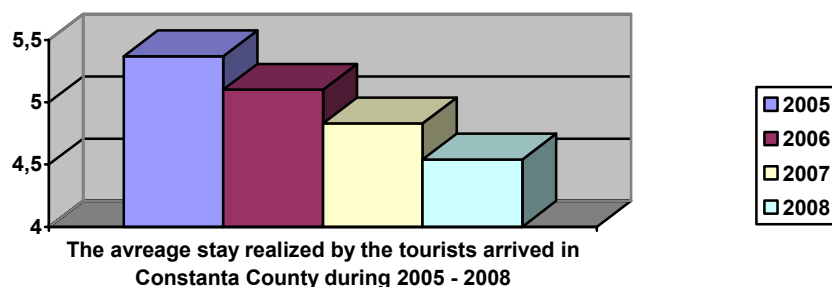
$$S = 4.116.000 / 807.000 = \mathbf{5,10 \text{ days /tourist;}}$$

The average stay realized in 2007:

$$S = 4.469.000 / 926.000 = \mathbf{4,83 \text{ days /tourist;}}$$

The average stay realized in 2008:

$$S = 4.435.702 / 977.975 = \mathbf{4,54 \text{ days /tourist;}}$$

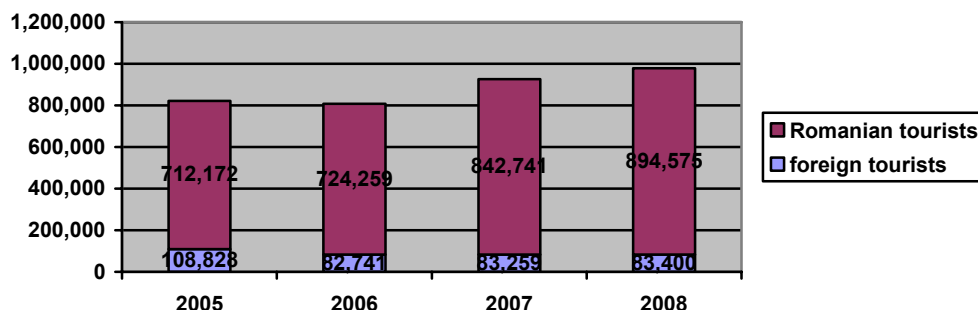


Source: Processing onto the data base taken from the statistic yearbook of Constanta County 2008 and the monthly statistic Bulletin 01/ 2009, taken from www.constantainsse.ro.

During 2005 – 2008 the average stay has registered a slight decrease from one year to another, fact explained by the tourists' tendency of practicing weekend tourism in the average and long stays' detriment.

Although a series of investments have been done, this is the case of Mamaia resort especially, and the seaside attracts, during summer, a significant number of tourists who practice *the weekend tourism, still the offer of products is so not diversified* and is not according to the taste tendencies and tourists' preferences. The tourists from Germany and Scandinavian Countries who used to be oriented toward the Romanian seaside, as a tourist's destination, are currently oriented to competent destinations from the Mediterranean Sea and the Aegean Sea, as well as towards Croatia and Bulgaria. At present the entrepreneurs in this area, as well as the authorities in the tourism's area, take sustained efforts in order to re-launch tourism in this region, **by conceiving and applying some strategies that have as purpose transforming the seaside into a competitive destination.**

4. Indicators of the demand – offer relation



The number of resident and foreign tourists who chose Constanta County as a tourist's destination during 2005 – 2008

Source: Processing onto the data base taken from the statistic yearbook of Constanta County 2008 and the monthly statistic Bulletin 01/ 2009, taken from www.constantainsse.ro.

The share of the resident tourists of the total of the tourists arrived in Constanta County

$P_{\text{Romanian}} / \text{Tourists' total} = (\text{no. of Romanian tourists in the reception tourists' structures, in the year 1} / \text{no. of tourists in the reception tourists' structures, in the year 1}) \times 100$

The share of the resident tourists of the total of the tourists arrived in Constanta County in 2005

$P_{\text{Romanian}} / \text{total tourists} = 712.172 / 821.000 \times 100 = 87 \%$

In 2005, the Romanian tourists have represented 87 % of the total of tourists' who chose as tourists' destination the Constanța County.

The share of the resident tourists of the total of the tourists arrived in Constanta County in 2006

$P_{\text{Romanian}} / \text{total tourists} = 724.259 / 807.000 \times 100 = 90 \%$

In 2006, the Romanian tourists have represented 90 % of the total of tourists' who chose as tourists' destination the Constanța County.

The share of the resident tourists of the total of the tourists arrived in Constanta County in 2007

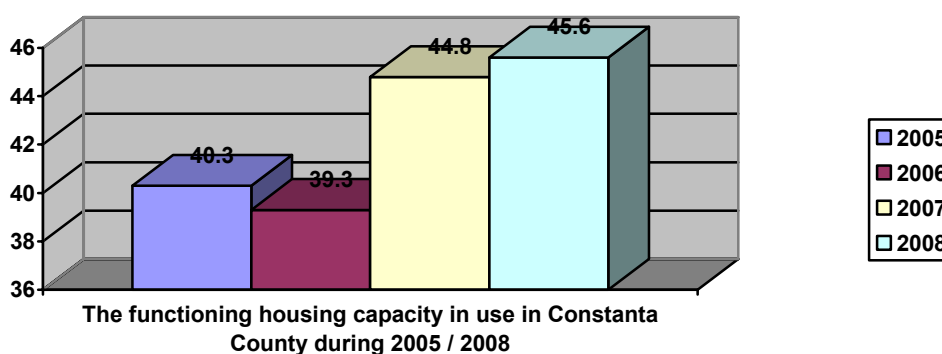
$P_{\text{Romanian}} / \text{total tourists} = 842.741 / 926.000 \times 100 = 91,01\%$

In 2007, the Romanian tourists have represented 91,01 % of the total of tourists' who chose as tourists' destination the Constanța County.

The share of the resident tourists of the total of the tourists arrived in Constanta County in 2008

$P_{\text{Romanian}} / \text{total tourists} = 894.575 / 977.975 \times 100 = 91,47 \%$

In 2008, the Romanian tourists have represented 91,47 % of the total of tourists' who chose as tourists' destination the Constanța County.



Source: Processing onto the data base taken from the statistic yearbook of Constanta County 2008 and the monthly statistic Bulletin 01/ 2009, taken from www.constantainssse.ro.

During 2005 – 2008 the highest degree of use of the functioning housing capacity has been registered at the level of 2008.

The tourist's density in report with the population = no. of arrived tourists / the county's population

The tourist's density in report with the surface = no. of arrived tourists / the county's surface

The tourist's density of Constanta County, in 2005

The tourist's density in report with the population
 $\Delta t = 821.000 \text{ tourists} / 715.148 \text{ locuitori} = 1,15 \text{ tourists} / \text{inhabitant}$

The tourist's density in report with the surface
 $\Delta t = 821.000 \text{ tourists} / 7071 \text{ km}^2 = 116,11 \text{ tourists} / \text{km}^2$

The tourist's density of Constanta County, in 2006

The tourist's density in report with the population
 $\Delta t = 807.000 \text{ tourists} / 716.576 = 1,13 \text{ tourists} / \text{inhabitant}$

The tourist's density in report with the surface
 $\Delta t = 807.000 \text{ tourists} / 7071 \text{ km}^2 = 114,13 \text{ tourists} / \text{km}^2$

The tourist's density of Constanta County, in 2007

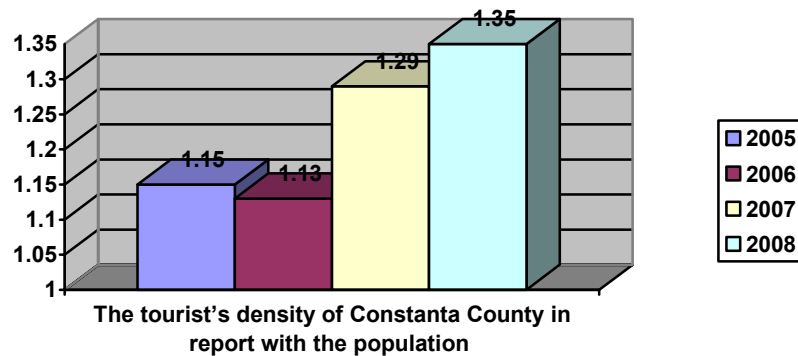
The tourist's density in report with the population
 $\Delta t = 926.000 \text{ tourists} / 718.330 = 1,29 \text{ tourists} / \text{inhabitant}$

The tourist's density in report with the surface
 $\Delta t = 926.000 \text{ tourists} / 7071 \text{ km}^2 = 130,96 \text{ tourists} / \text{km}^2$

The tourist's density of Constanta County, in 2008

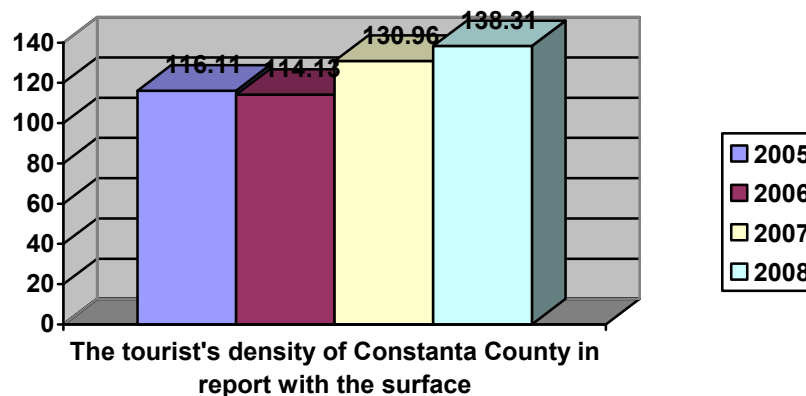
The tourist's density in report with the population
 $\Delta t = 977.975 \text{ tourists} / 721.896 = 1,35 \text{ tourists} / \text{inhabitant}$

The tourist's density in report with the surface
 $\Delta t = 977.975 \text{ tourists} / 7071 \text{ km}^2 = 138,31 \text{ tourists} / \text{km}^2$



Source: Processing onto the data base taken from the statistic yearbook of Constanta County 2008 and the monthly statistic Bulletin 01/ 2009, taken from www.constantainsse.ro.

During 2005 – 2008 the highest value of the tourist's density in report with population it has been registered at the level of 2008 (1,35 tourists / inhabitant).



Source: Processing onto the data base taken from the statistic yearbook of Constanta County 2008 and the monthly statistic Bulletin 01/ 2009, taken from www.constantainsse.ro.

During the analyzed the highest value of the tourist's density in report with the surface it has been registered at the level of 2008 (138,31 tourists / inhabitant).

5. Conclusions

The increase of the services' quality and the diversification of the services offer should represent primordial objectives for the tourism's entrepreneurs from Constanta County. Thus the resorts of the Romanian seaside will be able to be included in the international tourist's circuits, shall be able to satisfy an exigent external demand regarding comfort, tourist's services quality and security.

Also the entrepreneurs of the Romanian seaside tourism should give a special attention to personnel policy which should refer to: attracting workers prepared for this area, to make them faithful by different means of stimulation and granting facilities to the employees who render high quality services, sustaining periodic training of the area's employees. Adopting some attraction strategies, making faithful and stimulating the personnel employed in tourism, that shall determine, in time, the increase of the employees' services rendering, fact that shall lead to attracting tourists and making them faithful.

The sustainable development of the tourist's products, the continuous addaption to the market's changes, the application of some marketing strategies grounded on market studies rigorously realized, represents the main action directions in the development of tourism companies from Constanta County and imposing this county's image in the international market as a tourist's destination well personalized and differentiated from the other competitive destinations.

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How to Be a Good Entrepreneur in Our Days? Just Follow an Excellent Business Plan!

Emilia UNGUREANU
emiliaungureanu@yahoo.com
Felix-Constantin BURCEA
felixburcea@yahoo.com
University of PITESTI

Abstract

Entrepreneurship is the process of creating something different with value by devoting the necessary time and effort, assuming the accompanying financial, psychic, and social risks, and receiving the resulting rewards of monetary and personal satisfaction. If you want to be a good entrepreneur in our days you must find a good niche and make an excellent business plan. We will present in this study one start-up business plan, based on internet attraction and the needs of the clients to buy specific products at late hours. The niche that we found is to provide services for online home shopping.

Keywords: entrepreneur, business plan, start-up business, niche, online shopping.

JEL Code: M13, M21, M3, M41, Y10.

1. Introduction

The actual situation – a crisis period – has determined, in Romania, the disappearance of non-productive businesses and has forced the majority of entrepreneurs to be more careful. But, the one's who will find a good niche business, adequate to current requirements, will obtain remarkable results.

In my opinion, the online-businesses in Romania are not well exploit and if we do a good market research we can find a good niche. The business I want to open is a online night shop. It will cover an unexploited niche of the Romanian market, especially in Pitesti, until now, in the area of Food and Beverage online shops , our business being the first of this type. After finding the niche, we must be very careful when we do the business plan. The real value of creating a business plan is not in having the finished product in hand; rather, the value lies in the process of researching and thinking about your business in a systematic way. The act of planning helps you to think things through thoroughly, study and research if you are not sure of the facts, and look at your ideas critically. It takes time now, but avoids costly, perhaps disastrous, mistakes later.

2. Entrepreneurs and entrepreneurship

The term *Entrepreneur* comes from the French and literally translated means “between-taker” or “go-between”. To understand better this concept, i chose to present some definitions used from Middle Ages until our days:

- ✚ Middle Ages: actor and person in charge of large-scale production projects;
- ✚ -17th century: person bearing risks of profit (loss) in a fixed price contract with government;

- # 1725: Richard Cantillon⁵⁰ - person bearing risks is different from one supplying capital;
- # 1803: Jean Baptiste Say⁵¹ - separated profits of entrepreneur from profits of capital;
- # 1876: Francis Walker- distinguished between those who supplied funds and received interest and those who received profit from managerial capabilities;
- # 1934: Joseph Schumpeter: entrepreneur is an innovator and develops untried technology;
- # 1961: Davis McClelland- entrepreneur is an energetic, moderate risk taker;
- # 1964: Peter Drucker – entrepreneur maximizes opportunities;
- # 1975: Albert Shapero- entrepreneur takes initiative, organizes some socioeconomic mechanisms, and accepts risk of failure;
- # 1980: Karl Vesper –entrepreneur seen differently by economists, psychologists, businesspersons, and politicians;
- # 1985; Robert Hisrich – entrepreneurship is the process of creating something different with value by devoting the necessary time and effort, assuming the accompanying financial, psychological, and social risks, and receiving the resulting rewards of monetary and personal satisfaction.

In the middle of the 20th century, the notion of an entrepreneur as an innovator was established:

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 production a new commodity or production 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.

“An entrepreneur is a person who is willing to take risks in order to obtain positive results.”

"Entrepreneurs innovate. Innovation is the specific instrument of entrepreneurship. It is the act that endows resources with a new capacity to create wealth. Innovation, indeed, creates a resource." (Drucker, 1985).

"Perceived opportunities are contrived from the entrepreneur's assessment of the 'waste' in existing resource combinations." (Kirzner, 1973)

"Entrepreneurship is the process of acquiring, assembling, and deploying resources in the pursuit of perceived opportunities for long-term gain." (Bowman & Upton, 1991)

"Entrepreneurship is the discovery of new combinations of resources under uncertain situations that generate entrepreneurial rent as reward for risk taking." (Rumelt, 1987)

"A firm-creating entrepreneur creates and perhaps operates a new business firm, while an innovating entrepreneur transforms inventions and ideas into economically viable entities." (Baumol, 1993)

Entrepreneurship is the process of creating something different with value by devoting the necessary time and effort, assuming the accompanying financial, psychic, and social risks, and receiving the resulting rewards of monetary and personal satisfaction.

3. A good business plan- the key for success in our days

Business plan is a formal statement of a set of business goals, the reasons why they are believed attainable, and the plan for reaching those goals. It may also contain background information about the organization or team attempting to reach those goals. (wikipedia)

⁵⁰ Richard Cantillon (1680-1734), acknowledged by many historians as the first great economic "theorist"

⁵¹ Jean-Baptiste Say (5 January 1767 – 15 November 1832) was a [French economist](#) and businessman. He had classically liberal views and argued in favour of [competition](#), [free trade](#), and lifting restraints on business. He originated [Say's law](#), which is often quoted as "supply creates its own demand".

The real value of creating a business plan is not in having the finished product in hand; rather, the value lies in the process of researching and thinking about your business in a systematic way. The act of planning helps you to think things through thoroughly, study and research if you are not sure of the facts, and look at your ideas critically. It takes time now, but avoids costly, perhaps disastrous, mistakes later.

Business plan is a generic model suitable for all types of businesses. It also has tips for fine-tuning your plan to make an effective presentation to investors or bankers. If this is why you're creating your plan, pay particular attention to your writing style. You will be judged by the quality and appearance of your work as well as by your ideas. It typically takes several weeks to complete a good plan. Most of that time is spent in research and re-thinking your ideas and assumptions. But then, that's the value of the process. So make time to do the job properly.

And finally, be sure to keep detailed notes on your sources of information and on the assumptions underlying your financial data.

4. Starting-up business – night online shopping

Enterprise name : FELIX MONDO CORPORATE SRL

Business plan – starting-up business – night online shopping

Business name: Night Shop Friend

Owner:

- BURCEA Felix

Address : Pitesti , Trivale str., bloc 1b, app. 15, Arges, Romania

Telephone: +4 0727 796026

E-mail: felixburcea@yahoo.com

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4.6. Operational Plan

4.7. Management and Organization

4.8. Startup Expenses and Capitalization

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4.2. Executive Summary

The business we want to open is a online night shop. It will cover an unexploited niche of the Romanian market, especially in Pitesti, until now, in the area of Food and Beverage online shops , our business being the first of this type. Pitesti, the place of my business, is growing and developing every day; with an intense night life it appeared the necessity of a nonstop shop from where you can buy all you need for a party at every hour in the night and if it's possible to have all your purchases to your door.

We analyzed this trend and by making market research we get to the conclusion that an online shop represents a profitable business. We designed our business in order to help people making shopping at late hours in the easiest way only by a click. What can be easier than accessing a web page (www.nightshopfriend.ro), chose from an attractive catalogue of products (cigars,

drinks and complementary products) and have all of them at your door in maximum 15 minutes. Our business philosophy is to satisfy our clients and we rely on the saying: "A friend in need is a friend indeed" - we will be the BATMAN of our clients : we only need a signal from them and we will be there in no time.

In comparison with our indirect competitors, due to the fact that we are the first of this kind on this market, we have like advantages: free home delivery, credit card payment, saving time, accessible prices and also our company recognition to the loyal clients. I want to project the image of a high quality service company, so our clients can see our business like a structure that provide them, not only comfort, but also originality.

4.3. General Company Description

Based on internet attraction and the needs of the clients to buy specific products at late hours, the night shop will be a good business. The Romanian entrepreneurs are looking for narrowed niches, which they can explore and the segment of electronic commerce is becoming an area that requests originality.

After the success of the sites : "cafele.ro" and "hamacuri.ro" we are thinking of launching an unique on-line shop with night sales (between 8 p.m. – 5 a.m.), which we are proud to say that is the first of it's kind in our city. The launching of nightshopfriend.ro has the purpose to cover an unexplored niche until now, at least in the area of online shops.

After a deep research of the market, we come to the conclusion that the non-stop shops are more than insufficient to cover the request of the 300.000 people from an European city like Pitesti. Relying on the internet's attraction and on the clients need to get specific products, even at very late hours, we are launching this special on-line shop which is designed to work non-stop between 20.00 p.m. and 05.00 a.m.

The image and reputation are the two main conditions for the success of an on-line shop. This is why the difference between what our shop has to offer and other non-stop ones is the fact that we deliver our merchandise directly to the clients home. This is one of the competitive advantages of our business. Anyone can access on-line our site in order to acquire our products without leaving their residence late at night. It takes less than two minutes and we will do the rest.

Mission Statement

"A friend in need is a friend indeed"

The mission of Night Shop Friend is very simple :

- ✚ serving our clients as fast and better as we can
- ✚ we will be the Batman of our clients, all they have to do is give us the signal and we will be there in no time.

Company goals and objectives

After a market research we came to the conclusion that the lack of non-stop online shops and the growing interest of internet exploring are making from Pitesti the best choice for our business siege.

Like a goal destination, we want to make our business the best example for the other entrepreneurs to follow. Also we want to maintain ourselves on top of the market and we want to bring satisfaction to our customers.

Objectives: -until the end of December, the company is expecting to have at least 50 orders witch implies a good start.

- ✚ our following objective is to have our first 20 loyal customers by the first month
- ✚ we expect a monthly grow of 5%
- ✚ after the first year the company want to expand the activity in order to deliver also fast-food products.

Like specific measures of customer satisfaction we will be always on time with our deliveries, we will offer the possibility to choose the payment: cash or credit card. Also for the customers we want to enlarge our types of products after one year.

Our business philosophy:

The image and the respect in our business will represent the two main conditions for the success of this online-shop.

In our company it is important to bring maximum satisfaction to our clients because our behavior towards them will bring us the reputation and attract their respect and loyalty.

Our customers:

Our main customers will be exigent ones like: local and foreign business man, persons that want to benefit very fast of our products. Also we bet on the persons who organize family events or night parties. Because of the fact that internet is mostly explored by young people we think that they will represent one important segment of customers.

Describing our industry

We describe our industry as being unexploited yet, but with great growing in the future. Due to the fact that in the big European cities there are many non-stop shops which are ready to satisfy customer demands, even at very late hours, we realize that now, by being part of European Union, this kind of requests will grow fast in the next year. Based on attractiveness of internet, on the vast on-line industry, it's fast development in time and due to the fact that we live in a very dynamic world in which time is very precious and expensive, we foresee that this industry will develop in a rapidly way on a tremendous short period of time. Our company will take advantage of all the above mentioned characteristics by using new strategies and the technology of the future and as a main consequence our business will be on long term one of the most developed.

Most important company strengths and core competencies.

Factors that will make the company succeed:

- ✚ the fact that our business is the first of it's kind in our town;
- ✚ in a world of speed, the internet is the best choice if you want to save time and that is why our business is client friendly;
- ✚ other core competences are the possibility of choosing the modality of payment (cash/credit card) and home delivery in a very short time- we can cover all the city in the late hours in less than 15 minutes.

All that the client has to do is to access our web site or give a call, things that take less then 2 minutes and we will do the rest.

- after the client ordered online the product, he will receive by mail the confirmation of his order which will contain the time of delivery and the total amount to pay. If they do the order by phone they will be informed about that on the spot.

In this venture the owner already has another business and he can bring his skills and professional experience to make it more easy at the beginning in order to smooth the steps that need to be followed when organizing the business. Another advantage is the fact that the same owner has great abilities in online-sales. We will have an accountant with very good skills in this domain. We will bring also two assistant managers with background in dealing with customers, so they interact very well with our target group.

Resource availability

Our objective is to do home delivery, so the clients don't have to go or have contact with the shop itself, so the siege of the office will be in one of the owners apartment.

By taking advantage of this we will have all the resources we need at discretion:

- ✚ primary resources: electricity, water and sewage.
- ✚ labor source: we can choose easy our driver employees from our town because after a statistic research we discovered that the rate of unemployed people with driving license for over one year is high.
- ✚ transportation and distribution system: one of the owners will provide her personal car and we will need only one more car to deliver and also to take the merchandise from the suppliers.
- ✚ communication system: we have in the apartment three types of phone-lines: Orange,

Vodafone and Romtelecom in order to make more easy the communication between us and the customers. We also have already in the apartment an available internet connection to serve the online request of our customers.

Legal Form of Ownership

Our company will be Limited Liability Company.

We choose this type of legal form because as student when i open this type of company the state provide us tax reducing: we only pay 23 Euros for all the papers necessary to start the business and also a main advantage is that the minimum Social Capital is only about 57 Euros.

The company will be VAT payer and will pay 16% of profit like taxes.

4.4. Products and services

We will provide the following products:

- ✚ cigars (the most consumed ones);
- ✚ alcoholic and non-alcoholic drinks (normal and luxury drinks);
- ✚ all kind of snacks;
- ✚ ice cream;
- ✚ chewing gum;
- ✚ coffee and tea.

Competitive advantages:

Our business is an original and unique project in online industry so we don't have direct competitors. Our indirect ones are the non-stop boutiques.

Main advantages related with our indirect competitors:

- ✚ we make home delivery and our customers are not obliged to leave the comfort of their home.
- ✚ the non-stop boutiques usually don't allow the credit card payment, so by allowing that we will have another advantage in comparison with our competitors;
- ✚ the clients can access online our catalogue and they can see all the available products(if they go to the boutique they can have the unpleasant surprise not to find the desired product);
- ✚ they have the opportunity to chose the products without leaving the comfort of their home;

Main disadvantages:

- ✚ the client must have a minimum order of 20 lei (about 10 dollars);
- ✚ the non-stop boutiques, our indirect competitor, have a larger range of products for the customer to choose;
- ✚ the people are used to go to that kind of boutiques but due to the fact that young people and elevate ones want more comfort and like to surf the internet we think that this disadvantage can be argued in a short period of time.

Prices for our products:

- ✚ for normal products (alcoholic and non-alcoholic drinks, coffee, snacks, gum), the acquisition price + 10% representing the fee = the final amount of price;
- ✚ for luxury drinks (whisky, champagne and other expensive alcoholic drinks and non-alcoholic ones like energy drinks), Ice Cream and expensive types of coffee, the acquisition price + 20% representing the fee = the final amount of price;

The fee implies the cost of gas and the commercial added-tax.

4.5. Marketing Plan

For developing our marketing plan we used the following methodology:

1. Primary data research :

- ✚ yellow pages: this way we identified the following indirect competitors: gas station with non-stop program; non-stop boutiques, the most important ones localized in bus stations;
- ✚ focus group interviews to learn about consumer preferences, this way we acknowledged which are the most consumed products and the most popular brands;

2. Secondary research:

We used this type of research to learn more about the markets request in this field. As secondary data we used profile magazines and Chamber's of Commerce data base.

Economics:

We will have 75% of the market because we represent the only company which provides this type of services due to the fact that our competitors mentioned above are only our indirect ones.

From our marketing research it resulted that the current demand in our target market is very high. The trend in our field in activity development is a growing one. After our online market research we discovered that the online businesses of this kind are passing through an explosive development mainly because of the setting up low cost and because of the direct access to a significant number of potential clients. The market is splitting between professionals and amateurs. In the future there will be seen only the leading actors in the segment of IT, food and beverage, virtual commercial centers, virtual luxury shops with resources which have maximum capacity to sustain the online phenomenon.

The barriers that we face entering in this market with our company.

One of the main barrier can be the consumer's acceptance and our brand as company recognition; this may happen because we represent a new and unique company of this type. We can overcome these barriers by advertising our products in the best way possible and by making our first customers loyal.

Of course, we are taking into consideration the possible changes that could occurred in time. These could be:

- ✚ changing technology: because we have an online business we are very flexible when it comes to technology so we don't think that this would be a problem difficult to resolve.
- ✚ change in government regulations: this could not affect our business because there already exists in our country a government regulation for online industry;
- ✚ change in the economy : no matter of the changes that could happen in the economy, our business is a very flexible one due to the field it's coming from because the prices of our products will change and adjust in the same rhythm as the economy.

- ✚ change in your industry : because is a new industry in our city, until the changes will happen, we will have succeeded to make our customers loyal, so our future direct competitors won't represent a problem.

Product

From our customer's point of view, our service is an unique and original one. It is very convenient for them to rely on us. The prices are acceptable, the time of delivery creates no problems and they have a very easy access to our services. They will be more than satisfied about the following advantages:

- ✚ they will be sure that the products are on stock;
- ✚ they will receive immediately the amount they have to pay;
- ✚ they will not leave the comfort of their home for acquiring the products.

From the customers point of view this will be one of the best services ever existing on the market.

Features and benefits

Our major services are online shopping and home delivery. The most important features and benefits of our clients for online shopping services are:

- ✚ the customer can visit our site and check if the products they want are in our catalogue;
- ✚ if they are, they can see if the stock is available;
- ✚ after that, they can make the order. In the same time our program will calculate automatically the amount of money that they have to pay;
- ✚ the next step for the clients will be to introduce their address and they will receive immediately the time delivery;
- ✚ they can pay by credit card;

For home delivery the most important features and benefits for our clients are:

- ✚ the customer won't leave the comfort of his home;
- ✚ the customer will be served in time and with the best quality.

Customers:

Our target groups are divided in two. Due to the fact that we have an online business we will have on one hand the young people with ages between 18 and 25, both males and females, who are living in Pitesti, who are possessing an average income or allowance, with medium and high social class and our students, or have an occupation which can provide them with enough incomings.

On the other hand we have the businessmen and businesswomen, with ages between 25 and 60, from Pitesti who can order from our luxury package .

These are our two main target groups.

For business customers, the demographic factors might be...

Our business comes from the framework of online sales industry. For our domain, the part of online shopping is an unexploited one. So we discovered a good niche to explore. The location will be in Pitesti and the size of our firm will be small at first. The site of our business will be an apartment with storage because the clients will not get in contact with our commodities. The quality of our services will be impeccable. The technology that we will use will be IT (internet connection for 2 computers) and phone services. About preferential prices we will give for an order bigger than 40 \$ a free bottle of wine and for loyal customers we will offer 10 % discount.

Competition

In our city, our business is the first of his kind, so we don't have direct competitors in the field of online night shopping. The only competitors that we have are the indirect ones, which are represented by non-stop boutiques. Their locations are the buss stations and gas stations. The only advantage that they have in comparison with our business is that they are offering a wider range of products. Our service is unique so our competition cannot provide better services than us.

Competitive advantages and disadvantages:

Due to the fact that we have an unique business which is the first of its kind on our local market, we have no direct competitors. So the advantages that we have are the following:

- + they will be sure that the products are on stock;
- + they will receive immediately the amount they have to pay;
- + they will not leave the comfort of their home for acquiring the products.

The only disadvantage that we have is the fact that our competitors have a wider range of products.

Table 1. Competitive Analysis

Factor	Me	Strengths	Weakness	Competitor A	Competitor B	Importance to costumer
Products	Delivery services	Credit card payment	Small range of products	Big range of products	Big range of products	High
Price	Acceptable	Accessibility	No weakness	medium	high	High
Quality	Best	Superior quality	No weakness	Doubtable quality	High quality	High
Service	Online delivery	Promptness	No weakness	Direct buying(cash)	Direct buying(cash/ credit card)	High
Reliability	Confidence in our quality service	New and technology attract	New service on the market	Longevity	Known brands	High
Stability	Monopole of the market	Using high tech	No weakness	They have a narrow future	Constant stability	Medium
Company reputation	No reputation yet	Creating curiosity	People's reticence to new	No reputation	Very good reputation	High
Location	Not relevant	Center of town	No weakness	Every bus station	Strategic points	Low
Sales method	Online	Home delivery	No weakness	Direct sales	Direct sales/self-service	High
Credit polices	No credit payments		No weakness	No credit payments	No credit payments	Medium
Advertising	Online, radio, newspaper, flyers	Wide range covering	No weakness	Light firm	Wide range of advertising	High
Image	Great image	Online night shop friend	New service on the market	They are part of quotidian	Top image	High

Niche

In the industry of online sales we decided to start our business concentrating on the niche that we found: providing services for online home shopping, which represents our unique corner on the market.

Strategy

Promotion

The means through which we are going to promote our products will be by radio, flyers, online advertising on web shop pages and by making announces in a local newspaper. Why this mix and not other? Because these are the most important and inexpensive means of promoting a business. How much it costs for this entire media? The entire amount of our advertising costs will be 410 \$ per month. We want to project the image of a high quality service company and in this way the customers will see our business as a structure that provides them originality and comfort.

For this we have prepared a special graphic image support which includes our company logo and cards.

Our system for identifying loyal customers will be a simple and clear one. We will make a data base with our customers and each time they are entering an order the computer will automatically select them and they will be the first to benefit of our service.

Promotional budget

We will try to make the best advertising for our business without spending a large amount of money. So we have chosen for "before start-up" and for "on-going" the same kind of advertising. That includes :

✚ radio advertising : 120\$ per month;

We will advertise our services through Radio 21 because is the most listened radio in our city.

The announce will be made 4 times a day, every day of the month and it will be for 10 seconds: "Be in touch with your night shop friend just accessing www.nightshopfriend.ro

✚ news-paper advertising : 90\$ per month;

The advertising will appear in Impact, a success local news paper.

Per day we will pay 3 \$ and the announce will be : "[.nightshopfriend.ro](http://www.nightshopfriend.ro) will deliver for you all you need in the night very fast." A friend in need is a friend indeed."

✚ flyers : 200\$ per month;

✚ online advertising : 0\$ (on special sites commercial advertising is free);

Pricing

Because of the fact that we don't have any competitors on this type of market we own the monopole, so our pricing strategy will reveal the fact that is more easy to order from our shop because the prices are the same and you also save time.

Price is very important as a competitive factor, but in our online shop, customers won't make their purchase decisions mostly on price, because our shop target is to access online to save some time and have the products that you need at time and at the hour you need them.

Proposed location

Our location will be in Pitesti, and is already established because we already have an apartment near the center of our town, from where our business can be managed. We don't need a special location because our customers don't get in contact with our siege.

Distribution channels

Our distribution channel will be a direct one through mail order, web catalogue.

Sales forecast

Because we don't have any historical data about this type of business, we forecasted our sales using the market research about the most consumed products in line with our range of offerings that appears in our web catalogue.

4.6.Operational Plan

Production

We don't have any production in our company because we only have online customer service. All the products that we have in our web catalogue are taken from the suppliers.

Location (1) : our location is an apartment located near the center of the town with all the utilities so we will have a normal and personal type of location and not necessary a business one like for producing or receiving the customers.

Location (2) : due to the fact that our apartment is near the center of the city is very easy for our suppliers to transport the merchandise and it's also easy for us to deliver the orders in all the parts of the town.

Location (3) : the only costs that we are foreseeing for our location are the apartment's utilities that will amount a total of 260\$ per month. The business hours are from 20.00 p.m. until 05.00 a.m.

Legal environment

We will need licenses for the computers for making from the apartment the siege of our business. We also need permits for the consumers protection office to keep in storage our products and to sell them to our clients, permits from the environment protection office and from the fire department. The insurance coverage will be necessarily only for the location and for the cars.

Personnel

The owner will be the manager. Also we need two assistant managers, two drivers for home delivery and one accountant. (Figure No. 1)

Inventory

Due to the type of our business we will only keep a daily inventory of our supplies.

Suppliers

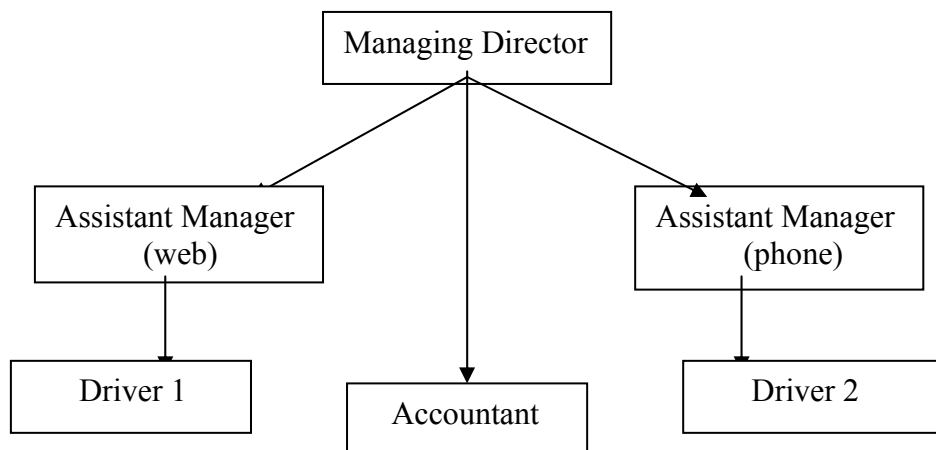
- 1) METRO : Pitesti, Arges, Romania, DN65 B, Km 107. E-mail : secdir.pit@metro.ro
- 2) HYPERMARKET PIC : Pitesti, Arges, Romania, DN65 B, Km. 3. E-mail : www.hyperpic.ro
- 3) S.C. RADIC STAR S.R.L. : Stefanesti, Arges, Romania, Str. Cavalerului, Nr. 893

All the suppliers costs are steady. They are not fluctuating. In case they are, we have an optional lists of other suppliers to which we can appeal in need.

4.7. Management and Organization

On a day-to-day bases the person who will manage the business will be Felix Burcea . His experience from owning and managing another company will increase the business status. Also his background in online sales is a strong point for a positive influence to our company. His special competences and abilities of being a specialist in online sales and financial problems are defining in the best way possible the reasons for which this is the most appropriate person for managing this business.

Figure no. 1 : Organigram



4.8. Start up expenses and capitalization

Source of capital:

1)Owner investment:

- Felix Burcea : -14.000\$

- one car (Ford Fiesta) evaluate at 7.000 \$

- one car (Fiat Doblo) evaluate at 9.000 \$

The total cash investment is 14.000.

FELIX MONDO CORPORATE LLC is divided in 100 social parts, one social part with the nominal value of 140 \$.

2)Other investment : 0 \$

3)Bank loans: 0 \$

4)Other loans: 0 \$

TOTAL : 14.000 \$

Expenses:

1)Building/ real estate :

- Purchase: 0 \$ we already have a location;

- Construction : 0 \$

- Remodeling : 0 \$

- Other : 0\$

2)Lease hold improvements : 0 \$

3) Money for Capital Equipment list :

- computers : 500 \$;

- freezing installation : 1500 \$;

- cars : we already have;

Total : 2.000 \$

4) Local and administration Expenses :

- legal and accounting fees : 100 \$;

- prepaid insurance : 250 \$;

- other: 200 \$;

Total : 550 \$

5)Opening inventory :

- Cigars : 2.400 \$;

- Drinks : 3.000 \$;

- Coffee : 1.500 \$;

- Snacks : 1.800 \$;

- Ice Cream : 1.200\$;

Total : 9900 \$

6)Advertising and promotional expenses :

- advertising : 410 \$;

TOTAL : 12.630 \$

Total investment – Total Expenses = 1. 370 \$ = Working Capital

4.10. Financial plan

Cash flow:

The Cash Flow will be represented in the table No. 2.

After the prediction of the Cash Flow we present the Repartition of Profit which you can see it bellow.

Repartition of profit

Tax pay = 16 % * Brut Profit = 16 % * 46.694 \$ = 7.471,04

Net profit = Brut Profit – Tax Pay = 46.694 \$ - 7.471,04 \$ = 39.222,26

Table 2. Cash Flow for one year(November 2009- October 2010)*

	november	december	january	march	april	may	july	august	september	october
Work capital	1370	2680	4310	8628	11400	14626	22668	27586	33184	39526
total revenue	13095	14405	15845	19172	21090	23199	28070	30877	33965	37362
drinks	4050	4455	4901	5930	6523	7175	8682	9550	10505	11555
coffee	3120	3432	3775	4568	5025	5527	6688	7357	8092	8902
cigars	2025	2228	2450	2965	3261	3587	4341	4775	5252	5778
snacks	2340	2574	2831	3426	3769	4145	5016	5518	6069	6676
Ice Cream	1560	1716	1888	2283	2512	2765	3343	3677	4047	4451
total incoims	14465	17085	20155	27800	32490	37825	50738	58463	67149	76888
suppliers	9900	10890	11979	14495	15944	17538	21222	23344	25678	28246
drinks	3000	3300	3630	4392	4832	5315	6431	7074	7781	8559
coffee	2400	2640	2904	3514	3865	4252	5145	5659	6225	6847
cigars	1500	1650	1815	2196	2416	2657	3215	3537	3891	4280
Snaks	1800	1980	2178	2635	2899	3189	3858	4244	4669	5136
Ice Cream	1200	1320	1452	1757	1933	2126	2572	2830	3112	3424
salaryes	600	600	600	600	600	600	600	600	600	600
advertising	410	410	410	410	410	410	410	410	410	410
Radio	120	120	120	120	120	120	120	120	120	120
News-papers	90	90	90	90	90	90	90	90	90	90
Flyers	200	200	200	200	200	200	200	200	200	200
phone servicies	100	100	100	100	100	100	100	100	100	100
internet service	25	25	25	25	25	25	25	25	25	25
building utilities	270	270	270	270	270	270	270	270	270	270
Gas	480	480	490	500	515	515	525	530	540	540
Total expenses	11785	12775	13874	16400	17864	19458	23152	25279	27623	30191
grand total	2680	4310	6281	11400	14626	18367	27586	33184	39526	46694

*Due to the lack of space in the page, the upside table doesn't contain the following months: February and June

5. Conclusions

If we want to be good entrepreneurs, we must follow an excellent business plan. We must find a perfect niche to enter on the market and it is necessary to be innovative, to have ideas that will satisfy the needs of our future customers.

That is why we choose to present the business plan of an online night shopping- it will cover an unexploited niche of the Romanian market, especially in Pitesti, until now, in the area of Food and Beverage online shops . We analyzed this trend and by making market research we get to the conclusion that an online shop represents a profitable business. We designed our business in order to help people making shopping at late hours in the easiest way only by a click. Our business philosophy is to satisfy our clients and we rely on the saying:“ A friend in need is a friend indeed”

We want to project the image of a high quality service company, so our clients can see our business like a structure that provide them, not only comfort, but also originality. The market is splitting between professionals and amateurs. In the future there will be seen only the leading actors in the segment of IT, food and beverage, virtual commercial centers, virtual luxury shops with resources which have maximum capacity to sustain the online phenomenon.

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A Provocation for Quality Product

Hasan GÖKKAYA

hgokkaya@hotmail.com

Engineering Faculty, Karabuk University, Turkey

Gratiela Dana BOCA

bocagratiela@yahoo.com

North University of Baia Mare, Romania

Abstract

The new problems on global market bring a wind of changes in our lives, as well in technology, in environment protection, the future provoke us to find immediately solution and identify new sources for industry. The solution to this problem is the improvement of quality management of enterprises and also of products which must be designed taking into consideration the protection of environment. From this point of view we have to change the total quality management. Also the target of this research is to identify new solutions and recycle the possibilities of the materials. The intense search for solutions, the needs for a system of approach, the use of knowledge or models, can be used as a measure to reduce variations between different countries and develop a new system inside the universities which implemented a new eco age and which are preparing the new generation to redesign the mantra of this new eco-age and its green products. A solution to this challenge, and an explanation of applying a sustainable strategy under the principles of quality and continuous improvement in research work done in our universities will be presented in this article, as well as some solutions which guarantee the efficiency as a result to the new challenges in our market place and technological process.

1. Introduction

We are constantly amazed by the speed with which our attitudes absorb new ideas and new technologies. Novelty appears to have a rapid decay rate in the modern world, and thus a new concept of the future appeared: the eco and green industry.

As a result of the green sustainable industry and not only, the major changes that have affected our societies are usually described under the label ***industrialization or modernization***.

This development has involved changes such as:

- ✚ The factory system of manufacturing;
- ✚ Large complex industrial and commercial organizations;
- ✚ Increase of life expectancy;
- ✚ Consumer society.

Change is taking place too slowly; the rate of technological innovation in our industry will need to increase its products and manufacturing processes under the new rules regarding the protection of environment and the new orientation of the recycling of products, components, materials.

We have no other option; we must concentrate our efforts on industries, change and adopt as fast as possible technical innovation from abroad, and implement it in economical activity, this being the solution which will ensure the improvement of total quality management. Rapid change in common places, the complexity of organizational activities, disorganization and frustration are all natural aspects of our daily lives and normal features of organizational life. Organizations are in a constant state of change and they are not able to adjust, to change, having difficulty in surviving, this is why the management of change has become such a serious managerial problem.

The problem is to create organizational forms that are stable enough to persist, but flexible enough to adapt to pressures for change. For that reason total quality management can be a solution, a philosophy and a system for the continuous improvement of services and products offered to customers.

Now that the technologies of transportation and communication have replaced national economic systems with a global economy, nations and businesses which will not practice total quality management can rapidly become globally non-competitive.

2. Solution for causes and effects in technological process

A major challenge facing the economy today is the integration of environmental issues in economic growth, and slowing down the environmental degradation process in the context of economic growth.

In essence, we need to find solutions to do more in this problem. Taking into consideration all these situations, we believe that our role is to motivate and encourage our students in research work and develop creativity and innovation. This objective in our activity was becoming ever more important because of the collaboration among higher education institutions.

We identified the following objectives: climate changes and their consequences, increasing the demand for energy and resources, finding new technological solutions in industrial processes, increasing quality and reliability of the products.

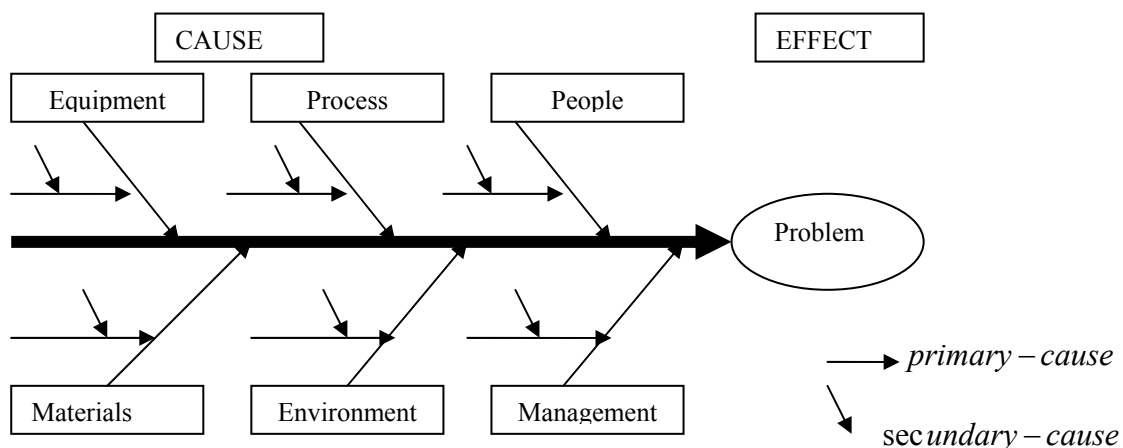


Figure 1. Fish bone diagram for technological process

These challenges require innovative approaches and call people to action. After we identified the common problems regarding new solutions for the manufacturing process using the fishbone diagram we provided an overall idea of the possible causes of our chosen problem and its new solutions for industry (Figure 1).

For any concern the four main causes through which the whole story was built are MAN, MACHINE, METHOD and MATERIAL, and because any cause of improvement involves the four M's categorically we take into consideration all these factors. We have used this instrument as a tool which helps us find the relationship between all six causes. In this way the investigation was also conducted for the major categories utilized:

- ✚ **The 4 M's: METHODES, MACHINES, MATERIALS, MANPOWER;**
- ✚ **The 4 P's: PLACE, PROCEDURE, PEOPLE, POLICIES;**
- ✚ **The 4 S's: SURROUNDINGS, SUPPLIERS, SYSTEMS, SKILLS.**

During our research we realized that training the people represents an important factor for this new trend in industry and economic market place. The important role of universities is to help people behave on the pattern of the fish bone, involving them in the development and implementation of department **PLANNING** for instructional and practical improvement, in discovering new solutions for this new challenge regarding the protection of environment, ecological procedures, green products, recycling procedures in industry.

Managing continuous movement toward progressively higher quality standards depends on defining those standards. We develop a simple scheme for organizing thinking and practice, with regards to organizational change, we can easily identify for our economical agents the variables who influence the organizations (Figure 2)

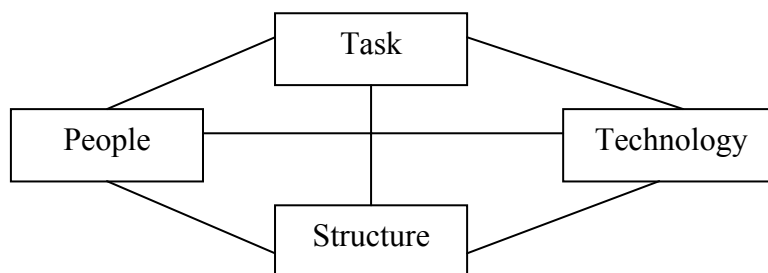


Figure 2. *The four variable who influence the organization*

The variables are

- ✚ the people of an organization who are its managers and its workforce, its members or its employees.
- ✚ the technology of the organization who is the tools and techniques that organization uses in the pursuits of its task,
- ✚ the task of the organization who is the reason for the organization's existence.

The change can affect any one of these variables, especially there is a tendency to blame technology as main source of change in both organization and society as a whole. The central issue is management choice of technical design and layout; work organization. A new technology will only create change if people in an organization see its potential and if others are ready to accept it and make it work effectively. This is why technology it is regarded as a trigger, not a cause of organizational change.

Technical change is simply the results of competitive pressure, it is widely assumed that the organizations must employ new information and computing technologies to remain competitive in world markets.

It is also generally accepted that, because microprocessor technologies are widely applicable, faster, smaller, cheaper and more reliable, their application will be inevitable, rapid and beneficial. The revolution we're talking about is that of information Technology, two words that until recently were unknown to all but a small number of people.

But they are two words with an impact so widespread that none of us can avoid being affected by them. Nor would we want to. It is no exaggeration to say that the impact of information Technology, or IT, will be greater than that of any other technological developments that have come before. A technical change is a management decision which can improve the technological process and also give a possibility from the first stage of design product to find and create quality products with the standards needs.

Technical change can be achieved under the results of competitive pressure; the organization must employ new information and computing technologies to remain competitive in world markets following the strategy choice (Figure 3).

The reason to implement the new management change in industry it is present as an argument that the consequences of technical change in an organization depend on the capabilities of the technology used, why it is used and how work is organized around it.

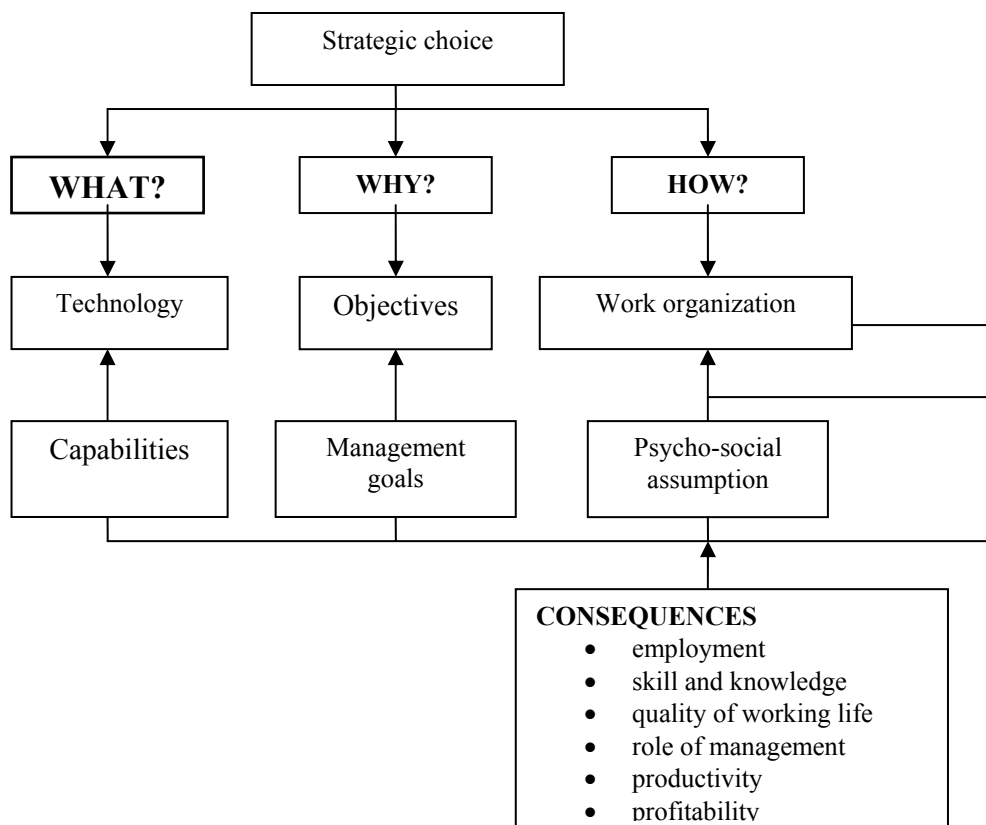


Figure 3. *Technical change- the management decision making process*

These standards should emphasize developing student abilities to solve real-life problems rather than just memorizing subject matter. The latter does not represent a quality for either students or employers.

It is also generally accepted that, because microprocessor technologies are widely applicable, faster, smaller, cheaper and more reliable, their application will be inevitable, rapid and beneficial.

A technical change is a management decision which can improve the technological process and also give the possibility to find and create quality products with the standards needs from the first stage of product design.

The reason to implement the new management change in industry is an argument that the consequences of technical change in an organization depend on the capabilities of the technology used, the reason why it is used and how work is organized around it. That kind of technology will give the opportunity to model and simulate the new green generation products and reduce the loss and failure of the products which means a lot of extra money for non-quality.

The principles are important for the strategy of quality management which will increase the creativity and also define new solutions for the a new generation = green products. It is expected that organization would seek to develop knowledge, skills and attitudes based on these six principles through their staff training, any formal education activity they undertake, their information and awareness raising activities, and through the way in which the organization operates [1]:

1-interdependence -understanding that what happens in one place can affect what happens somewhere else.

2-carrying capacity - understanding that there are limits to the world's resources and the ways in which the world can develop and that the consequences of unmanaged and unsustainable growth are increased poverty and hardship, and the degradation of the environment, to the disadvantage of us all.

3-rights and responsibilities - understanding the need to manage our lives; we do not know what life might be like in the future.

4-uncertainty and precaution - understanding that our actions may have unforeseen consequences and recognizing that there are limits to human knowledge, and encouraging a cautious approach to the welfare of our planet.

Also a new collaboration in the right combination of all the tree factors will determine **SUCCESS**, such support gives access to resources, continuing professional development for the future managers and engineers form the labor market (Figure 4).

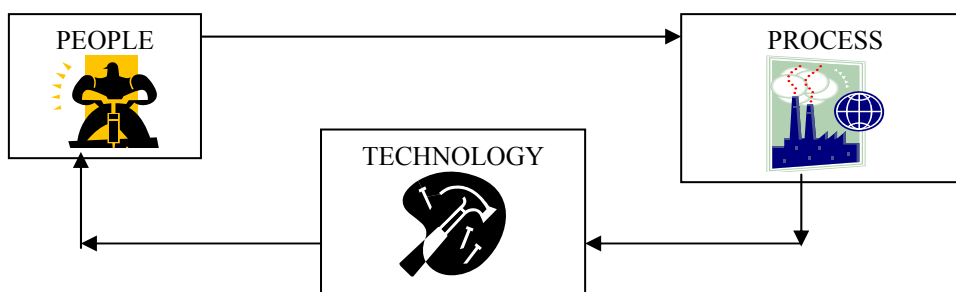


Figure 4. *The factors involve the economical activities*

3. Results of research work

We realize that universities have some common projects regarding the solutions to improve the quality in industrial processes. Because the priority was to find solutions to improve also the reliability of the products we took into consideration the new standards ISO 14000 and redesign the entire process and management from RRR point of view in each of the departments of the small enterprises. We must change our methods under the influence of the protection of environment and green products for that reason, we start to redesign the entire process from the creation of the product along the technological process to the final step of the product.

We can present some of our research work, where team spirit (engineers and economists) identify some solutions for green products. From the fish bone diagram in figure 1, we started and established a plan regarding the research work and identify new materials which are able to improve the characteristics of the products and increase the life-long cycle of the products.

The results obtained for machinery drilling insert shows the new chemical material composition, as a solution for our green products, solution which can improve the manufacturing quality of the tools in technological process, where the material it is an important cause from the Ishikawa diagram (figure 1).

It is important to encourage the spirit of creativity and innovation, because of the competition and the rapid solutions requested by our economical crises. Improving quality characteristics for cutting tools, and choosing another type of material will increase the parameters of working machinery, the results obtain are presented in table 1.

Table 1. Technical specifications of changeable cemented carbide cutting tools

Coating materials	Coating method	Materials quality ISO (Grade)	Stiffness (Hv)	Friction coefficient	Heat transfer Coefficient W/m*K
TiN (TiN, Al ₂ O ₃ , TiC)	CVD	P10	2500	0,35	27
TiAlN	PVD	P20	3100	0,4	28
AlTiN	PVD	P20	3200	0,47	29
Wc-Co	Uncoated	P20	1800	0,6	38

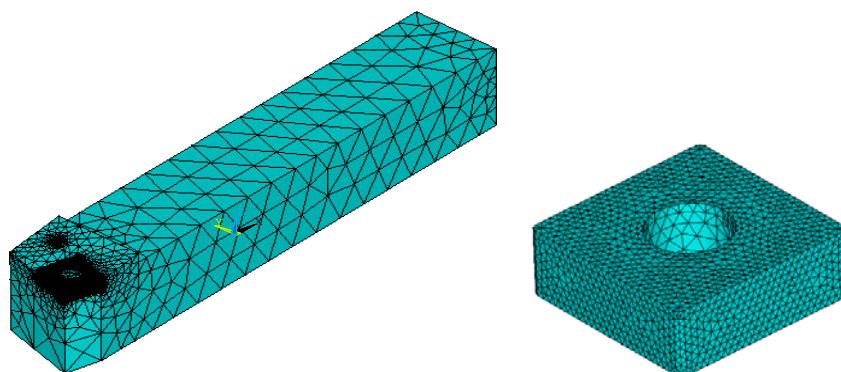


Figure 5. Partitioned element view of models a) Tool-holder, b) Cutting tool

The program designed in Turkey at Karabuk University takes into consideration only one factor regarding the material used for the industrial tools; the research work was finalized according to the data presented in figure 5 (Gokkaya H. [4]).

In the statistical results present below from research work, regarding the modification of the composition of the material after the interpretation of the results we can observe that the quality was improve the result: a stamp of good work done.

The conclusion after the interpretation of the statistical results: the material composition can be improved; in this way the torques and the reliability of the tools in technological process and manufacturing process can be improved.

Another factor which can affect the quality aspects of technological processes was analyzed this time by the representative of the department quality management of the product from the North University of Baia Mare (BOCA G.[3]).

The research was done taking into consideration the technological process of the product the innovation it is that we can design the product to a high quality and reliability from the first stage of manufacturing design in this way we reduce the cost with non quality .

The solutions proposed for the future green products are

- ✚ design the products to a low design frequency;
- ✚ using new methods of design for products by virtual simulation, {Figure 6};
- ✚ optimizing the product from the first stages of the design;

This way the producer will be able to optimize and study the product from the beginning reducing the production costs and investing in new technology. Thus phonic pollution, the protection of the environment, the recycling of some parts of machinery and the special materials used can be achieved under the 3R rules.

Designing the products to low frequencies, because the sounds and vibrations still remain an unsolved problem for the majority of the machinery and manufacturing, represents a priority for this eco-age. The virtual simulation and creating the model with the help of the new programs based on finite element method give the solution to the new trend for our industry.

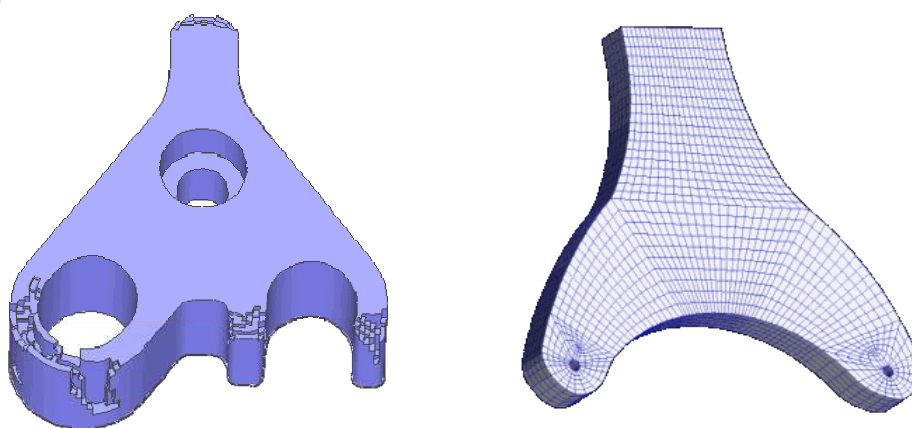


Figure 6. Preparing a piece for a study version adapted to virtual simulation using ANSYS program

The battle between the old methodology and the new trend in industrial life was an important victory. This way it is not necessary to create the product and it is possible to increase the quality and reliability from the design stage using the methods as finite element method, new generation programs as a source of increasing quality and decreasing the non- quality costs.

From the examples given in this paper we share these examples from our cooperation program when we identified and discovered solutions for the same problems. Again we can understand that economy has the same problem in different countries; our cooperation feedback is the mutual programs established for a the implementation of courses ANSYS 11 and introducing the new courses TOSCA program for the optimization of the products.

4. Conclusion

Success mantra need total commitment at the job or the learning arena. It is very important to incorporate the capsules of total quality, right from the doorman to the top management. The most important factor which can influence quality in TQM is the people, the young generation who learn and study now in our universities.

We teach them everything except how to think, what to do after they finish to study, how to find a solution in a difficult situation. It is easy to learn Quality Tools but to practice them at large is a difficult thin. In creating and delivering new solutions for industrial process technology it is necessary to define:

- ✚ the involvement in research work and stimulate creativity and innovation in finding solution for new products ;
- ✚ encourage the implementation of new technologies regarding the simulation and virtual modulation of the products;
- ✚ identify ways to obtain from the first stage of manufacturing design – quality’;
- ✚ identify and discover for all causes: people, machinery, tools, materials, solutions;
- ✚ new solutions for recycling and re-using some parts, materials from the damaged products;
- ✚ new solutions to protect the environment.

In conclusion we have the tools and methods to implement the research work and find new solutions for industry. Preparing the next eco- products will be successful and resolve the quality problems of each part of the technological process and also of the people involved in the manufacturing activity.

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Impact of the Global Crisis on the Financial Linkages between the Stock Market and the Foreign Exchange Market from Romania

Razvan STEFANESCU

rzvn_stefanescu@yahoo.com

Ramona DUMITRIU

rdumitriu@ugal.ro

"Dunarea de Jos University" Galati

Abstract

This paper explores the financial linkages between the Romanian stock market and the exchange market in the context of the global crisis. We investigate such relations for two periods of time: one from January 2006 to February 2008, when the Romanian financial markets were quite tranquil and the other from March 2008 to September 2009, while the global crisis effects were considerable for Romania. For the first period of time we could not prove significant relations between the foreign exchange market and the stock market. Instead, for the second period of time we found a unidirectional causality from the exchange rates to the stock prices.

Keywords: Romanian financial markets, Vector Autoregression, GARCH, Granger causality, financial linkages

JEL Code: G 19, C 01

1. Introduction

In Romania in the last decade the linkages between the stock market and the foreign exchange (FOREX) market strengthen. The restrictions to the foreign capitals were step by step abolished and many investors from abroad were able to fructify the opportunities of a dynamic stock market which became very attractive since the economic recovery. For many years the substantial investment from abroad caused an increase of the national currency demand. However, in the last months, in the context of the global crisis, the stock prices decreased while the national currency depreciated (Fig. 1 and Fig. 2).

In the actual context it is important to evaluate the changes induced by the global crisis to the linkage between the stock market and the FOREX market. The results of such an investigation could be useful in anticipating the future evolutions of the two markets. However, despite the importance of the subject, the changes provoked by the global crisis on the linkages between the Romanian financial markets were not, at least to our knowledge, approached until now in the specialized literature.

This situation is somehow justified since the actual global crisis is still far from the end. In this paper we attempt to make a preliminary investigation about the effects of the crisis on the stock market and FOREX market from Romania. For this purpose we use a sample of data from January 2006 to September 2009, consisting in daily values of the representative index on

the Romanian Stock Market and the nominal exchange rate of the nominal currency against the euro. We study the eventual cointegration between the two time series and we analyze their interactions in a Vector Autoregression (VAR) framework. We also use ARCH – GARCH models to investigate how volatility from a market could be transferred from another market.

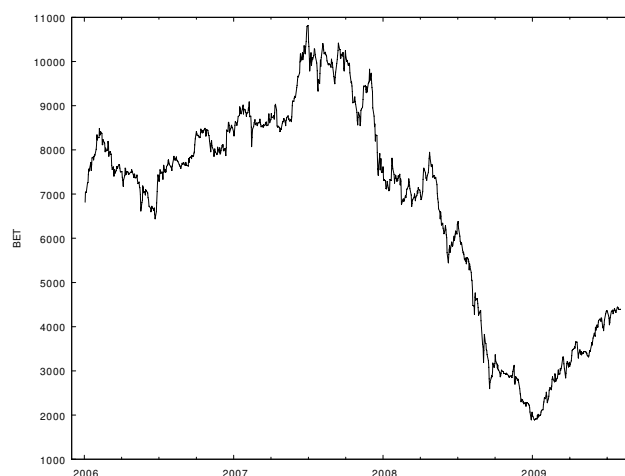


Figure 1. Evolution of BET index from January 2006 to September 2009



Figure 2. Evolution of the exchange rate of euro against the Romanian National Currency from January 2006 to September 2009

The rest of this paper is organized as follows. In the second part we approach the specialized literature, in the third part we describe the data and the methodology used in our investigation, in the fourth part we present the empirical results and in the fifth part we conclude.

2. Literature Review

In the specialized literature could be found two major approaches on the relationship between the stocks prices and exchange rates: the traditional approach and the portfolio balance model. The traditional approach explained the causalities between the exchange rates mainly through the competitiveness of the firms. When the local currency is appreciated the competitiveness of a firm is reduced, so its profit declined and so did its stock price. On the contrary, the

depreciation of the national currency could raise the firm profit, increasing its stock price (see, for example, Dornbusch and Fischer, 1980). In conclusion, the stocks prices are determined by the exchange rates evolution.

The portfolio balance model appeared in the context of the financial markets integration. A decrease in the stocks prices led to a reduced demand for money. This ensures low interest rate which determines the depreciation of the national currency by encouraging the outflow of capital. By contrary, the increase of the stocks prices could lead to the appreciation of the national currency. In that case the exchange rates are determined by the stock prices (for example Frankel, 1983).

The empirical researches on the relationship between the exchange rates and the stock prices provided mixed results. Bahmani – Oskooee and Sohrabian (1992) found bidirectional causality between the S & P index and the effective exchange rates. Hatemi – J and Irandoust (2002) analyzed the financial markets from Sweden and they concluded that stocks prices caused the exchange rates, but the opposite situation was not true.

Some papers approached the relationship between the stocks prices and the exchange rates in the emerging markets. Abdalla and Murinde (1997) studied it based on the data from four Asian countries and they found evidence in favor of the traditional approach. Aydemir and Demirhan (2009) investigated the exchange rates and several indices of the stock market from Turkey and their results indicate bidirectional causal relationships.

The Asian financial crisis from 1997 to 1998 provided evidences about the relations between the FOREX markets and the stock markets in the circumstances of high instability. Granger et al. (1998) studied the behavior of the financial markets from eight South – East Asian countries and they found that for most of them the stock markets led the FOREX markets. Hussain and Liew (2005) found unidirectional causality from the exchange rates to the stocks prices in the case of Thailand and a bidirectional causality in the case of Malaysia.

3. Data and Methodology

In our investigation we employ daily values of BET, one of main indices from the Bucharest Stock Exchange, and of the nominal exchange rates of euro against the Romanian national currency. The data are provided by the Bucharest Stock Exchange, for BET, and by NBR, for exchange rates. We use the two variables in logarithmic forms with the following symbols:

- l_BET as the natural logarithm of BET;
- l_NEER as the natural logarithm of the nominal exchange rates for euro against the Romanian national currency.

We use also the first differences of the two variables:

- d_l_BET as the first difference of l_BET ;
- d_l_NEER as the first difference of l_NEER .

In order to capture the bull and bear market circumstances we define two dummy variables:

- $d_l_BET^+ = 1$ if d_l_BET is positive and 0 otherwise;
- $d_l_NEER^+ = 1$ if d_l_NEER is positive and 0 otherwise.

In our analysis we use a sample of data from January 2006 to September 2009. We split this period of time in two sub-samples:

- first sample, from January 2006 to February 2008, a period of time when the effects of the actual global financial crisis were not very significant for Romania;
- a second sample, from March 2008 to September 2009, a period of time when Romania was considerable affected by the global crisis.

The descriptive statistics of I_BET and I_NEER , presented in the Table 1, indicate significant changes from the first to the second period of time. The mean of I_BET decreased from 9.03 to 8.29, indicating the bear market conditions. The mean of I_NEER increased from 1.24, reflecting the depreciation of the national currency. For both variables the values of standard deviations and of the coefficient of variation raised significantly, indicating a plus of volatility. Skewness and excess kurtosis of I_BET and I_NEER changed considerably, indicating different conditions of the markets. The Jarque-Bera test rejected, for both variables, the null hypothesis of the non normality.

Table 1. Descriptive statistics of I_BET and I_NEER for the two sub-samples

Indicator	I_BET		I_NEER	
	Jan 2006 – Feb 2008	Mar 2008 – Sept 2009	Jan 2006 – Feb 2008	Mar 2008 – Sept 2009
Mean	9.02991	8.29132	1.23854	1.36954
Median	9.02884	8.21592	1.25099	1.36962
Minimum	8.76996	7.54282	1.13501	1.24470
Maximum	9.28856	8.98045	1.32694	1.46156
Std. Dev.	0.114954	0.404086	0.0423556	0.0739576
C.V.	0.0127304	0.0487360	0.0341979	0.0540017
Skewness	0.216075	0.0855410	-0.416357	-0.131152
Ex. kurtosis	-0.764314	-1.14440	-0.292687	-1.72485
Jarque - Bera test for normality	17.6671***	21.5342***	17.8539***	48.956***

The analysis of the two time series has to begin by testing their stationarity for levels and for their first differences. For this purpose we employ the classical unit root test Augmented Dickey-Fuller (Dickey and Fuller, 1979). If this test proves that both time series are integrated at order 1 (are non stationary in levels but stationary in their first differences) we may continue by analyzing their cointegration. We use the Engle-Granger procedure (Engle-Granger, 1987), the more powerful Johansen cointegration test (Johansen, 1995) and the Breitung non parametric test of cointegration (Breitung, 2002). If both time series are stationary, at least in their first differences, we analyze their interactions in a VAR framework proposed by Lütkepohl and Kratzig (2004). We may also test the Granger causality between the two variables (Granger, 1969). In our investigation we intend to estimate the impact of a variable variation to the volatility of other variable. For this purpose we use ARCH and GARCH models (Engle, 1982 and Bollerslev, 1986).

4. Empirical Results

4.1. Analysis of the stationarity for the variables employed

Based on the graphical representations of the variables employed (Figure 3) we chose as deterministic terms constant and trend for the level values and only constant for their first differences.

In the Table 2 there are presented the results of the Augmented Dickey-Fuller Test for the observations from the first sub-sample. It shows that both I_BET and I_NEER are non stationary in levels but stationary in their first differences.

Table 2. Augmented Dickey-Fuller Test for the observations from the first sub-sample (from January 2006 to February 2008)

Variable	Deterministic terms	Lagged differences	Test statistics	Asymptotic p-value
I_BET	Constant and no trend	27	-1.19183	0.6804
	Constant and trend	27	-0.853024	0.9594
d_I_BET	No constant and no trend	26	-5.08609	4.935e-007
	Constant and no trend	26	-5.08947	1.335e-005
I_NEER	Constant and no trend	31	-1.2529	0.6535
	Constant and trend	31	-0.642751	0.9761
d_I_NEER	No constant and no trend	30	-3.53998	0.0003946
	Constant and no trend	30	-3.5485	0.006856

Note: The number of the lagged differences was chosen based on Akaike Information Criteria.

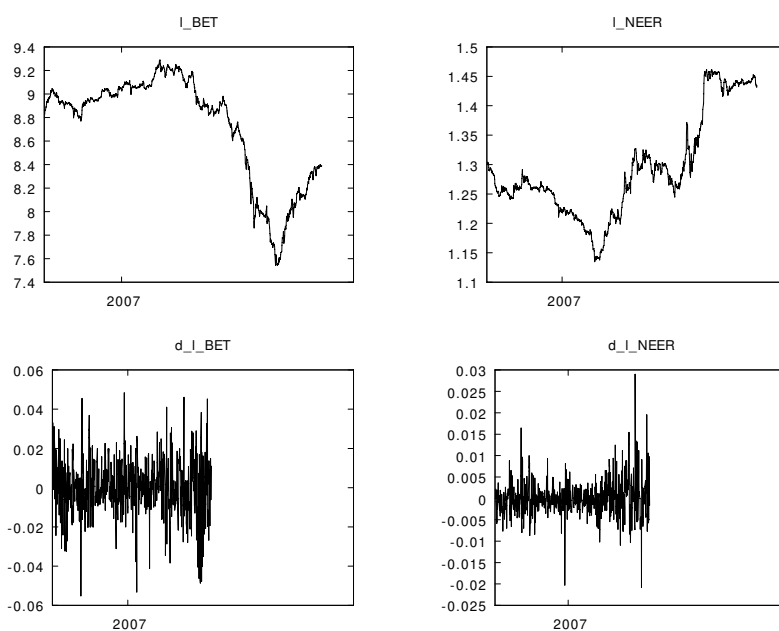


Figure 3. Evolutions of I_BET , d_I_BET , I_NEER and d_I_NEER from January 2006 to September 2009

The results of the Augmented Dickey-Fuller Test for the observations from the second sub-sample are presented in the Table 3. It shows again that the two time series are non stationary in level values but stationary in their first differences.

Table 3. Augmented Dickey-Fuller Test for the observations from the second sub-sample (from March 2008 to September 2009)

Variable	Deterministic terms	Lagged differences	Test statistics	Asymptotic p-value
l_BET	Constant and no trend	29	-1.66984	0.4467
	Constant and trend	29	-0.861427	0.9586
d_l_BET	No constant and no trend	32	-4.71173	2.9e-006
	Constant and no trend	32	-4.71386	7.572e-005
l_NEER	Constant and no trend	28	-0.964379	0.7679
	Constant and trend	28	-2.14209	0.5216
d_l_NEER	No constant and no trend	27	-3.0586	0.002171
	Constant and no trend	27	-3.14916	0.02315

Note: The number of the lagged differences was chosen based on Akaike Information Criteria.

4.2. Analysis of the cointegration between the variables

Since the Augmented Dickey-Fuller Test proved that both l_BET and l_NEER were integrated at order 1, we investigate if they are cointegrated. First we employ the Engle-Granger method for both sub – samples. The results for the first sample are presented in the Table 4. Since the residuals of the cointegration equation are not stationary we accepted the null hypothesis of no cointegration between l_BET and l_NEER.

Table 4. Results of the Engle-Granger method to test the cointegration between l_BET and l_NEER for the observations from the first sub-sample (from January 2006 to February 2008)

Variable	Coefficient	Std. Error	t-ratio	p-value
const	11.4759	0.0985533	116.4	0.0000***
l_NEER	-1.97490	0.0795255	-24.83	8.97e-092***
R-squared	0.529494	Durbin-Watson Test		0.034379
Augmented Dickey-Fuller Test on the residuals of the cointegration regression (with 11 lags and constant as deterministic term)			test statistic	-2.30997
			asymptotic p-value	0.368

Note: The number of the lagged differences for the Augmented Dickey-Fuller Test was chosen based on the Akaike Information Criteria.

In the Table 5 there are presented the results of the Engle-Granger method for the second sub-sample. Again, the residuals of the cointegration equation are not stationary so we can conclude that l_BET and l_NEER are not cointegrated.

Table 5. Results of Engle-Granger method to test the cointegration between I_BET and I_NEER for the observations from the second sub-sample (from March 2008 to September 2009)

Variable	Coefficient	Std. Error	t-ratio	p-value
const	13.8669	0.256043	54.16	3.67e-182 ***
I_NEER	-4.07040	0.186704	-21.80	3.30e-069 ***
R-squared	0.552480	Durbin-Watson Test		0.016163
Augmented Dickey-Fuller Test on the residuals of the cointegration regression (with 29 lags and constant as deterministic term)			test statistic	-1.14675
			asymptotic p-value	0.8714

Note: The number of the lagged differences for the Augmented Dickey-Fuller Test was chosen based on the Akaike Information Criteria.

The Johansen cointegration test (results are presented in the Table 6) indicates, for both sub-samples, a null cointegration rank. In these circumstances we can not reject the null hypothesis of no cointegration between I_BET and I_NEER .

Table 6. Results of the Johansen cointegration test

Period of time	Deterministic term	Lag order	Rank	Eigenvalue	Trace test	p-value	Lmax test	p-value
January 2006 to February 2008	Unrestricted constant	2	0	0.019438	13.082	0.1119	10.757	0.1693
			1	0.0042330	2.3246	0.1273	2.3246	0.1273
March 2008 to September 2009	Restricted constant	2	0	0.015668	8.9047	0.7462	6.0956	0.7749
			1	0.0072509	2.8090	0.6239	2.8090	0.6227

Note: The number of the lagged differences was chosen based on the Akaike Information Criteria.

The results of the Breitung nonparametric cointegration test, presented in the Table 7, suggest again, for both sub-samples, a null cointegration rank. We may conclude that I_BET and I_NEER are not cointegrated.

Table 7. Results of the Breitung nonparametric cointegration test

Period of time	Deterministic term	H_0	H_1	Test statistic	10% Critical value	5% Critical value
Jan 2006 to Feb 2008	no drift	$r = 0$	$r > 0$	95.58	261.00	329.90
		$r = 1$	$r > 1$	20.24	67.89	95.60
	drift	$r = 0$	$r > 0$	348.71	596.20	713.30
		$r = 1$	$r > 1$	69.20	222.40	281.10
Mar 2008 to Sept 2009	no drift	$r = 0$	$r > 0$	57.70	261.00	329.90
		$r = 1$	$r > 1$	11.95	67.89	95.60
	drift	$r = 0$	$r > 0$	157.48	596.20	713.30
		$r = 1$	$r > 1$	44.38	222.40	281.10

4.3. Analysis of the interactions between I_BET and I_NEER in a VAR framework

For the first sample we didn't find a suitable VAR model to reflect the relationship between I_BET and I_NEER. For the second sample we obtained the VAR model presented in the Table 8.

Table 8. VAR model for the second sample with I_BET and I_NEER as dependent variables

Equation 1: d_I_BET - Heteroskedasticity-robust standard errors

<i>Variables</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-ratio</i>	<i>p-value</i>
const	-0.00110495	0.0013843	-0.7982	0.42525
d_I_BET_1	0.140383	0.0744808	1.8848	0.06021*
d_I_BET_2	-0.0588214	0.0698585	-0.8420	0.40031
d_I_NEER_1	0.395655	0.358502	1.1036	0.27045
d_I_NEER_2	-0.758827	0.375922	-2.0186	0.04423**

Mean dependent var	-0.001334	S.D. dependent var	0.028298
Sum squared resid	0.296480	S.E. of regression	0.027859
R-squared	0.040817	Adjusted R-squared	0.030773
F(4, 382)	2.333875	P-value(F)	0.055206
rho	-0.009346	Durbin-Watson	2.018536

Equation 2: d_I_NEER - Heteroskedasticity-robust standard errors

<i>Variables</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-ratio</i>	<i>p-value</i>
const	0.000286284	0.000287032	0.9974	0.31921
d_I_BET_1	-0.00108423	0.0149959	-0.0723	0.94240
d_I_BET_2	0.0210115	0.0147027	1.4291	0.15379
d_I_NEER_1	0.24461	0.0750812	3.2579	0.00122***
d_I_NEER_2	-0.0808835	0.0678716	-1.1917	0.23411

Mean dependent var	0.000315	S.D. dependent var	0.005999
Sum squared resid	0.012930	S.E. of regression	0.005818
R-squared	0.069090	Adjusted R-squared	0.059342
F(4, 382)	3.981587	P-value(F)	0.003536

Note: The number of the lagged differences was chosen based on Schwartz Information Criteria

For the two equations the t-ratio values indicate there are coefficients which individually are not statistically significant. However, the p-value associated to the F test suggests that collectively all the coefficients are statistically significant. The low values of the Adjusted R-squared indicate a relative weak relationship between the two variables.

In the VAR framework we evaluate, for the second sample, the interactions between exchange rates and stocks prices using impulses – responses functions. In the Figure 4 there are presented the responses of d_I_NEER to an impulse from d_I_BET. It shows that after a short decrease d_I_NEER began to rise abruptly to a maximum, from there beginning to decrease arriving to come back at the initial level.

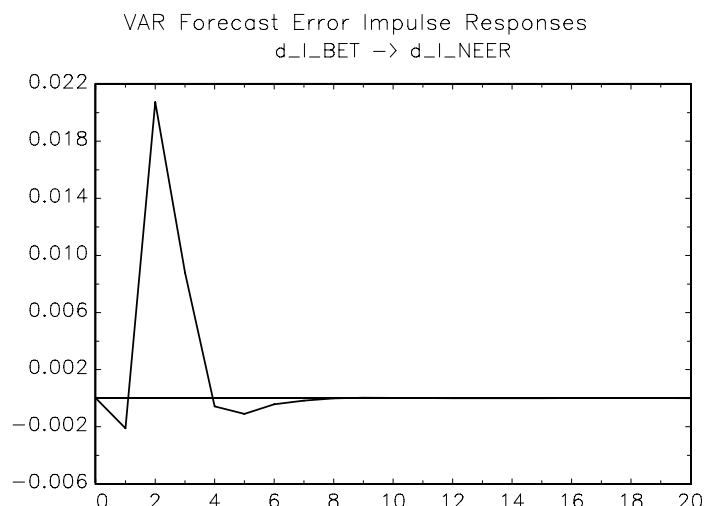


Figure 4. Responses of d_1_NEER to an impulse from d_1_BET

The responses of d_1_BET to an impulse from d_1_NEER are presented in the Figure 5. Initially d_1_BET rose but after a while fell sharply under the initial level and then it rose again to the initial value.

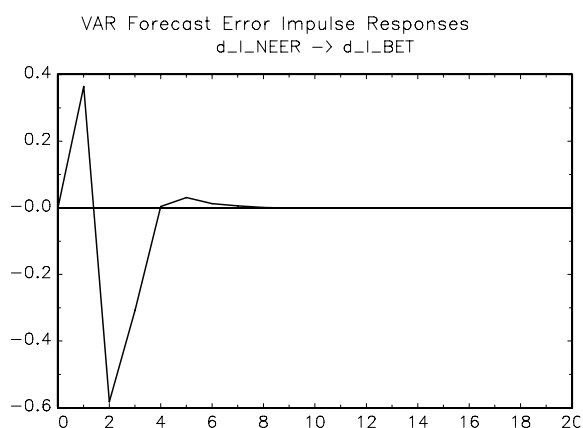


Figure 5. Responses of d_1_BET to an impulse from d_1_NEER

4.4. Evaluation of volatility by ARCH-GARCH models

We quantify the volatilities of the two variables by conditional variances provided by ARCH and GARCH models. Since the variables in levels are not stationary we use their first differences.

4.4.1. ARCH and GARCH models for d_1_BET

For the observations from the first sub-sample, the most adequate model for the volatility of d_1_BET proved to be a GARCH (1,1) with d_1_BET⁺ as independent variable (see Table 9).

Table 9. GARCH model for the first sub-sample with d_1_BET as dependent variable and $d_1_BET^+$ as independent variable

<i>Variables</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>z-stat</i>	<i>p-value</i>
const	-0.00918041	0.000725683	-12.6507	<0.00001***
$d_1_BET^+$	0.0192794	0.00107664	17.9070	<0.00001***
alpha(0)	1.85496e-05	5.12726e-06	3.6178	0.00030***
alpha(1)	0.302636	0.118265	2.5590	0.01050**
beta(1)	0.544806	0.0816058	6.6761	<0.00001***

Mean dependent var	0.000162	S.D. dependent var	0.015087
Log-likelihood	1779.628	Akaike criterion	-3547.256
Schwarz criterion	-3521.407	Hannan-Quinn	-3537.154

Figure 6 presents the conditional variance obtained from this model. It shows that periods of high volatility alternate with more tranquil periods of time.

For the second sub-sample the best fitted model for d_1_BET volatility is an ARCH(2) with $d_1_BET^+$ as independent variable (Table 10). The conditional variance of d_1_BET , presented in the Figure 5, reveals a high volatility from the end of 2008 to the beginning of 2009 (Figure 7).

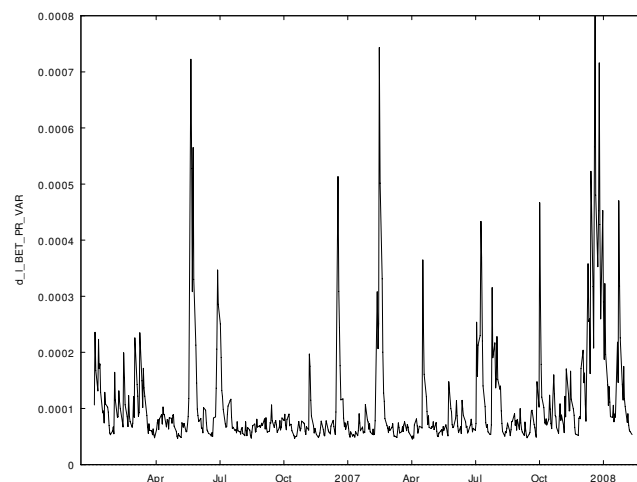


Figure 6. Conditional variance of d_1_BET obtained from a GARCH (1, 1) model using observations from the first sample

Table 10. ARCH model for the second sub-sample, model with d_1_BET as dependent variable and $d_1_BET^+$ as independent variable

<i>Variables</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-ratio</i>	<i>p-value</i>
const	-0.0199843	0.00125767	-15.8899	<0.00001***
$d_1_BET^+$	0.0390134	0.0018115	21.5365	<0.00001***
alpha(0)	0.000248652	5.5006e-05	4.5205	<0.00001***
alpha(1)	0.146318	0.0503343	2.9069	0.00386***
alpha(2)	0.185568	0.0503308	3.6870	0.00026***

Statistics based on the weighted data

Sum squared resid	374.2449	S.E. of regression	0.989797
R-squared	0.548368	Adjusted R-squared	0.547186
F(1, 382)	463.8213	P-value(F)	6.37e-68
Log-likelihood	-539.9318	Akaike criterion	1083.864
Schwarz criterion	1091.765	Hannan-Quinn	1086.998
rho	-0.009338	Durbin-Watson	2.015460

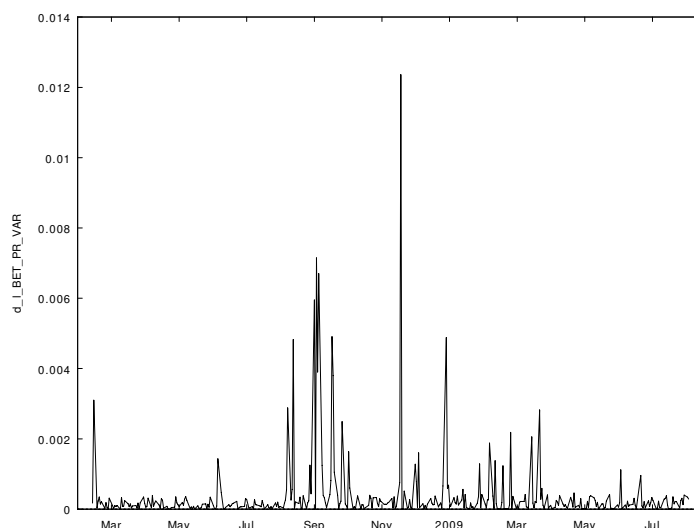


Figure 7. Conditional variance of d_1_BET obtained from an ARCH (2) model using observations from the second sub-sample

4.4.2. GARCH models for d_1_NEER

For the first sub-sample, the most adequate model for the volatility of d_1_NEER proved to be a GARCH(1,1) with no independent variable (Table 11). The conditional variance of d_1_NEER provided by this model has highest values at the end of 2008 and at the beginning of 2009 (Figure 8).

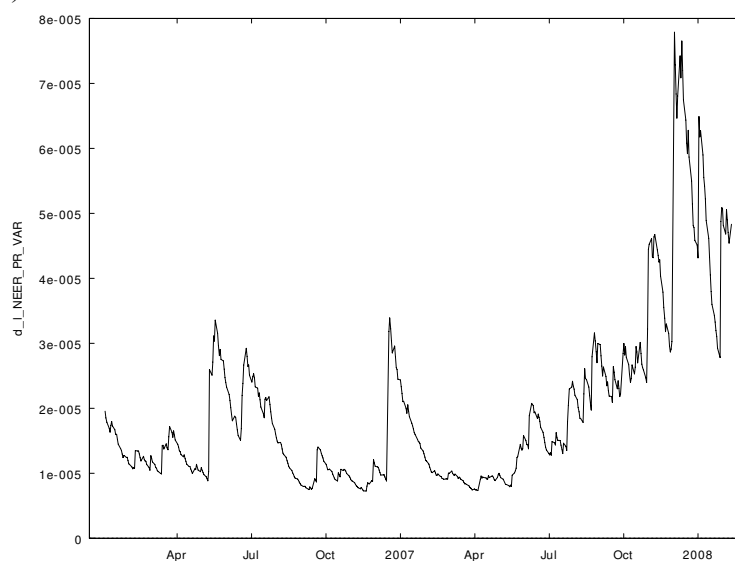


Figure 8. Conditional variance of d_1_NEER obtained from a GARCH (1, 1) model using observations from the first sub-sample

In the case of the second sub – sample the best fitted model is a GARCH(1,1) with $d_1_NEER^+$ as independent variable. The conditional variance provided by this model is highest in the fourth quarter of 2008 (Figure 9).

Table 11. GARCH model for the first sub - sample with d_1_NEER as dependent variable

<i>Variables</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>z-stat</i>	<i>p-value</i>
const	-0.000228071	0.000136497	-1.6709	0.09474*
alpha(0)	3.38331e-07	2.64551e-07	1.2789	0.20094
alpha(1)	0.0578618	0.021375	2.7070	0.00679***
beta(1)	0.928646	0.0288128	32.2303	<0.00001***

Mean dependent var	0.000017	S.D. dependent var	0.004411
Log-likelihood	2245.824	Akaike criterion	-4481.648
Schwarz criterion	-4460.108	Hannan-Quinn	-4473.230

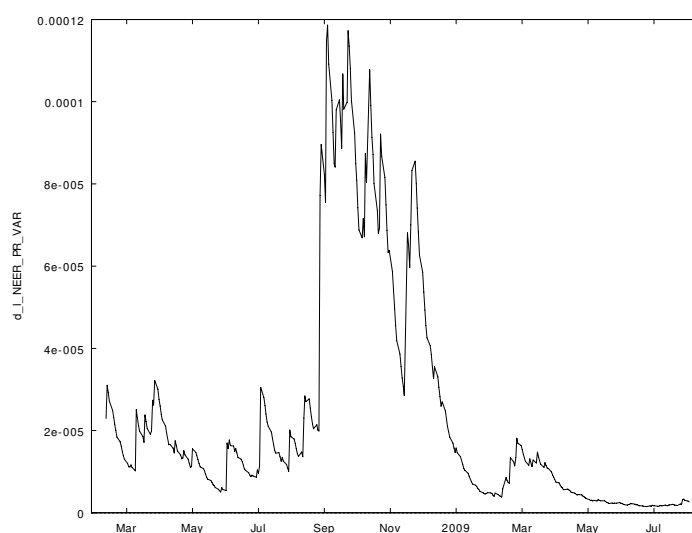


Figure 9. Conditional variance of d_1_NEER obtained from a GARCH (1, 1) model using observations from the second sub-sample

Table 12. GARCH model, for the second sub-sample with d_1_NEER as dependent variable and $d_1_NEER^+$ as independent variable

<i>Variables</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>z-stat</i>	<i>p-value</i>
const	-0.00201783	0.000327298	-6.1651	<0.00001***
$d_1_NEER^+$	0.00465787	0.000551805	8.4412	<0.00001***
alpha(0)	2.71953e-08	5.21455e-08	0.5215	0.60200
alpha(1)	0.0830708	0.0361925	2.2953	0.02172**
beta(1)	0.916929	0.0330954	27.7056	<0.00001***

Mean dependent var	0.000320	S.D. dependent var	0.006006
Log-likelihood	1609.333	Akaike criterion	-3206.667
Schwarz criterion	-3182.932	Hannan-Quinn	-3197.255

4.4.3. Evaluation of the interactions between the volatilities of exchange rates and stock prices using GARCH models

We introduced, for the first sub-sample, d_1_NEER as independent variable in ARCH and GARCH models with d_1_BET as dependent variable. The best fitted was proved to be the GARCH (1, 1) model presented in the Table 13. Based on the value of z-stat we may conclude the coefficient of d_1_NEER is statistically significant and the exchange rates variation has a considerable effect on the stock prices volatility.

Table 13. GARCH model for the first sub-sample with d_1_BET as dependent variable and with d_1_NEER and $d_1_BET^+$ as independent variables

<i>Variables</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>z-stat</i>	<i>p-value</i>
const	-0.00914798	0.000643468	-14.2167	<0.00001***
d_1_NEER	-0.531937	0.126888	-4.1922	0.00003***
$d_1_BET^+$	0.0190936	0.000947756	20.1462	<0.00001***
alpha(0)	1.79442e-05	5.02455e-06	3.5713	0.00036***
alpha(1)	0.23699	0.0851413	2.7835	0.00538***
beta(1)	0.583377	0.0740369	7.8796	<0.00001***

Mean dependent var	0.000162	S.D. dependent var	0.015087
Log-likelihood	1796.033	Akaike criterion	-3578.065
Schwarz criterion	-3547.909	Hannan-Quinn	-3566.280

We found also for the first sub-sample a GARCH (1, 1) model with d_1_NEER as dependent variable and with d_1_BET and $d_1_NEER^+$ as independent variables (Table 14). The coefficient d_1_BET is statistically significant, so we may conclude the variation of stock prices has a considerable effect on the exchange rates volatility.

Table 14. GARCH model for the first sub-sample with d_1_NEER as dependent variable and with d_1_BET and $d_1_NEER^+$ as independent variables

<i>Variables</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>z-stat</i>	<i>p-value</i>
const	-0.0023877	0.000168048	-14.2084	<0.00001***
$d_1_NEER^+$	0.00498263	0.000313391	15.8991	<0.00001***
d_1_BET	-0.0466497	0.013389	-3.4842	0.00049***
alpha(0)	1.08425e-07	9.47942e-08	1.1438	0.25271
alpha(1)	0.043323	0.0197817	2.1901	0.02852**
beta(1)	0.950385	0.0186357	50.9980	<0.00001***

Mean dependent var	0.000017	S.D. dependent var	0.004411
Log-likelihood	2436.336	Akaike criterion	-4858.673
Schwarz criterion	-4828.516	Hannan - Quinn	-4846.887

For the second sub-sample we didn't find any ARCH or GARCH model which allows combinations of d_1_BET and d_1_NEER .

4.5. Tests of the Granger causality between exchange rates and stock prices

We tested the Granger causality between d_1_NEER and d_1_BET . For the first sub-sample we found no causality. Instead, for the second sub-sample the results indicate a unidirectional causality from exchange rates to stock prices (Table 15).

Table 15. Tests of Granger causality between the variables

Period of time	Null hypothesis	F-statistic	P-value	Causal inference
Jan 2006 to Feb 2008	H0: d_1_NEER do not Granger-cause d_1_BET	0.0313	0.8597	d_1_NEER do not Granger-cause d_1_BET
	H0: d_1_BET do not Granger-cause d_1_NEER	0.0993	0.7528	d_1_BET do not Granger-cause d_1_NEER
Mar 2008 to Sept 2009	H0: d_1_NEER do not Granger-cause d_1_BET	4.6682	0.0097***	d_1_NEER Granger-cause d_1_BET
	H0: d_1_BET do not Granger-cause d_1_NEER	2.0822	0.1254	d_1_BET do not Granger-cause d_1_NEER

5. Conclusions

In this paper we investigated the financial linkages between the exchange rates and the stock prices. We used a sample of daily values divided in two sub-samples: one from the relative tranquil period of time between January 2006 and February 2008 and the more volatile period between March 2008 and September 2009. We found that for the two sub-samples both variables are integrated at the order 1. However all the tests applied indicated that we cannot reject the hypothesis of no cointegration between the exchange rates and the stock prices.

We analysed the interactions between the two variables in a VAR framework. For the first sub-sample we did not find any suitable VAR model. From a VAR model for the second sub-sample it resulted that the stock prices react to the exchange rates variation much more substantial than the exchange rates to the stock prices variation. We tested for the both sub-samples the Granger causality between the two variables.

For the first sub-sample we could not reject the hypothesis of no causality. Instead, for the second sub-sample, we found a unidirectional Granger causality from the exchange rates to the stock prices. We evaluated the volatilities of the two variables using ARCH – GARCH models. From the first to the second sub-sample we identified significant changes in the conditional variances, especially for the stock prices. We found that very often the conditional variances of the two variables have similar patterns.

We investigated the correlations between their volatilities by GARCH models with independent variables. For the first sub-sample we found that the variation of a variable could influence the volatility of the other variable. Our finding confirmed for the second sub-sample the traditional approach of the financial links between the FOREX market and the stock market. It could be an effect of some Romanian financial markets particularities.

Firstly, on the FOREX market the NBR interventions are still determinant, annihilating partially the effects of the stock market evolutions. Secondly, The Romanian stock market is very sensitive to the foreign stock markets, so the influence of the FOREX market is significant only for abrupt variations of the exchange rates. In the first sub-sample such changes were quite seldom, but in the second sub-sample they occurred pretty often. This investigation could be completed by the analysis of the interactions between the conditional variances of the exchange rates and the stock prices.

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The Financial Diagnosis – Component of the Global Diagnosis and Instrument of the Financial Analysis

Ștefăniță ȘUȘU

„Ștefan cel Mare” University of Suceava, ROMANIA
stefanitas@seap.usv.ro

Mihaela BÎRSAN

„Ștefan cel Mare” University of Suceava, ROMANIA
mihaelab@seap.usv.ro

Abstract

Considering the general point of view, the concept of diagnosis has assumed the identification of disfunctionalities specific to its activities, as well as the analysis of facts and responsibilities, identification of causes and measurements that have to lead towards the improvement of the economical-financial situation. Of the same mind, other specialists in the field have been aware of this, and whom opinion is summarized to the fact that analysis of a diagnosis has assumed the localization of symptoms, of disfunctionalities related to a company, the research and analysis of facts and responsibilities, identification of causes specific to disfunctionalities, the elaboration of certain programs of activity, where the recovery or amelioration of performances is being assured by using their practical applying. As a matter of fact, performing a company's diagnosis can be motivated not only by the situation where this shows difficulties, or disfunctionalities respectively, but also when an enterprise proves a health state, but wishes its improvement.

Keywords: global diagnosis, financial diagnosis, financial analysis, enterprise.

Jel code: M41, O12

1. Introduction

Being a component of the evaluation activity, the diagnosis has assumed the emphasizing within a manner at the best correctness and completeness of the strong and weak points specific to an enterprise. The elaboration of a company's strategy is established for almost all the situations within a profound analysis of all components that are in competition towards carrying out the activities. Upon basis of a diagnosis, many elements can be identified, which might determine the increasing of a company's value or in contrary, its decreasing. Practically speaking, a prognosis of a company's progress can be accomplished, without knowing the current situation of its, fact that suggests the dependency of applying the evaluation methods based upon updating the future flows of cash or incomes specific to a pertinent diagnosis. The patrimony's methods cannot be applied so much in good conditions without running over this stage, where all these will lead towards the necessity of issuing the global diagnosis of an enterprise.

The diagnosis has as aim the description of functionality and tendencies of evolution towards the economic body's activity, taking into consideration the dynamic environment, where this is carrying out the activity, and also the disturbing factors, either internal or external.

The diagnosis analysis might present different levels of detailing, and also might refer to different durations of time (on short, middle or long term) and are able to show different finalities, such as:

- Establishing the deficiencies of functioning and of their causes (weak points), minimizing the risks to which an enterprise might be exposed;
- Ascertaining the competitive advantages of the enterprises (strong points);
- Identifying the directions of increasing the profitability;
- Strategic orientation of development;
- Estimating the impact of modifications specific to enterprises.

The diagnosis of an enterprise is accomplished by the company's management, by representatives of its, by external specialists (including the consulting companies), of mixed teams formed of internal and external specialists.

As any other activity, an enterprise's diagnosis assumes the following:

- Establishing the problems exposed to the diagnosis program;
- Assuring the necessary information;
- Analysis and presenting the results into a report where objectives, states, appreciations and recommendations are emphasized.

The diagnosis analysis is not limited towards radiography and appreciation of states specific to different phenomena, but also represents an organic part of the foresight management, respectively to the strategic management. As concerns the opinion of the well-known specialist Peter Drucker within the management field, an efficient leader sacrifices 50% of time towards the problems of the activities' diagnosis.

In particular, by a diagnosis program related to a company, knowing all the chains of its activities, meaning that juridical, technical and of production, or those social (human resources) and economical-financial, etc., as well as the corresponding strong and weak points. These facts will reach the aim of emphasizing the working parameters of a company, estimating the performances and the risks specific to a future activity. Meeting the difficulties into the economic activity, registering certain negative results and crossing crisis times or the existence of a staff not enough motivated will not represent fatalities, but events that happen currently to an enterprise's life.

The economic-financial damaging of an enterprise's activity will not be ever accomplished in a brutal way, but will be based upon the existence of certain underlying causes, which have to be met and managed very fast. Nonetheless, there will be no solution as long the managers don't know about a potential difficulty state. For this reason, the damaging will be maintained and also will grow worse along with time passing, if no interventions on time are performed, by the diagnosis of activities and through a straightening plan. The diagnosis represents a performing instrument of the precognition analysis. It assures to the decisional factors that realistic vision over the situation and over the damaging process, as well as the starting point on establishing a plan of reorganization or dissolution.

The diagnosis of an enterprise, such as mentioned above, has as objective the identification of weak points of activity, in order to correct them and the strong points, in order to exploit them in achieving better results. But, in the situation of an enterprise being in difficulty, two *restrictions* of the diagnosis are met:

1. This has to be *fast*, because the time represents an essential factor on correcting the potential difficulties identified; otherwise, the degradation might growing worse;
2. This has to be *pertinent*, in order to adequately mobilize the responsible factors nad of accelerating the process of recovery.

At the same time, each enterprise looking to responds adequately to a difficult situation, has to take into consideration the fact that it progress within an environment characterized by opportunities and risks. The diagnosis of a hard-set enterprise has to appreciate the potential of the business and the benefits of which this disposes, where a fatal error might be represented by trying to recover a non-viable enterprise. As conclusion, the diagnosis analysis shows an essential part into the evaluation, regulation and improvement of economical-financial

performances of an enterprise. That is the reason for which it represents the basis of feasibility studies and of those concerning the economic evaluation specific to enterprises.

2. The financial diagnosis – a component of the global diagnosis

The global diagnosis has been intended, within a synthetic shape and operative way, to helping the accomplishment of the functions concerning the analysis-diagnosis over knowledge and interpretation of the economic reality, of establishing the key variables towards the economical growth, of informing the parts interested of diagnosis results, of elaborating the measurements and strategies to be met, in a dynamic competition environment, etc.

The global diagnosis, besides the financial appreciation, is also assuming:

- a juridical diagnosis;
- a diagnosis of the technical potential specific to the company;
- the diagnosis relating the trade activities and those of external business environment;
- the diagnosis of human resources and those specific to human resources management.

The financial activity has had an particular contribution to the regulation and control of a company's activity, because the finalization of each economic activity is announced by financial terms, and restarting the process of "*value production*" (considering that within specialty literature, the profit stopped to be announced as major objective of the economic activity, its position being emphasized by ensuring the company's viability and, most important, the growth of the enterprise's value) will assume the use of financial resources. In this way, the economical-financial analysis plays an important part within the global or partial diagnosis as concerns an enterprise's activities.

As regards the financial diagnosis, this has been met both as element of the integral diagnosis specific to the enterprise, as well as separately, as partial diagnosis necessary for other categories of beneficiaries. As result, the financial diagnosis can offer nothing but a partial and specialized look over the financial situation and performances of the company, its demarche being directed towards studying the following:

- the capacity of an enterprise over ensuring the immediate and in time credit-worthiness, more precisely towards avoiding the bankruptcy risk;
- the ability of proving enough performance, by taking into consideration the resources employed to developing the activity;
- the aptitude of re-financing the activity, of disposing of enough resources in order to face out the financial risk.

The economical-financial analysis can represent a component of the global diagnosis specific to an enterprise, for instance as concerns the evaluations of enterprises, of the business plans, etc. But, this also might be exclusively registered within an extended financial diagnosis, which might assume the exam as regards the financial aspects of the company's activity, such as reports for soliciting a credit towards the capital market or towards the stockholders. The analysis can also be singularized on a certain problem concerning the situation of the company by taking into account the financial aspect, but not necessarily being registered within circumstances of a financial diagnosis (appreciating the performances for an investor, studying the credit-worthiness for a creditor etc.).

The purposefulness is offered by the reasons that have required the financial diagnosis. Therefore, if a diagnosis is related to crisis or the financial situation of the company is intended to be improved, the analysis will be fulfill by taking some decisions over the management of funds (studying the capacity of self-financing, the working capital necessary for exploitation, the investments or financing plan, etc.). The control carried out by means of financial analysis provides indicators and documents of synthesis, which allows the looking after and controlling over applying certain decisions of management. With the aid of these, a comparison can be made between the level of indicators and the foreseen objectives and values, thus establishing a

precursory condition, used in order to correct the trend related to company's activity or to modify the previous non-fundamental decisions.

The financial diagnosis might interfere, as been mentioned, over different situations, reaching distinct shades of which they depend upon:

- it becomes *a strategic diagnosis* when looking for both strong and weak points, specific to the enterprise's activity, on both using its economic potential, as well on using its relationships with the external business environment;
- it is established under the form of *a foundationer diagnosis*, when having in view the relationships and framing of the enterprise into money market, if this is quoted. The indicators provided by this financial diagnosis represent an essential element towards guiding the decisions of investments or disinvestments into stock securities, both for the company in discussion and also for the other investors on the money market;
- it represents *an evaluation diagnosis* when it contributes towards clarifying some elements necessary to establishing the value of an enterprise, in situation of certain investment operations, of consolidation or absorption, etc. The financial diagnosis might determine directly the patrimony value of the company or might provide the indicators necessary for establishing its outturn value, due to allowing the appreciation of the lasting beneficiary ability specific to company;
- it describes *a crisis diagnosis*, when interfering in the view of determining the difficulties a company, and aims for its recovering. In this case, the prior aim of the diagnosis consists in determining if a company is able to maintain or to recover the credit-worthiness on short term.

The financial diagnosis and the valences related to difficulty state are represented in the following figure:

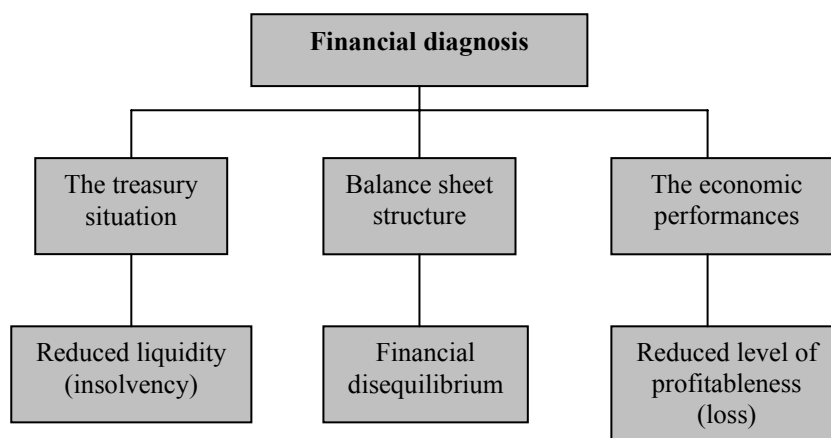


Figure 1. Financial diagnosis and valences specific to difficulty status

An enterprise represents a production system of whom components are in high connection and interact in the view of accomplishing the mission and of the established objectives. Within this context of inter-conditioning, the process of degradation related to the enterprise's activity might start in less or higher measure and might be emphasized through one of the activity fields, or through all, by means of an efficient management; in this manner, it has become necessary to identify in time the potential disfunctionalities that exist, in order to make provision for their removal. An efficient diagnosis needs the running through three stages, all inter-dependent, such as:

1. identifying of disfunctionalities that support the basis of the degradation process;
2. establishing the measures necessary to remove them;
3. adopting the necessary decisions by the management, in order to apply the stipulated measurements.

Running through these stages has become compulsory, as concerns the succession above mentioned, so as to achieve a stopping of the degradation process. Within the first stage, meaning the identification of disfunctionalities, the diagnosis program has to emphasize especially the factors that attack the activity, both of external and internal type, thus evaluating the negative influence of these, the risks and threatening that come from here over the future activity of the enterprise. The diagnosis stage of the enterprise's activity is very important, because it might obviously emphasize the factors, causes and consequences that run from their activity.

The management of the enterprise, within the second stage of the diagnosis, is necessary to foresee the measurements able to prevent the negative actions of the factors of the surrounding environment and the internal causes, which produce disfunctionalities and contribute over the process of degradation. As concerns the stage of the degradation process, the management of the enterprise has to adopt proper strategies of recovering and reappearing to a profitable situation, having prior objectives for each field of the enterprise's activity.

Implementing the established objectives, the politics and measurements of recovering need the adopting of their implementation decisions, and of aiming towards their implementation, upon basis of some plans of technical-organizational measurements, with proper stipulations of removing the existing disfunctionalities. The activity of diagnosis program specific to the existing disfunctionalities has to own a complex character, over the fields to enterprise's activity, such as the technical and production activity, such as that having the trade character, that of organization and management, that having a social or financial character; the diagnosis analyses for each activity their particular problems, with observing those aspects that contribute towards the degradation process or to its emphasis, where a plan of recovering containing measurements for each activity field is recommended to be created.

The diagnosis aims towards appreciation the health state of the enterprise, thus strongly manifesting the causative cognitive system, and without them explaining of phenomena will not be possible. The diagnosis assumes the measurement of performances and appreciation of vulnerabilities, identification of causes and context, which generated this status, without proposing certainly the applying of a recovering program or treatment. This fact doesn't have to induce the hypothesis that diagnosis might have a passive part in a high degree, and contrariwise, it offers substance to future strategic directions, by the fact that it offers information about weak and strong points, about the potential risks and future chances of the enterprise.

The critical points of an enterprise are illustrated by diagnosis, and upon basis of these repeating, the decision centers are aimed, in order to take the necessary measurements of regulation and of ensuring their steadiness.

The diagnosis doesn't only have to be performed in situations where deregulation signals appear, but also when the normal functionality of the enterprise is established. The diagnosis does not represent an entity specific to the crisis, but one of acknowledge. Its permanency character (although a desideratum unreached by most of companies) might be argued and facilitated through the automatic processing of data, by massive presence of the informatics into micro-economy, which makes fast acquirement, made in real time and in any aimed structure of the state information related to an enterprise, not to represent a problem anymore. Likewise, by the same fastness and within the same context of facilities, the possibility of achieving the signal of deregulation is submitted also, and as consequence, the re-systematization of needs and objectives related to the economical-financial analysis, in the view of reaching to information need to establish an enterprise. The activity of a diagnosis program towards the existing disfunctionalities has to show a complex character, over the fields to enterprise's activity, such as the technical and production activity, such as that having the trade character, that of organization and management, that having a social or financial character; the diagnosis analyses for each activity their particular problems, with observing

those aspects that contribute towards the degradation process or to its emphasis, where a plan of recovering containing measurements for each activity field is recommended to be created.

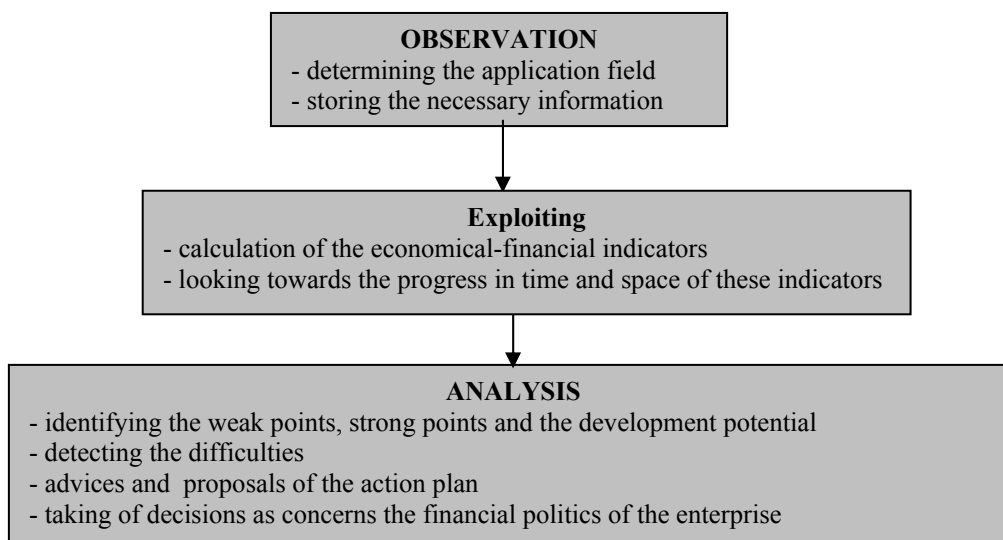
Diagnosing the enterprise's activity, over fields of activity, might emphasize a series of positive aspects, which create strong points as concerns the activity and which have to be capitalized, thus representing future opportunities of enterprise's activities. It has become necessary for an enterprise's activity diagnosis to be performed on fields of activity, and the main characteristics aspects have to be evaluated. As concerns the technical and production field, the diagnosis has to carry out an analysis of the activity into this field, emphasizing the performances and lack ascertained, thus appreciating in critical way the activity. The trade diagnosis will have to aim look for the trading performances an lack signalized into this field, situation when the marketing mixture is efficiently applied; therefore, appreciations over the efficiency of applied trade politics will be drawn.

Accomplishing a diagnosis towards the organization activity will aim in particular the measurement by which the organizational structure will assure the optimal frame of capitalizing the resources of an enterprise, In situation when the system of information and management controlling will help to leading an enterprise, to emphasizing the weak points, which might denote a degradation process or on contrary, will contribute to the accomplishment of certain efficient activities.

A particular attention is necessary to be paid to diagnosing the social field, and looking for characterizing the social climate, of the quantitative and qualitative aspects, that might influence positively or contrariwise, of reducing the productive activity of the enterprise. An essential part of the activity's diagnosis, which reflects a good or bad situation of the enterprise, is that regarding the financial field, which reflects by a system of value's indicators, the level of viability to enterprise, or the measure by which the enterprise started a process of economical degradation, as result of the existing disfunctionalities into different area of activity.

The financial diagnosis has to characterize the situation of profitableness and of liquidity, of the financial flows or the measurement, by which the structure of the financial area is such protected that it might contribute to a reflection of positive or negative results of the enterprise's activity.

The financial analysis shows a retrospective feature, behaving a synthesis and interpretation stage – *the financial diagnosis* – whose objective is directed especially towards the profitableness and anticipation of risks, and in particular, towards the financial risks, which threaten the enterprise. In practice, the situation established at a certain moment of time includes elements for this situation conversion. Looking to the tendencies established during period of time, an evolution of the financial situation might be anticipated, by taking into consideration the new elements susceptible of interfering over the enterprise's life. The financial diagnosis represents an essential component of the general diagnosis (economical-financial), where the last one allows the establishment of *health balance* specific to the enterprise. The financial diagnosis allows the evaluation of the financial situation as regards the enterprise, in accordance to three main dimensions, such as ***financial structure, liquidity and profitableness***, by identifying the strong and weak points of the financial management, thus appreciating the past, present and future risks, that run out from the financial situation and the solutions in order to decrease the risks and improving the results. Therefore, considering the opinion of two French prestigious professors on accountability and management, Béatrice and Francis Grandguillot, the financial diagnosis includes three stages (phases), as following:



Source: Grandguillot, Béatrice, Grandguillot, F., *Analyse financière*, Editura Gualino, pg. 21

Figure 2. Structure of the financial diagnosis

The financial diagnosis is usually necessary to be performed during a period of at least three years, by using the data of accountancy with those regarding the financial feature, and in particular, the elements of balance sheet structure with those related to benefit and loss account, where the results achieved are compared with similar data and indicators, achieved by the enterprises operating within the economical branch.

Diagnosing the financial structure includes three main components, meaning:

- diagnosing of the financial balance;
- diagnosing the financial interdependency, having a particular emphasis over the evaluation of credit-worthiness;
- diagnosing the level of indebtedness as concerns the enterprise.

Diagnosing the financial structure has to emphasize in which context the harmonization is ensured between the financial resources existing at the enterprise's disposal, and also the way of their using. Therefore, it will emphasize the margin of safety, by which an enterprise disposes after financing the means of action running from own resources.

Taking into consideration this diagnosis, the insufficiency of working means might result, due to an increase of the manufacturing flows, of investment or of increasing the casualties, and so forth. Evaluating the financial balance, by taking into account the working capital, confrontation of the liabilities on long term (permanent capitals) with the permanent needful (unused assets) might result, as runs out from the superior part of the financial balance sheet:

$FRF = \text{Permanent capitals (Own capitals + Debts on long and middle terms)} + \text{Provisions for risks and expenditures} - \text{Permanent needful (Net unused assets)}$.

This method emphasizes the financial equilibrium on long term, where the working capital represents the part of permanent capitals, remained after financing the unused assets, which the enterprise dedicates to financing the floating assets. It represents the part of the capitals with a weak due degree, that servers to financing the assets elements having a liquidity level as good as increased. Along with the working capital, the margin of safety of an enterprise will increase, fact that proves that a significant part of the floating assets is financed by permanent capitals. Reducing the working capital is caused by decreasing the permanent capitals (reimbursements of loans in long term or of bonds) and of increasing the net unused assets (investments). A steady working capital reflects the stagnation of an enterprise, which might be

temporary or lasting, having different causes. The inferior side of the financial balance sheet allows the determination of financial working capital as difference:

$$FRF = (\text{Floating assets} + \text{Expenditures beforehand}) - (\text{Debts on short term} + \text{Revenues beforehand})$$

This method emphasizes the pretentiousness and purposefulness over the working capital, which is financed by the floating assets. In this situation, the financial working capital shows the surplus of net floating assets, financed by the temporary debts, thus emphasizing the overplus of potential liquidity, as margin of safety as concerns the credit-worthiness of an enterprise.

Theoretically, the working capital has to be positive, but this fact doesn't prove that in certain cases, a negative working capital might not exist, without compromising the good operating of the enterprise. A positive working capital represents a margin of safety of the enterprise for its daily exploitation, thus allowing to ensure a minimal level of some floating assets strictly necessary to the functioning (minimal stocks, minimal cash funds), where the floating assets has become superior to dues on short term.

A negative working capital represents an alarm signal for the enterprise, that will be in lack of permanent capitals enough for assuring the financing of unused funds or enough for having floating assets, inferior to the payable debts on short term, which might not be paid.

The diagnosis of the financial interdependency allows the emphasizing of own funds part, within the enterprise's financing, the evaluating the measure by which an enterprise finances its means of action with own methods. In order to achieve this diagnosis, percentage indicators of credit-worthiness are used, which have resulted from reporting the own funds to the total of liabilities or from reporting the own funds to the permanent capitals. This diagnosis might draw into picture the status of payments stopping, thus characterizing the financial health state related to the potential bankruptcy of the enterprise.

The analysis of the enterprise's indebtness, meaning the third component of the financial structure diagnosis, allows the evaluation of the part owned by third parties within the total of financing sources and the measure by which its action means are financed, by using the external financing sources. This diagnosis assumes the calculation of indebtness indicator, by performing the report between the enterprises debts and total of liabilities. The analysis of the enterprise's indebtness level, as concerns the negative situations, will draw up the high level of financial asphyxia.

The analysis of financial profitableness, the second part of the financial diagnosis fills in the area of indicators on appreciation over the economical-financial performances related to the enterprise, known under the name of **intermediary sale goods of management** or **margins of storage**. The intermediary sale goods of management are determined by successive differences between two or more values, some specific to revenues type, others depending upon the expenditures nature. That is the reason for which, a balance on current account enters within the calculation of the following intermediary balance, fact that led towards a name of **cascade of intermediary sale goods of management**. The indicators resulted after this calculation procedure offer details over the provenience of net result of the exercise and over the cause that have generated that respective result.

A part of the intermediary sale goods of management is characterized by the performance of the production and trading activity, meaning: the turnover, the margin of trading, the exercise production or the added value. Another part of these sale of goods characterizes the profitableness of the enterprise, meaning: the gross overplus (the deficit) of exploitation, the

financial result, the current result, the uncommonly result, the gross result and net result of the exercise.

The analysis of the liquidity represent the third component of the financial diagnosis. This analysis is carried by means of liquidity installments used within the studies of business and credit worthiness, performed by the trading banks, over the solicitors of credits. These installments show a qualitative content, because they catch synthesis aspects over the money flows, and respectively over the economic activity. Their quality also consists in the possibility of characterize the financial state of the enterprise, and respectively the financial balance sheet, thus illustrating the risk of not paying the current bonds or of the short term debts.

The higher the indebtness level is more pronounced, the more the enterprise will be exposed to the stress of procuring the liquidity on short term, reason for which is generally preferred to base upon own resources, as preponderant means. On the other hand, an enterprise is imposed to choose a rational structure of assets, so that the danger related to liquidities lack to be prevented.

The main objective towards the analysis of liquidity consists in measuring the ability of an enterprise, in order to face the financial commitments on short term. By this type of analysis, the accentuation of level, by which a certain enterprise might cover the current bonds from current resources, is aimed.

The analysis of an enterprise's liquidity is accomplished by means of installments of liquidity, which might be thus grouped:

1. **The installment of current or general liquidity** reflects the ability of an enterprise in order to cover the short term bonds, by transforming all floating assets into liquidities and is determined by reporting the current assets value (floating) up to the value of current liabilities (short term bonds).

2. **The installment of fast or reduced liquidity** expresses the aptitude of an enterprise in paying the debts on short term from those floating assets, which might be fast transformed in liquidities, meaning from claims and liquidness.

3. **The installment of immediate liquidity** measures the enterprise's capacity of reimbursement the debts on short term, by using the existing liquidness, being known under the name of *treasury on sight*.

4. **The installment on sight** reflects the level of covering the bank credits on short term upon basis of money liquidness.

5. **The installment of patrimony liquidity** illustrates the level of covering the current debts upon basis of money liquidness and of other means, that might become of liquidity character.

The installments of liquidity have proven a drawback, meaning that they base upon a static value, taken from the balance sheet and do not offer information as regards the money flows issued from the enterprise's activity. This issue might be repaired by taking into consideration the cash-flow, starting from the premise that synthesis papers also include a drawing of the treasury flows, which place **the treasury** towards the center of the accountancy-financial analysis.

This kind of situation precisely presents the inputs and outputs of liquidness generated by the enterprise's activity. The treasury has become a key information, because it assures the knowledge of financing method to an enterprise's activity, an essential element over appreciating its perennality. Upon basis of treasury, the indicators necessary to management and financial analysis on short and long term are determined. If this document is not elaborated, considering that is not compulsory for all enterprises, some issues might come out as regards the defining, calculation and interpretation of cash-flow concept.

3. Conclusions

The function of diagnosis has prevalently been related to conclusions of economical and financial analysis that have been accomplished, and which synthesize the weak and strong points of the company's activity, where finally these will underlie the survival chances.

Another fact is also imposed, as concerns the diagnosis of an enterprise, which has to be regularly carried out to three-four years or even less, since it allows the managing to achieve all the elements necessary in order to establish the company's status. An enterprise is founded, then is developed and finally reaches the maturity, but as concerns its lifetime, this might show turbulences towards its growth; these turbulences can appear under some crisis shape, often leading even to its disappearance, if there is no intervention over the elimination of causes generating the crisis.

Performing the financial diagnosis, although proving a static character, will allow a good evaluation of the economical health state, and thus assuring an acknowledgement in due course as concerns the weakness state and might represent the starting point in the view of reaching an assembly of measurements, in order to solve the future recovery and to make activities of dynamic character.

The conclusions, which result from those mentioned above, are that a diagnosis and the recovery represent two different demarches, that will not be misaddressed, even if they might be conditioned to each other.

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Design Mechanism as Territorial Strategic Capability

Gianita BLEOJU

gianita_b@yahoo.com

Lacramioara FOTACHE

lacramioarafotache@yahoo.com

Dunarea de Jos University of Galati

Abstract

The current exigencies that a territory must face in order to its' optimal positioning in future regional competition requires the ability to design the appropriate mechanism which better valorize the territory capability. Such a construct is vital for territorial sustainable development and supposes the creation of a specific body of knowledge from distinctive local resource exploitation and unique value creation and allocation. Territorial mechanism design is a typical management decision about identification, ownership and control of specific strategic capabilities and their combination in a distinctive territorial portfolio. The most difficult responsibility is to allocate the territorial value added which is a source of conflict among territorial components. Our current paper research covers the basics of two complementary territorial pillars-rural and tourism potential and proves the lack of specific design mechanisms which explain the current diminishing value of Galati Braila region. The proposed management system, relying upon territorial control mechanism, will ensure knowledge sharing process via collaborative learning, with the final role of appropriate territorial attractivity signals, reinforcing *identity* as key factor of territorial attractability. Our paper is fully documented on there years of data analyzing from territorial area of interest. This offers us the necessary empiric contrasting for our proposed solution.

Key words: territorial disruptive typicity, coordination design mechanism, sustainable development, collaborative learning, territorial change.

JEL Code: D23, D83, F23, L25, M21,M38, Q55,Q56, R5

1. Introduction

Mastering the territoriality change becomes a challenge for management due to the lack of predictive power of the current strategic modeling which fails in explaining the regional disparities. Many of the globalization hypotheses were empirically not validated and new explanation attempts are current investigated. In spite of specific strategic performance of territorial actors as *agents* with similar power, the regional attractability is still to be arbitrated under a *principal* contribution in terms of a coherent design of coordination, identity and learning⁵².

⁵² Bruce Kogut: "Knowledge, Options, and Institutions" Oxford 2008

Domains of research as economic governance, strategy, management and marketing must integrate their achievements to identify the best coordination mechanisms of value creation exploiting territorial capabilities and the final re-assignment of the results among territorial stakeholders. The difficulty of the attempt is obvious, due to the distinct own resource evaluation and exploitation by territorial actors which must be incentivized to accept a perspective of cooperation organization of transactions which better reallocate value created in terms of sustainable territorial competitive advantage. A territorial strategy is about refocusing upon how, in pursuit of a sharing knowledge and collaborative learning common vision, the territory aligns its goals and objectives, institutional structure, systems and processes, *beyond* each components performance. This exploration of typicity and exploitation by exposing the territorial capability is a disruptive behavior, hence source of sustainable competitive advantage through territorial brand consolidation.

The new design mechanism must be the most efficient in conflict resolution, the territory being the place of complex and nonstandard transaction⁵³; the actors are mutually dependent as their performance is relying upon local valorization of specific assets. Such an innovative management mechanism could be the solution for the increasing attractability of one specific location being a successful strategy as relies upon valorization of territorial disruptive typicity as location competitive advantage. This effort to build territorial trust relying upon strategic exploitation and allocation of valuable resources ensure the potential investors about that specific location. In the following our research addresses the two interrelated pillars of territorial capability specificity; tourism and rural system.

2. Capitalization strategies of distinctive resources potential

For the research undergone in the protected natural areas as well as their adjacent territories, of the managerial methods, the diagnostic-analysis and the SWOT method were selected and adapted accordingly, for the following reasons:

- ✚ the methods are applied for the outlining of the management of a zone which extends over vast areas within two counties and not for a firm or touring resort;
- ✚ within management strategy, a multitude of entities are taken into consideration (firms, central and local public administration institutions, national and international NGOs);
- ✚ touring activity management which would put into practice adequate strategy is strongly influenced by a plethora of factors which would impose solutions to either support or combat their effects.

The application of the diagnostic-analysis method of a territory requires passing through the following steps:

- a) Awareness of the principles of developing a touring scheme for the area, meaning :
 - harmonious integration of investments;
 - flexibility;
 - network independence;
 - correlating primary and secondary activities;
 - optimum functionality of the entire network system.
- b) Establishing the selection criteria of the touring areas, the most important being:
 - natural and socio-economic conditions, cultural, artistic and historical heritage, the status and perspective of infrastructure, the degree of equipment specific for touring, economic and juridical regulation.

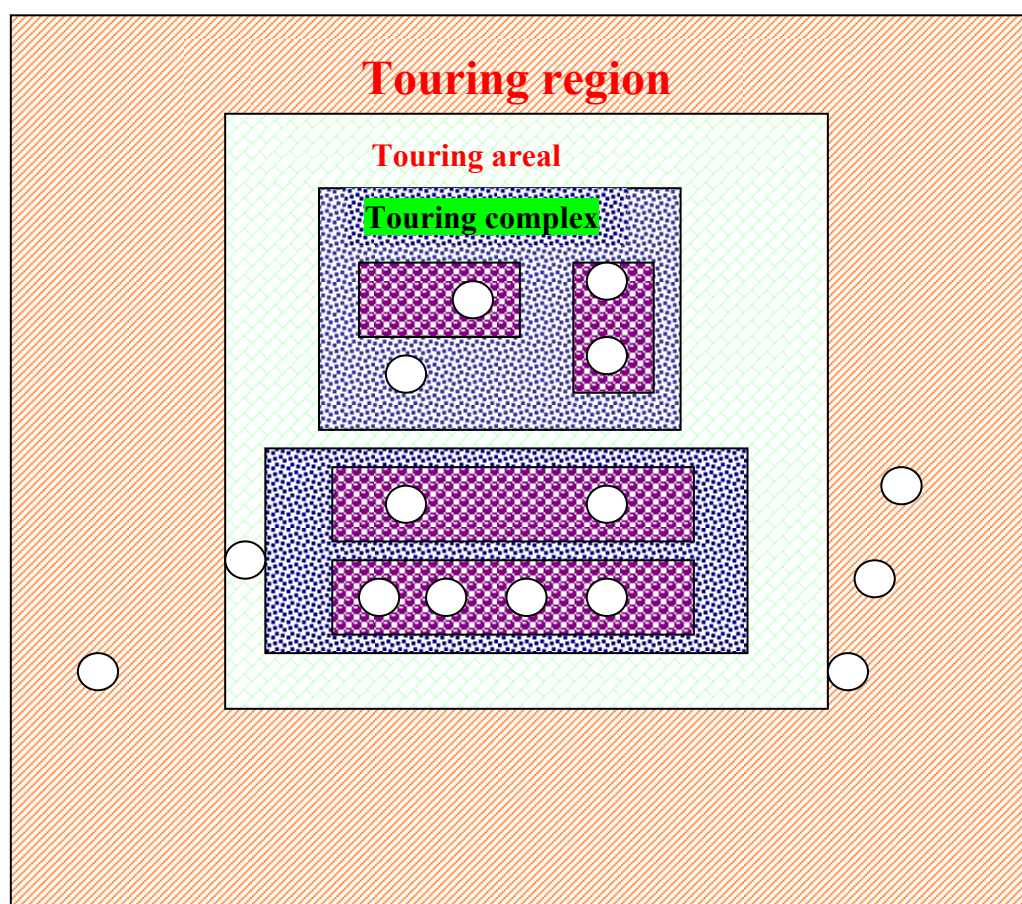
⁵³ Elinor Ostrom and Williamson Oliver; The Prize in Economic Science 2009;
http://nobelprize.org/nobel_prizes/economics/laureates/2009/info.pdf

Through close examination of the quantitative and qualitative parameters of each criterion, as well as their ensemble corroborated with the factors outlined above, one may determine the "calling of the region or area, criteria which will be useful for establishing priorities within the development process".

- c) The delimitation of the territorial units specific for touring activities
- the touring objective or point;
 - the touring place (town, village) or center;
 - the touring complex;
 - the touring areal;
 - the touring region;

The hierarchy of territorial unites with touring activity is given in figure no.1

Figure 1_The hierarchy of territorial units with touring activity



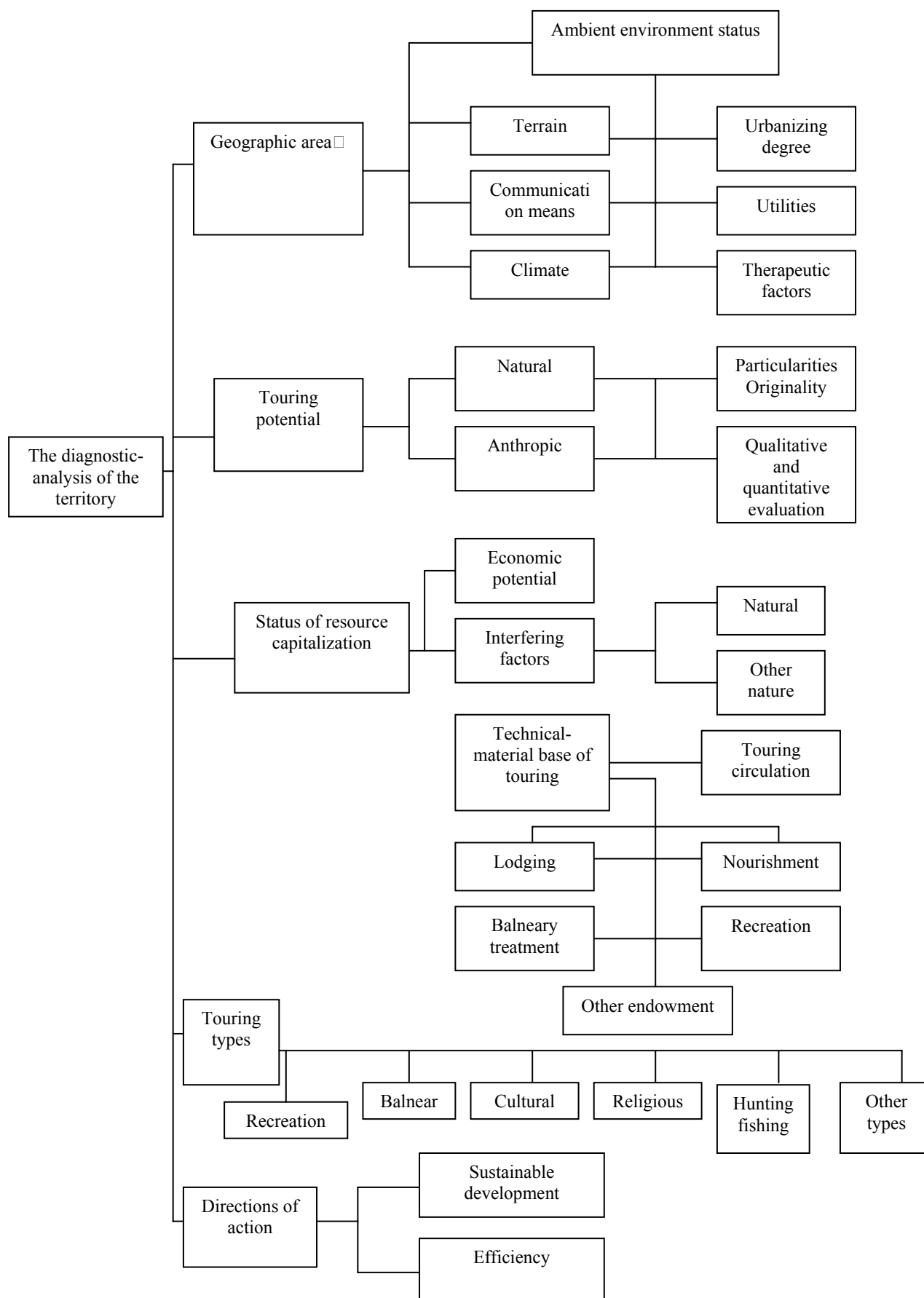
Legend:



The synthesis of the structure of the diagnostic-analysis of the territory considered for touring development is given in figure no. 2

Figure no. 2

Figure 2. The content of the diagnostic-analysis of the territory



The SWOT method for the touring development of the territory was selected for the following reasons:

- ✚ local public administration, firms, NGOs and administration of protected natural areas express their interest in capitalizing on the touring potential of the area, without harmonizing their efforts;
- ✚ the application of the SWOT method of analysis manages to bring out the strong and weak points, opportunities and threats on two levels which complete each other:
 - the ones regarding the touring development of the territory
 - the demands of the tourists, visitors, proposal formulated by them and voyage councilors.

The components of the method adapted for the current research project are the following:

S – Potential strengths

Natural and anthropic touring resources, possibilities of insuring the financing of development, manifested interest by the deciding factors, accessibility of touring potential on all communication means, the ascending trend of eco-tourism, the existence of therapeutic factors of mineral water sources.

W – Potential weaknesses

Deficient promoting of the touring potential, the technical status of railroads is precarious, incoherence is persistent in the actions of the local public administrations, touring activity has a season-based character and the appropriated area represent a strong competitor (Danube Delta and the seaside of the Black Sea).

O – Opportunities

Advantageous geographical position, interest in the area, future development possibilities, available human resources and regulation favorable for investing in the touring development of the area.

T – Potential threats

Protected natural areas impose practicing eco-tourism, quantitatively reduced vis-à-vis the demands, the presence, with an unpredictable frequency, of destructive natural phenomenon (floods, draught), the danger of proliferation of certain diseases, as well as the delaying of the implementation of certain ecological reconstruction programs of the adjacent areas of the protected natural territories.

In the theory and practice of area development strategies we cannot apply standard methods, in the true sense of the words, rather *solutions* which may be considered around an idea with regards to the multitude of factors which lay their imprint on the "model". The natural conditions will impose the setting up of developments which respond to certain conditions, such as the capitalization of existing natural resources and the harmonization of investments in specific equipment for touring activities with the existing utilities in the area.

The promotion of touring development in protected natural areas and their adjacent territories may be considered a beneficial as well as damaging endeavor, since, on the one hand, tourism contributes to the cessation of the degradation of the natural frame, protects and conserves the environment, representing a durable alternative to industrial and agricultural activities which negatively impact the environment; on the other hand, extending past certain limits of the developments has a negative impact on the natural protected areas and their adjacent territories.

The practice of a controlled form of tourism is therefore imposed, which would not modify or disturb the human activities of the area, but contribute to conserving traditions of architecture, ethnography, folklore, traditional trades, harmony between man and nature. Likewise, over-dimensional developments should be avoided; especially those which capitalize on the natural touring potential, a strict monitoring of the developments would also be imposed, in order to avert the planning and executing of objectives that are inappropriate, non-esthetic or not adapted to the local specificity. For the area in which the research was conducted, the developments will have to protect the existing touring objectives of the natural areas, at the same time, solutions for diversifying the offers regarding activities for spending free time should be investigated, as well as of the capitalization of the natural resources of the area (such as cane, bulrush, osier, clay, etc.) within reasonable limits, which would not disturb the normal, natural evolution of the area.

Special attention will have to be given to complex capitalization (balneary treatment, alternative energy and horticultural exploitation of the thermal mineral water sources in the 3 villages within the zones adjacent to the protected natural areas (Însurăței, Mihai Bravu și Berteștii de Sus).

2.1 Touring and hospitality-industry potential

In Europe and Romania especially, when the issue of Danube-related touring is tackled, several “targets” are mentioned, which represent a symbol for the most sought after European river – Vienna, Bratislava, Budapest – or Belgrade and the Danube Delta, and thus are neglected certain areas that have either kept or developed in time particularly interesting touring natures.

In the present research project, we took into focus two main components each placed on a bank of the Danube river – these being “Munții Măcinului” National Park and “Balta Mică a Brăilei” Natural Park, to these protected natural areas being added their respective adjacent zones – towns located close to them and the river. Geographically the area is placed between 44.42⁰ and 45.28⁰ north latitude and 27.40⁰ and 28.30⁰ east longitude.

The Danube River, as an axis which separates but also unites the protected natural areas and their adjacent territories, represent the last portion in which the water flow freely and one of the most important 200 natural areas in the world. Confronted with multiple problems, the river has lost in the last 200 years over 80% of the areas which could take over the overflow of excess water, in certain times of the year. This critical situation imposes measures of re-naturalization through investments sustained by the European Union, with a view to the touring exploitation of the entire areal. Through the Water Frame Directive of the European Union, the “reaching of the good ecological quality of all waters on the continent before 2015” is provisioned, and the course of the river will be strongly affected by the VIIth European Corridor project which is supposed to link the port of Rotterdam to the port of Constanța.

The present research was undergone on the part of the river between the town of Giurgeni (where the Danube splits into 3 branches – Old Danube, Vâlciu and Cremenea) enveloping the areas known as Balta Mare and Balta Mică a Brăilei, up to their convergence at Brăila; the research also covers Măcinului Mountains.

The components of the research area are:

- “Munții Măcinului” National Park as well as the towns in the territories adjacent to the protected natural area;
- “Balta Mică a Brăilei” Natural Park as well as the towns in the territories adjacent to the protected natural area.

Măcinului Mountains (Hercynian Mountains), considered the oldest mountains in Europe, through their unique geo-morphological structure of the flora and fauna, has led to declaring a large part of it a National Park. The main characteristics of this area are:

- The only area in Europe where Asian, Mediterranean and central European migrating bird species “intersect”;
- A part of the vegetation is situated at the extreme part of their world coverage: Pricopantului Peak is the main migration lane for over 180 species of birds (some birds of prey which nest here);
- It is an ideal place for bird Watchers;
- It has a particularly attractive touring potential through the accessibility of its touring lines and the natural and anthropic touring objectives;
- The reputable scientist Ion Simionescu postulated that “(our) school of tourism should start in Dobrogei Mountains. Towards altitudes under 500 m, you can live all of the thrills of mountain climbing”;
- The view offered by the jagged peaks of the mountain range has determined Romanian and foreign filmmakers to capture them in many Far-West type productions.

2.2. Rural system transformation potential

The rural system component of territorial typicity is unit of research in light of value co-creation based upon partner’s experience-as it meets different and unique thus difficult to replicate offerings. In other words, not product or service innovation, not even market innovation, but the institutional environment that enables the resource combination process and performs knowledge transfer in a determinate territory is the key resource.

Due to the changing patterns of competition spaces, we now are all aware that not only the classical combination between small and large firms’ complementary resources can facilitate innovation success, but also the territorial institutional capability to guide and monitor the transformation of such resources into strategic capability. The classical framework addresses the economic policy instruments in territory that ensure the sustainability of any innovational solution. This kind of local and regional approach is fostering the local and regional cooperation between SME’s, MNE’s and academics, in terms of designing unique framework of knowledge transfer.

2.3. Agro-food innovation space

All the above achievements and intentions will remain theoretically interesting if we cannot prove empirically; that is the most important problem of those solutions is the designing of information system as decision support for management for such a complex structure.

Being aware of the challenges of economic long run development in the region the results of SWOT analysis on agro food sector we briefly observe:

- a. **Cluster:** processor linkage with agriculture have deteriorated, lack of long run contracts with related industries, low level of development of relative industries, transport sector is inefficient and poor technical conditions of roads, few companies are investing in improving processes ,equipments and plants in rural area, EU standards partially applied and in conflict with territorial reality,
- b. **Factor conditions:** large variability on *labor force* structure and quality (good qualification, low wages, low productivity, seasonality of employment. *Assets:* old and depreciated, necessity of renovation. Great diversity on *raw materials*. *Infrastructure:* good telecommunications, high European market transportation costs, poor transport infrastructure, basic processing technology is simple and obsolete, seasonal productivity.

- c. **Demand:** significant local demand, lower quality and low price; limited domestic market for quality; large external market for quality, good knowledge of the final consumer needs and requirements
- d. **Strategy:** high quality product, partnership with high-end wholesalers, consumer influencing demand, invests in producers through contracts training, operational synergy, investment in equipment and staff training.

That's for our research cover the market investigation in order to define the state of the art in innovation framework; it is part of a European project which target was the creation of a network of organizations that supports the participation of agro-food SMEs in international collaboration in order to become active part in value creation through business innovation. There were projected the key mechanisms of competence, commitment and coordination at local and regional level of the territorial marketing initiative. The general objectives of the project were: Share risks and costs in innovation activities; gain technology and experience from complementary partners; develop innovation capacities; increase competitiveness; get access to international markets.

The specific achievements of this initiative consist of: Best Practice Guide to assist agro-food SMEs in choosing the most suitable partnership ; Structured pool of enterprises, and fostering synergies among them; proactive online intelligence service on FP6 & FP7 opportunities; WEBSITE with infos, IPs & NoEs database, newsletter, communication & network platform, IT transfer solutions, tailored to SMEs; designing a territorial space of Knowledge

This is empirically proved by the evaluation of innovational capacity of agro food SME's under FP6 framework. "SMEs Virtual Platform on Agro-Food Sector to access the Sixth and Seventh Framework Program". Some of the relevant conclusions for this research paper of SPAS Final Report we mention as following. The selected items, relevant for *territorial resources reallocation mechanism*, for the 73 Romanian agro food SME's respondents are: process innovation; non-technological innovation; financial obstacles and altering business relationship.

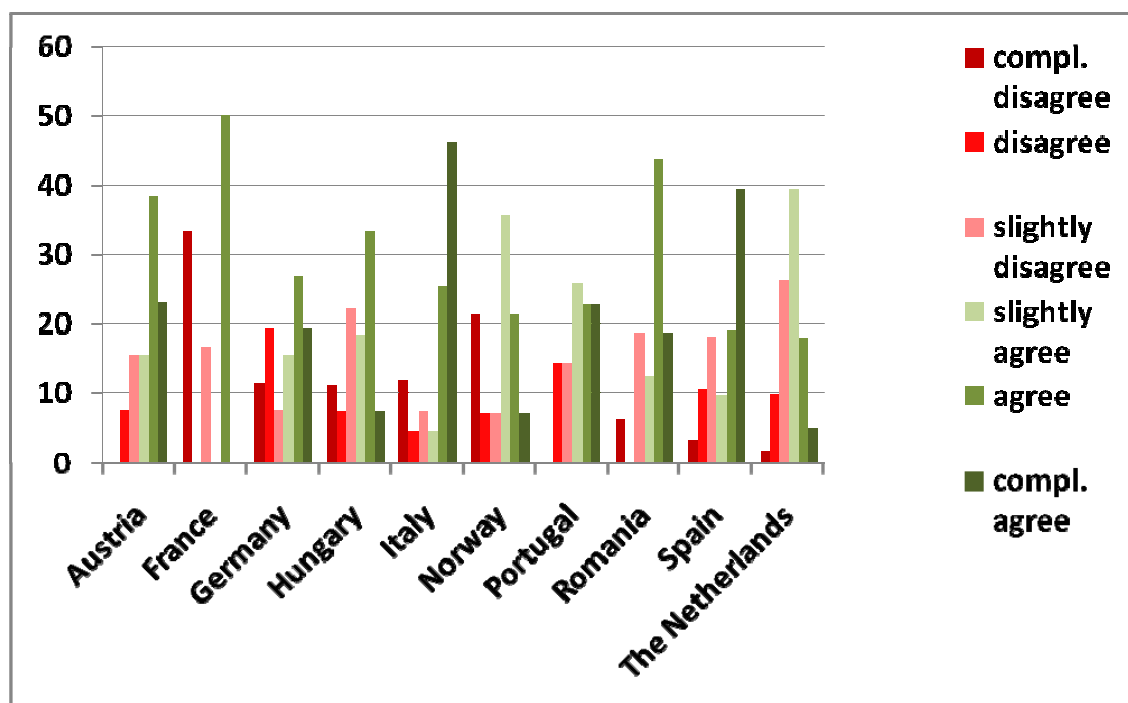


Figure 3: Percentages of Process Innovations (Source: SPAS)

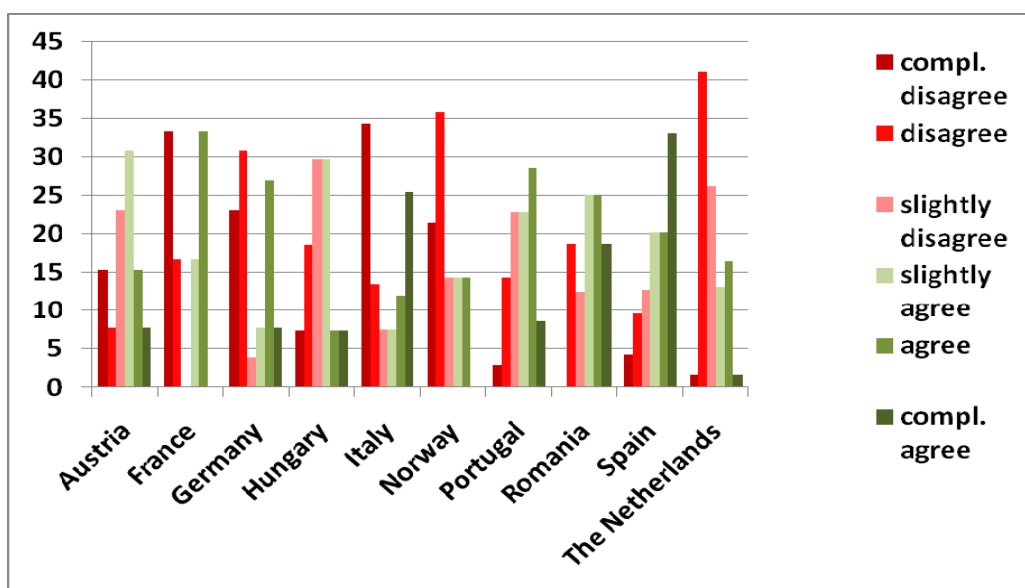


Figure 4: Percentages of Non-Technological Innovations (Source: SPAS)

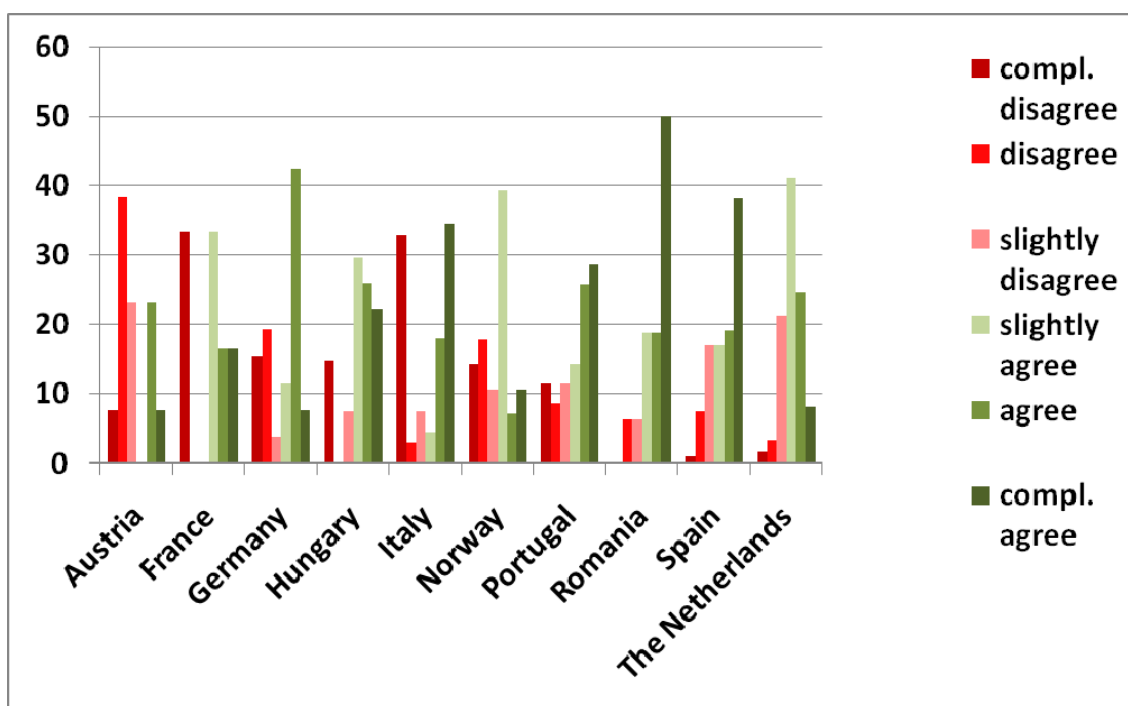


Figure 5: Percentages of Financial Obstacle for Innovation (Source: SPAS)

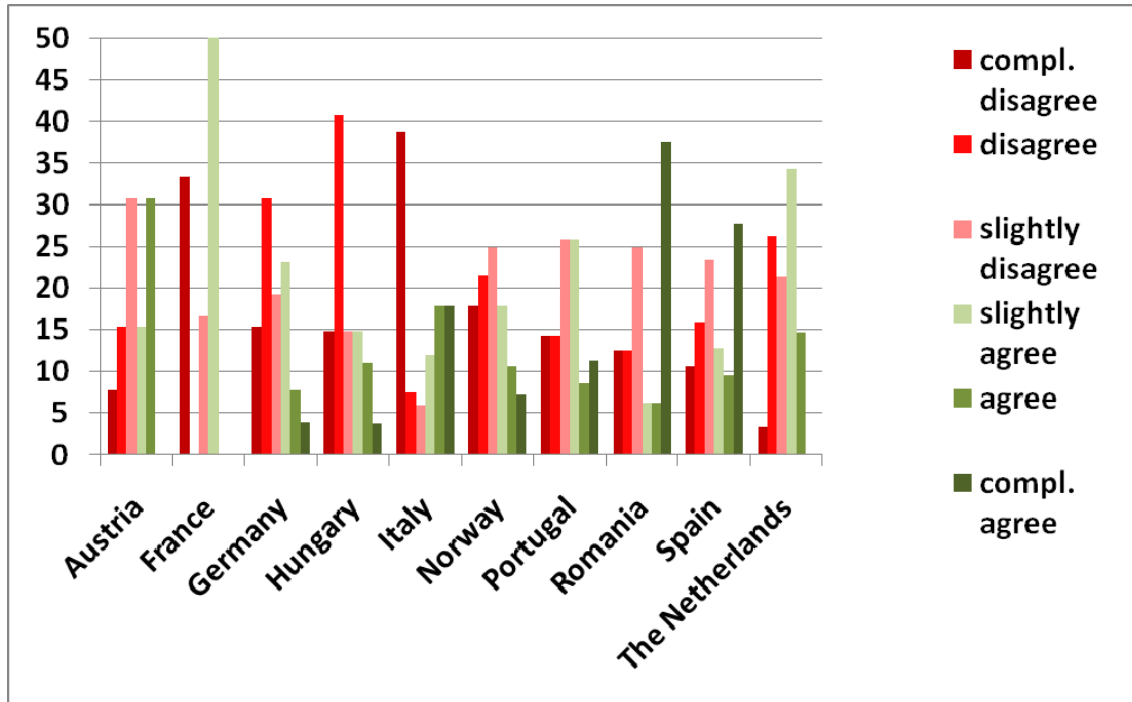


Figure 6: Percentages of Internal Obstacles (e.g. skilled personal, information) (Source: SPAS)

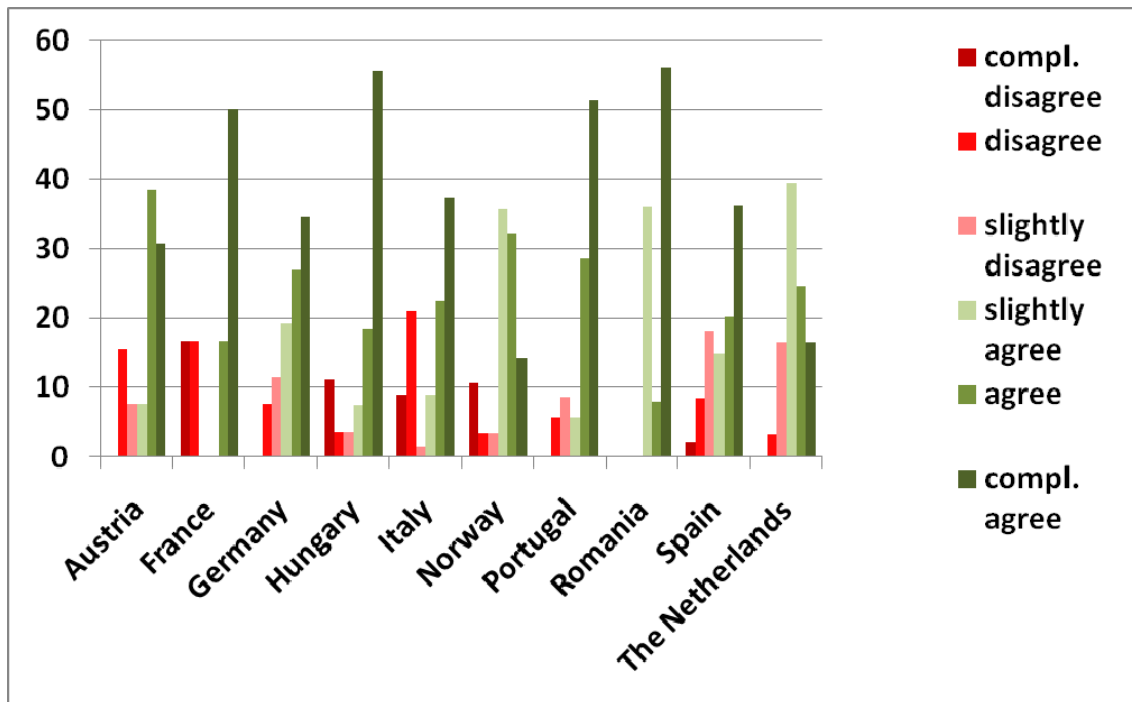


Figure 7: Percentages of Motivation for altering business relationships (Source: SPAS)

This type of territorial resource allocation is the key issue of financial European support and national government funds. Mostly if this kind of cooperation meets the European policy requirements of promoting cooperation and business innovation as part of an overall innovation system. After all we speak about territorial dominancy and local actors must be mobilized in collaborative learning process in order to ensure territorial synergies, as superior value added re-allocation.

As regards the mutual benefit from territorial co-creation of value we address the general conclusions of the same project EU FP6⁵⁴ which is the empirical we need in order to suggest the appropriate co-specialization of components capabilities, in order to construct the territorial specific portfolio.

One important step of the proposed model relies upon the ability to find the most appropriate framework of optimal resource allocation and our proposal is the following:

- ✚ Analysis of RTD innovation portfolio at regional level
- ✚ Identification of research needs for governance and management tools for rural and tourism co-specialization
- ✚ SWOT analysis for assessing regional RTD capacities and reallocation of funds
- ✚ Sharing and integration of research projects and resources
- ✚ Increasing research potential, mobility and knowledge transfer
- ✚ Increasing access and exploitation of research results

Consequently the main issue of the new value creation process, as it supposes knowledge transfer, is the coordination of complementary resources belonging to different partners of various organizational structures. The institutional mechanism must provide superior instruments for conflict resolution between the different components that are competing for resources.

3. Conclusion

The challenge we are facing is the ability of the designed strategic behavior to transform this kind of local alternative and fragile competitive advantage in a sustainable one. Current status of research indicates that we assist to location- specific factor supremacy as determinants in regional attractiveness and we suppose that sustainability could be reached only by territorial solution. Strategic alternative focusing on complex rural system creation is the disruptive behavior we need in territorial development, the only best solution for agriculture and land-use planning to benefit of environment. This paper contribution offers strong arguments for policy makers in order to enable this long term strategy.

We can also address another issue heavily disputed between academic-that is the return to local and regional offerings as opposite to global assumption. That's for we are assisting today to an innovation process relying upon: territorial marketing which is an umbrella for too many issues already exploited, such as: eco-clusters, local and regional offerings; traditional products and services exploiting, regional competitive advantage which is based upon intra regional competition between clusters for the decentralized governmental funds; B2B local and regional markets and many more.

Domains of research as economic governance, strategy, management and marketing must integrate their achievements and further investigate in order to identify one best territorial solution in terms of management capability to identify the best coordination mechanisms of value creation exploiting territorial capabilities and the final re-assignment of the results among territorial stakeholders.

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New Trends in Sports Management – Reengineering

Claudiu MEREUȚĂ

cmereuta@ugal.ro

Elena MEREUȚĂ

emereuta@ugal.ro

"Dunărea de Jos" University of Galați

Abstract: The paper presents a new approach regarding the management in sports that is based on the principles of reengineering. Applying that modern and pure management system, called reengineering, in sports activity, we hope to get better and better results, in order to increase both the health state and the performances of trained athletes. The paper also presents the similarities between BPR (Business Process Reengineering) and Sports Managements, as well as the proposed solution for a proper implementation of such model of management. The five components of the basic BPR model are presented, together with their features for Sports Management.

Keywords: Business Process Reengineering, Sports Management, training activities

Jel Code: D83

1. Introduction

The evolution of sports management reveals the necessity of a radical change in organizing that activity. The substantiations for that new approach are related to the unilateral training of those authorized to manage the sports activities, to the confusions produced by misunderstanding the general interest and the specific interest of one compartment or field and, not at least, the conservatism of most leaders of sports activities.

If we take into account the experience in the application of reengineering process, we see that the possibilities to use that new management process in sports management are promising.

Thus, improvements in productivity were the main objective of industry and, within it, those strictly related to production activities. Less attention was given to support and administration sectors. Therefore, their potentiality to be improved or redesigned is bigger.

On the other hand, the approach is focused on complex processes, involving a large number of individuals and departments (sectors) that should be properly coordinated. All these elements are characteristics of sports activities, which consist of multiple data and facts, considered to be inputs and outputs in different sectors and organizations that interact in a complex pattern of relationships. Therefore, it is not surprising that reengineering finds application within this framework of sports management.

2. Fundamentals

Business Process Reengineering (BPR) is a management process that implies fundamentally rethinking and redesigning the business processes necessary to maximize customer satisfaction and profits and to achieve dramatic and permanent improvements of all economical indexes. This radical approach seeks to interpret the standard business model in a new way, making more efficient use of available resources by seeing the function and purpose of those resources in new ways. This approach doesn't necessarily require the complete abandonment of all aspects of the standard business model. However, the approach requires redefining each component in the model and altering the function in a manner that would produce a business structure relevant and more performing.

Reengineering means, in fact, a complete redesign of processes, starting all over again from point zero, being self confident and accepting any risks that might occur. Business Process Reengineering refers to discrete initiatives, which claim new and radical redesign of processes in a limited time frame. This doesn't consist of improving inefficient processes and assumes their total transformation. The idea that supports Business Process Reengineering can be summarized by the question: If this process does not exist, how could we sketch it?

It would start, therefore, from a white sheet of paper on which you have nothing to change, just to add something, from the beginning. That wouldn't be an improvement, it would be an innovation. Fundamental difference between BPR and process improvement is that reengineering involves a total review process, whose results are translated into changes in organizational structures, systems, culture and competencies. The improvement process accepts, in a certain way, the current process, eliminating the activities with little or no value added. Table 1 presents both alternatives, pointing out the differences between them.

Table 1 Comparative analysis reengineering / continuous improvement

	Reengineering	Continuous improvement
Change level and profit	Radical changes with 80-85% profit rate	Changes with 10-40% efficiency rate
Extension	A complete process or sub processes developing over different functional fields	Usual processes or sub processes within the same functional sector
Time for implementation	Between 9 and 18 months	Less than a year and even smaller, related to the extension of intervention.
Leadership	Indispensable agreement with top management	Sustained support of top management
Approach	Total and complete redesign and reorganization of processes	Automation and elimination of some functions of the process
Risk level	High risk due to the fact that the process requires personal involvement and resources. The changes will be strong and they will generate strength.	Small and medium risks, depending on the spread of changes and the number of activities involved.
Important factor	Information technology	Statistical control and other tools used for quality improvement
Changing type	Cultural and structural changes	Cultural changes

To fulfill this task, the manager has to abandon all ancient rules and norms and has to start with searching answers for the following question "Why are we doing this?"

3. Reengineering and Sports Managements

Many scientists have studied that new approach regarding the Business Process Management, which sometimes lead to unsuccessful results. Five fundamental issues were revealed for a proper development of BPR, considered to be the basic model of reengineering as follows (fig.1):

- ✚ Marketing concept;
- ✚ Top management involvement;
- ✚ Fundamental questions;
- ✚ Radical changes;
- ✚ Eight common problems for reengineering.

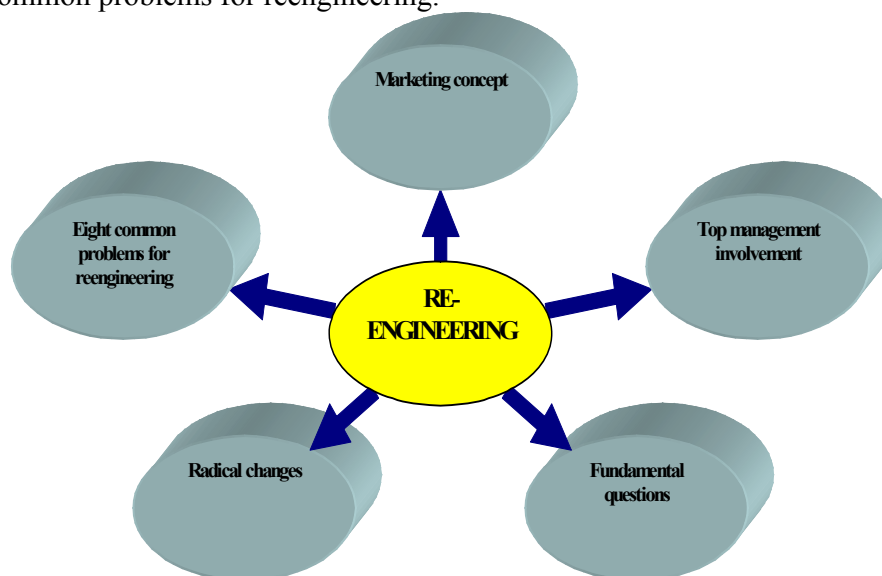


Fig. 1 –Reengineering - basic model

3.1. The marketing concept

Three important parts of the marketing concept are emphasized: effort for integration, consumer orientation and profits. As for the first part, effort for integration, we can point the fact that sports management must be aware of consumer's needs, thus all its activities must be redesign, in order to integrate the management process and to engage all people in the process (top management, trainers, athletes, administrative staff, supporters etc.). As for the second part, consumer orientation, we have to point out that all efforts must be turned to the benefit of consumers, which in sports activities are both the athletes and the supporters. The third part of the marketing concept, profits, we agree that for this general aim, in sports management and mainly in business process reengineering, "profits" means performance in all sports activities. The qualitative indexes are, as follows:

- ✚ The general rating of performance in international, national and regional classifications;
- ✚ The number of medals gained in most important competitions: Olympic Games, World Championships and European Tournaments etc.

3.2. Top management involvement

Reengineering is a management process that requires total involvement of top management, meaning that all details should be taken into account. Reengineering can be successful or not, depending on the level of engagement. Only when top management leads the reengineering process, positive achievements are certain. As for the Sports Management, it is necessary to

point out a continuous cooperation of all departments, to strategically establish objectives, to ensure a total engagement of all factors, including trainers and athletes.

3.3. Fundamental questions

Two important questions must be the focus of all activities demanded by the reengineering process:

- a) Why are we doing this?
- b) How are we doing this?

The answers might prove that the traditional way of thinking is overcome and the important changes must be reinvented. Sports management must also find the answers for these questions and for much more that will arise. Thus, it is important to point out some issues (fig.2), like:

- a) Why are we developing and supporting only some sports fields?
- b) Why many sports fields neglect the physical training and focus on the technicality?
- c) Are all sports fields accessible to everyone?
- d) What are we doing to promote other sports fields?
- e) Are sports activities depending on mass-media?
- f) How can we attract younger people to sports activities?
- g) Why the curriculum has changed in such a way that in school only 1 hour/week is for physical activities?

3.4. Radical changes

This is a concept that is characteristic to Business Process Reengineering, but it doesn't refer to formal changes of the existing facts. Business Process Reengineering requires radical changes, revolutionary ones, not evolutionary changes. In sports management we have to perform radical changes, meaning that we have to rethink and reorganize all activities, in order to develop a flexible system that can adjust to all changes required by social development, by the most revolutionary training systems, by human development etc.

3.5. Eight common problems for reengineering

There are some special issues in Business Process Reengineering, which can be also revealed in sports management (fig.3):

- a) Combined specializations

In sports management all trainers have to be prepared not only in their sports field, but also in some related fields, such as: physical development, psychology, pedagogy, nutrition, health and management.

As result, the athletes will be aware of all the consequences of their activity and they will be able to perform better and better.

- b) Everyone is a decision factor

The decisions are no longer the privilege of top management, because everyone can make a statement regarding his activity and can make decisions of his own.

Thus, the team should work as one, involving in its activity all factors related to the program, all their opinions and all the tasks that need to be fulfilled.

- c) Less control activities

Business Process Reengineering reduces the control activities, if the management programs are well organized and scientifically based. Thus, some forms of control can disappear: the simultaneous control, the direct control and the compliance one. It would remain the anterior control, which would estimate the input parameters of sports activity, mostly on training, the subsequent control, which will provide assessments on the progress of athletes, and the

collateral control, which is now transformed into a periodical appreciation of all the aspects regarding the training activity.

The self-control must not be neglected; it really should prevail in sports activities, as one of the most important control types

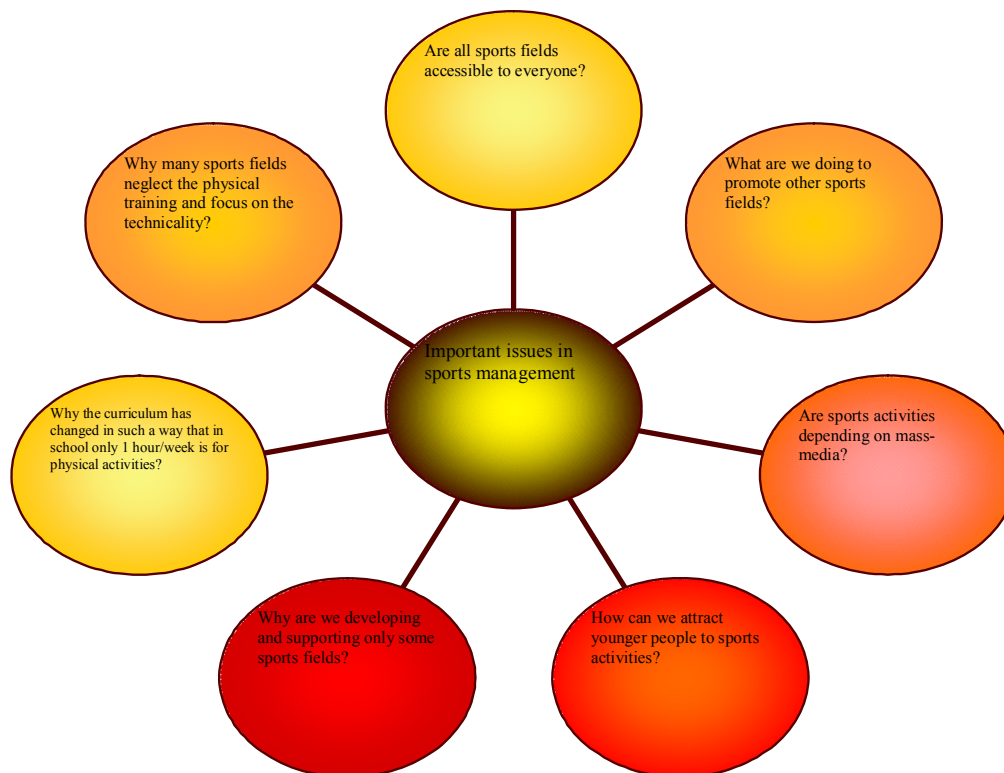


Fig.2 - Fundamental questions

d) The domination of centralized/non centralized hybrid activities

Top management, the leader support and the decision of all members of the team are some factors that determine the centralization of all decisions.

All the trainers, athletes are responsible for their decisions and activities, proving that the Business Process Reengineering has hybrid non centralized operations.

e) Multiple versions of the process

The decision process and the management process don't have an unique form, for each sports field there are particular decisions and processes and the trainers and athletes have to act accordingly. The same organization can be proficient in many sports field, which are not connected and which require different approaches.

e) Business Process Reengineering is useful when it proves to be rational

If we consider a small sportive organization, reengineering is not a proper solution for management, as it might be not so opportune.

When we are dealing with bigger organizations, it is necessary to rethink the sports management, in order to render it more and more useful and rational.

f) The project manager is the essence of connections

The coordinator must ensure a free way of thinking, to move the management into the desired direction, to ensure a proper link between the members of the team, the trainers, the athletes and other administrative staff involved in sports processes.

He is the central point of all connections, thus he has to prove leadership abilities, communications and teamwork skills.

g) Natural connections of the phases of process

All the sports field of an organization must be equally developed, taking into account a natural sequence of these fields. We can not develop a team sport activity, if we don't have a proper physical development, which requires running fields, weight lifting etc.

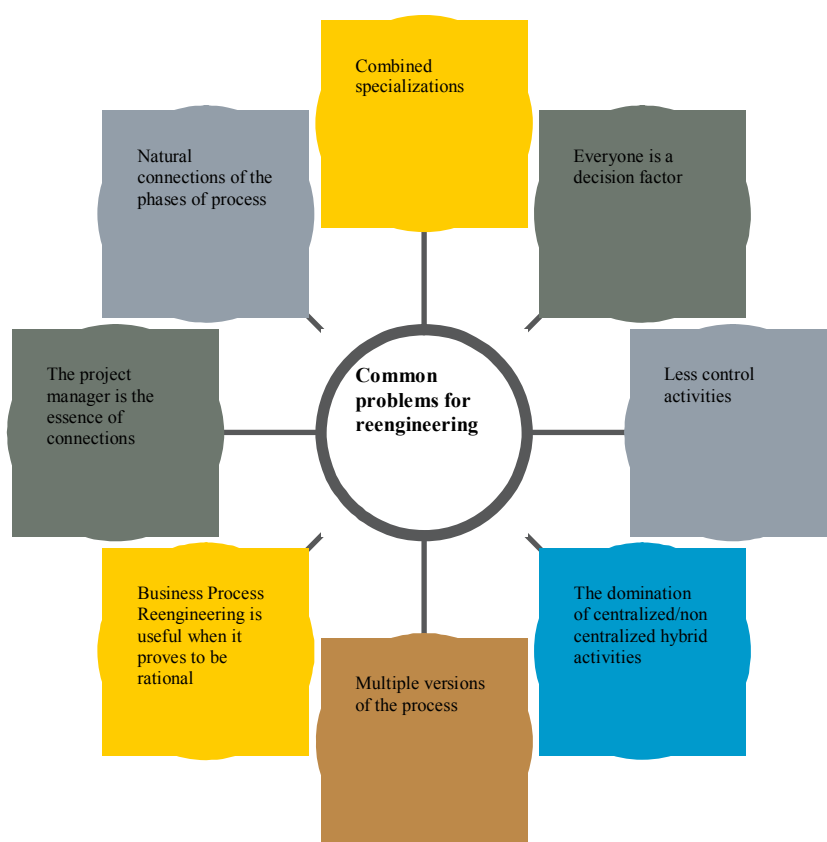


Fig.3 – Common problems for business process reengineering

4. Conclusions

The evolution of sports management reveals the necessity of a radical change in organizing that activity Business Process Reengineering is a general management process, which can be successfully used in sports management. We can use all the reengineering concepts to develop a new way of managing the sports activity.

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Transnational Corporations - Key Enablers Globalization

Gabriel CROITORU

croitoru_gabriel2005@yahoo.com

Vasile CUMPĂNAȘU

Universitatea Valahia din Targoviste

Irina Olimpia SUSANU

irisusanu@yahoo.com

Universitatea Dunarea de Jos Galati

Abstract

Romania, Romanian economic agents have become in recent years present ever more active in world trade. Association agreements agreed with the European Union and beyond, opening Romania and Romanian participants in international trade relations, prospects of major deep involvement in the world flow of values and knowledge. But it also means aligning our trade laws to European legislation profile, with priority to Community law and assimilation regulatory provisions of international conventions ratified across Romania as part of national law rules. Transnational corporations, which operate in more than one country or nation at a time, have become some of the most powerful economic and political entities in the world today. The United Nations has justly described these corporations as “the productive core of the globalizing world economy.

Keywords: globalization, transnational corporations, global village, e-commerce

JEL code: L4, L40, L2, L20

1. Introduction

The initial aim is to indicate that globalisation is a process that has a number of dimensions. It can be approached from various degrees of abstraction. I have identified at least four dimensions to globalisation as a set of social processes. There may well be more than four – but that misses the point. The key point is to uncover what is at globalisation’s core, for only in this way can the full extent of the threat to the public services in contemporary social life be appreciated. This core is the value-form of labour.

The paper explores the proposition that ‘globalisation’ is essentially capitalist globalisation: the globalisation of capital, which is at the core of all the economic, social, political and cultural trends that have been associated with conventional (and more superficial) notions of ‘globalisation’.

The convergence of microelectronics, communication and computing technologies has given rise to new information systems, which have the ability to manipulate information rapidly in a number of ways and deliver such information with incredible speed at very low cost. This manipulative attribute of the new systems has itself given rise to new categories of services while enhancing old ones. The Internet in particular, which is at the centre of the information

technology mediated world is critical to the globalization process, that is integrating the world into what is termed as the Global Electronic Village (GEV).

2. The pathways of globalization

As Peter McLaren (2001) and others have indicated, for postmodernists and those interested primarily in cultural phenomena, globalisation has been associated simultaneously with the cross-fertilisation and increasing hybridity of cultural forms and identities on the one hand and the homogenisation of culture on the other. The latter trend is manifested in the standardisation of culture, summed up by the concept of McDonaldisation – the product is the same wherever you are. On this basis, globalisation as the embrace of consumer products such as Nike, the GAP, Nokia, Sony and McDonalds incorporates cultural conformism. Globalisation in this sense points towards global markets, consumer identities and choice.

Of course, billions throughout the world cannot afford many of the products associated with upbeat lifestyles and cool dude poses. Drawing on the work of Teresa Ebert, Peter McLaren argues that globalisation as a set of cultural process emphasises ‘global symbolic exchanges relating to values, preferences, and tastes rather than material inequality and class relations’.

Contemporary globalization processes are continuously redefining the ways we live and communicate. In making this statement, I employ a liberal interpretation of the term globalization “as fostering international economic integration and as a mechanism for promoting global liberal capitalism” (Thussu 2006).

This interpretation identifies an international division of labor, a heightened role of markets and transnational corporations as imperatives of the globalization processes, often at the cost of nation-states and indigenous communities (Thussu 2006).

It is generally agreed that giant leaps in information communications technology (ICT) are propelling global dynamism by accelerating greater intra-regional connectivity (Thussu and Sarikakis 2006; Mujahid 2002; Bettig 1996). The consequent trends are the “expansion of an information economy and the convergence of technologies” (Bettig 1996). Additionally, technology as the “new means of production in the virtual age of speed and freedom is associated with borderlessness of capitalist globalized markets” (Thussu and Sarikakis 2006). ICT is hence construed as a “key enabler of globalization” (Mujahid 2002).

The ICT is undergoing a massive revolution in terms of its capabilities, reach and affordability. The technological convergence between computing and telecommunications sciences is its most pronounced manifestation. Some milestones of this synergy are the transition from analog to digital; the creation of the hypertext language and World Wide Web; the capability to digitally convert text and audio files; and the incessant innovations in internet, making it a “network of all networks” (Thussu and Sarikakis 2006).

The upgrade in internet connectivity through digital subscriber lines (DSL), cable modems and wireless options, coupled with wider conventional and cellular telephone services, which extensively use digital GSM and TDMA technologies, has made ICT more accessible and affordable. The growth in fiber-optic telephone exchange and the privatized local-loop systems has further broadened and subsidized telephone density around the world (Thussu and Sarikakis 2006; PSEB 2005; Albarran 2004; Mujahid 2002).

The consequent economies of scale have lowered costs of high-speed international private leased circuits, bandwidth, and satellite-based telecommunication networks. At the same time,

wider and subsidized access to DHCP-enabled router technology and voice over internet protocol (VOIP) is accelerating the volumes of high-speed transfer of voice and data across the globe (Slay 2005; Mujahid 2002).

Technological leaps like these have made it possible to “transmit information at unprecedented speed and volume across the globe”, thereby accelerating the pace of global interconnectedness (Thussu and Sarikakis 2006). The ensuing intersections between information superhighways, digital networks, and transnational communications are aptly described as the rise of an international informational economy (Thussu and Sarikakis 2006).

The globalized informational economic networks have given impetus to innovations in business practices. “In today's highly competitive global marketplace”, (Ueltschy et al 2006) contemporary international business practices emphasize on relentless economic search for the lowest costs, ‘a race to the bottom’ (The Economist 7/26/2007), maximum profits and highest returns on investments. It is universally accepted that cost savings are still the “principal motivation to outsource” (Economist 7/26/2007; Johnson 2007; Duening 2007; Newsweek 5/11/2003).

These objectives are being met through outsourcing and off shoring jobs and production processes by contracting-out work to outside firms and geographical shift of work abroad (Ueltschy et al 2006; Thomas and Wilkinson 2006; Johnson 2007). The terms Business Processing Office (BPO) and also Business Service Providers (BSP) are synonymously used with the voice-based call-center sector, to describe the transferring of business processes to external service providers (Duening 2007; PSEB 2005). These include tele-marketing, customer services, technical support, and assorted back-office jobs, etc. (Duening 2007; PSEB 2005; Newsweek 5/11/2003).

Additionally, it is helpful to identify the geographical locations of such ICT-enabled outsourced jobs. I refer to Kearney’s Global Service Location Index, (GSLI) which evaluates annual outsourcing trends, and classifies 50 countries on the basis of three parameters: (a) financial attractiveness, (b) availability of skilled workers, (c) business environment. According to the 2007 GSLI, India, China, and Malaysia rank as the top three outsourcing choices for US companies for their back-office operations.

The GSLI reports that due to “lower wage, infrastructure and regulatory costs”, India has an edge over China, and the rest of the countries (Economist 8/30/2007).

Innovations in contemporary global business practices represent capitalist behavior of U.S. transnational corporations, which function on the doctrine of “primacy of profits” (McChesney 2004). Ingrained in the capitalist ideology, these transnational corporations are in a continuous competition for lowest costs, cheapest inputs, maximum return on investments, and a relentless extension and consolidation of national and international market share. The growing trends to outsource dead-end jobs to offshore locations vividly illustrate this capitalist strategy in action.

Western economies follow neoliberalism with the belief that “market can do no wrong” (McChesney 2004). This belief requires a critical appraisal. Neoliberal capitalism considers that rationality, as a cardinal feature of capitalist markets, empowers it to make rational decisions for common good. I dispute this assertion.

It is problematic to accept this presupposed notion of market rationality when winners and losers are arbitrarily determined. In context of the digitally-driven call center sector, the US transnational companies are undisputed winners in terms of profit levels, market reach,

corporate convenience, and heightened strategic focus on core functions. The distant workforce that makes all this possible does not share benefits in the same magnitude.

The most pronounced implication of this scenario is that the ICT revolution has “reinvigorated the spirit of capitalism” (Calbrese 2003), through its stronghold on the industries of computing, telephony and allied information technologies.

The present-day globalization processes are serving to foster “international economic integration and as a mechanism for promoting global liberal capitalism” (Thussu 2006). The emergent remote office outsourcing trends amplify that the “logic of capital has resulted in the concentration of ownership and control of communication systems in the hands of the richest members of the capitalist class” (Bettig 1996).

I am of the view that the above-stated perspectives signify the implicit resurgence of an imperialistic mode in the neoliberal capitalist powers that govern the contemporary global economic system. Such imperialistic tendencies are verified by the hegemony of the English language and English speaking societies in the global business networks. I quote Thussu and Sarikakis who observe that “the language of British imperialism is now the lingua franca of U.S. hegemony, which dominates global international traffic” (2006).

English is the language of information technology, including the World Wide Web, software design, internet communication, and all other forms of communication patterns. This supremacy distinctly divides the world into English and non-English speaking linguistic blocs. This split is reflected in the contemporary outsourcing trends. To support this viewpoint, I explore the job eligibility criteria for call center workforce.

The local third-party firms, which operate remote offices for U.S. business corporations recruit representatives on three criteria: (a) good English speaking ability and listening comprehension, (b) basic skills in computers and internet such as e-mail, chat-programs, and web browsing, and (c) polite and confident telephony skills. (Slay 2005; Dunn 2005; PSEB 2005; Newsweek 5/11/2003) I argue that these prerequisites for acquiring jobs as a lowly-paid back-office worker in an off-shore call center are a manifestation of an imperialistic design.

In order to establish this argument, I unpack this apparently simple wish-list. Firstly, acquiring computer skills requires at least working knowledge of English. Secondly, acquiring polite telephone skills to function as a sales representative, customer support worker, or a telemarketer demands that such a worker is reasonably conversant in the English language. Thirdly, a telemarketer can be confident only with good English speaking and understanding skills, since being off-shore in another country and hooked on to a voice-based communication system, makes him or her a worker in absentia. Being a call center worker implies that he or she is denied other forms of communication options such as facial expressions, body language or genial social mannerism. Thus it is imperative for a call center worker to possess superior English language ability, in order to acquire and retain a job in such a voice-based remote office.

Further, it is “useful to examine the residual effects of colonialism” (Dunn 2005). English language is undoubtedly the principal colonial legacy. This fact is affirmed from the vast stock of ‘how to set-up a call center’ manuals that are prepared by both the privately-run local third-party firms and the public sector which is eager to attract foreign investments into the country. I refer to two such public sources from Anglophone countries.

Despite the immense savings in costs to U.S. transnational corporations, they face some indigenous challenges to their outsourcing initiative. The first one is economic in nature: there is widespread public resentment to the loss of U.S. jobs to overseas workers, since it is shrinking the local labor market and, is simultaneously making it more competitive. This dislike is confirmed in a Newsweek analysis which reports the "threat that cheap labor in India and in other low-wage countries posed a threat to costlier workers in the developed world was a central theme of America's 2004 presidential campaign" (Economist 7/26/2007).

However, the rationality of markets and the 'logic of capital' have resolved this cultural resistance through renewed innovations in their business systems. Firstly, the U.S. companies have augmented training standards in terms of lingual proficiency of the teleworkers, and vigilantly follow stringent quality control parameters. Secondly, the U.S. outsourced jobs are assigned only to those local operating firms which recruit teleworkers with adequate training in accent-free English skills and orientation of the U.S. society and way of life. (Economist 7/26/2007; Slay 2005; Newsweek 5/11/2003)

Such business practices indicate that global neoliberalism is increasingly functioning "as an instrument of imperialist domination" (Tabb 2007). The doctrine of rationality and logic of market which the U.S. corporations follow in their dealings with regional business associates can alternatively be interpreted as a reinvention of imperialism. This system requires that confidentiality of geographic locations be maintained and stringent U.S. and English intensive training be imparted to the distant workers.

Whether seen as an historical process or an ideological construct, globalization brings about greater interaction between countries, and between peoples. John Tomlinson (1996) defines it as "a rapidly developing process of complex interconnections between societies, cultures, institutions and individuals world-wide. It is a social process which involves a compression of time and space, shrinking distances through a dramatic reduction in the time taken - either physically or representation ally - to cross them, so making the world seem smaller and in a certain sense bringing human beings 'closer' to one another". Thomas Friedman (1996) sees it as "the loose combination of free-trade agreements, the Internet and the integration of financial markets that is erasing borders and uniting the world into a single lucrative, but brutally competitive marketplace".

Globalization reduces the world into an integrated system of markets. Under the process, international trade is considered to be the major engine of economic growth, and should therefore be facilitated. This facilitation is to be done through trade liberalization, necessitating the removal of tariff and non-tariff trade barriers. In addition, states are to withdraw from social provisioning by privatizing state social service organizations. The role of states is being reducing to that of creating a conducive environment for private sector-led development.

Ever since Marshal McLuhan used the phrase global village in the 1960s to refer to this contracting world, the concept of global electronic village (GEV) has gained increasing currency and an apparent objective reality. The world has become fully connected and brought together at the instance of a click of the mouse. Beyond this virtual reality, however, lies a social reconstruction of the world through a globalization process, which is seen as the integration of the world into a single market. At the heart of this process is the Information Technology, or more broadly, information and communication technologies (ICTs) that ever-pervasive technology that is changing the ways in which we do things. Information Technology has unleashed a torrent of technological changes that have profound implication in the way in which society is organized.

It argues that globalization is not only enabled by ICTs but that the level of connectivity of a country determines to a large degree the possibility of its benefiting from the globalization process. The paper then offers an articulation of the substance and nature of this new imperialism that is resulting from both globalization and an unequal access to ICTs in a world that is increasingly becoming knowledge mediated. This new imperialism that is signposted by global governance based on the World Trade Organization (WTO) with new development challenge, which it has to confront.

The paper argues that for developing countries to break the hold of this imperialism, it has to find ways of deploying ICTs, among other things, for development purposes. This leads us to assessing the current efforts and strategies aimed at addressing the digital divide in developing countries and developed countries. One basic fact about this is that inspite of the multiplicity of bridging strategies and efforts; the digital divide is expanding rather than closing. Within this context therefore, the paper seeks to offer an explanation on why these efforts are not successful.

The framework takes as its point of departure that integration of developing countries to the global economy is a reality. However, the nature and mode of this integration need to be contested. It also proceeds from the observation that the digital divide, defined as unequal access to ICTs within and between nations, is part of the wider development divide that has been characteristic of imperialist domination of the third world.

In concrete terms, globalization presents itself as the breaking down of national barriers in terms of trade, flow of information and capital, and in terms of ownership of key industries. Multinational corporations are increasingly displacing local ownership in key and dynamic sectors of national economies. It is also changing the nature of national policy making in that globalization demands conformity with policy prescriptions, which national policy making instruments and processes have no role in articulating. This last has serious implication to the essence of national democracy. Democracy is about the capacity of citizens to participate in the process of decision-making and to influence their governments in the process. In the context of globalization, the space for this has been constrained as policy flows top-down from the international trade regulating organization to national governments. This means that globalization disembowels citizens, and therefore, substantively undermines democracy globally.

The debate about the nature and impact of globalization is ongoing. However, certain consensus is building. For instance, it is now understood to encompass not "just about deepening of financial markets, but includes a whole range of social, political, economic and cultural phenomena" that is simultaneously driven and facilitated by developments in ICTs (Cogburn and Adeya, 1999:2). O'Neill (1999: 1) talks of them as being "seminal to the globalization process". It is also agreed that in this process, the World Trade Organization (WTO), an organization ostensibly established to regulate world trade, has come to assume the role of global governance, whose modus operandi are, as Dot Keet (1999: 9) remarks "the product of self-serving and highly tendentious political processes; and based on upon and reflecting a particular economic model or paradigm favouring the strong".

What is the role of ICTs in this process? At one level, ICTs provide the pathways with which the world is brought together, conquering both time and space. The critical role of ICTs here is that they allow the flow of information and market intelligence at incredible speed and at very low cost. This means that MNCs have better access to the most comprehensive market intelligence, they can better coordinate their activities and management. ICTs also link up the new manufacturing outposts of the transnational corporations. The technology of e-commerce

has also means an easy and speedy movement of capital. Multinationals can therefore move their capital to where conditions are most profitable. Moreover, goods and services, including stocks, are traded electronically, thus firms do not have to be involved in the actual movement of funds. Electronic transactions are invisible and therefore difficult to tax, thus allowing for bigger profit margins for the transnational corporations.

One of the pillars of globalization is international trade in services such as education, financial, health and telecommunication services. In the past, a country or firm offering these services in another country had to either be physically located in the country that it wants offer the services or set up a local representative, usually, a subsidiary, whose operations were subject to national policies. Now with ICTs, these services are being offered in a wider scope online. Electronic banking, online educational services, telemedicine, data processing, etc are the deliverables through which the WTO's General Agreement on Trade in Services (GATS) is being operationalized. Increasingly, these do not only constitute a significant volume of international trade, but also major sources of exports by leading industrial countries such as USA, Japan and Germany. The ability of any country to participate in GATs is largely dependent on its level of ICT connectivity. A country that has poor ICT infrastructure cannot offer services such as online education, telemedicine and international bandwidth services, even within its national borders.

One other consensus about globalization is that its benefits are not evenly distributed across nations and people. Even within a country, there are losers and gainers. The ability of a country to benefit in the globalization process is dependent among other things, on its access to technology, international bargaining power and the relative strength of its economy. Access to ICTs in particular has been generally recognized as a major enabler for a country and people to benefit from globalization. Countries that are better connected have better chance of benefiting positively than those that are poorly connected.

The effect of this is to remove access to ICTs from the domain of social provisioning and transfer it to the market arena. By making the market to be the dominant driver of the sector, the choice is very clear: investors would only invest to the extent that they would be assured of profits. This means that national disparities and unequal access to ICTs would not be eliminated. Rather, they could be accentuated by the inability of the poor to afford the cost of access in the absence of government subsidy. The WTO would therefore contract rather than expand access to information systems in its member countries. Global trend in ICTs has shown that the information gap is expanding with those countries that have more developed ICT sector better leveraged to develop faster.

3. Conclusion

To prepare the ground for such an exploration, I have tried to widen the perspectives associated with globalization processes and their synergy with developments in information and communications technology. This dimension clarifies the structural forces that dominate the confluence between ICT-enabled globalization and innovations in global business practices. I reiterate that the ICT revolution has "reinvigorated the spirit of capitalism" (Calabrese 2003), through its stronghold on the industries of computing, telephony and allied information technologies.

a. ICTs for Development: much of the discussion about bridging the digital divide treats access to ICTs as end on its own. For the developed countries that are looking for markets to sell ICTs goods and services, this is understandable. For developing contries, access should only be a means to address development problems. This means that ICTs should be used for

development purposes such as providing access to education, healthcare services, etc. In this context, it is important to realize that it does not make sense to have hospitals connected to the Internet when there are no drugs in the hospitals or schools that have no chairs to be connected to the Internet. We need to deploy ICTs creatively and appropriately to address our development needs.

b. One of the myths of the Internet is that it is not owned by anybody. The truth is that there are those who owned the means with which to access the Internet as well those who own the content. The question of content is already a hot issue under the rubrics of Intellectual Right Protection. Current reforms on this being advocated by the industry giants would make it impossible to even read things on the Internet without paying for the content. The strategies of bridging the divide focus on having people to have access to the channels without a stake in the ownership of the channels. Liberalization and privatization are only handing over the sector to companies of the former colonial countries. The channels are not only means of communication but also a mechanism for control.

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The Necessity for the Modernization of the Technical-Material Base of Agricultural Exploitations within the Process of Forming Competition-Economy

Viorica IOAN

ioan_viorica@yahoo.co.uk

Monica SUSANU

susanu_mnc@yahoo.com

Săftica ENACHI

sofienachi@yahoo.com

Florina Oana VÎRLANUȚĂ

florinaoana27@yahoo.com

„Dunărea de Jos” University of Galați

Abstract

The necessity for the modernization of the production processes in agriculture resides in the fact that this is the most important means to raise agricultural productivity, especially in the long term, to reduce production costs and to raise economic profitability, with a direct positive impact on the raising of income for the ones who undergo their activity in the agricultural sector. The case study conducted in Galati county covers the 2006-2007 period regarding the situation of the tractor and agricultural engine fleet as well as the evolution of chemically applied fertilizer consumption.

Key Words: agriculture, agricultural engines, technical equipment, consumption, intake

JEL Code: N54, O13, P32

1. Introduction

The acceleration of intensive development and the modernization of agricultural exploitation is indissolubly linked to the expansion, perfecting and rational utilization of the technical-material resources used in the process of obtaining and capitalization of agricultural products. The good performance practice of agricultural exploitations in countries with a developed agriculture demonstrates that within the context of competition-economy, obtaining high efficiency, raising of work productivity, climbing to a superior level of economic efficiency and production expenses and finally achieving a durable and competitive productivity, depend in a staggering amount on the dimensions, structure, quality and the managing with maximum efficiency of technical-material resources.

The technical-material resources represent, in fact, an important part of the exploitation capital of an agricultural unit, materialized in fixed capital (this includes, aside from buildings, engines, rigs, installations, equipment, breeding and work animals, the land itself) and working capital known also as intermediary intake. Quantitatively as well as qualitatively, exploitation capital has a direct impact on agricultural competition. The role of technical-material resources in the development of commercial agricultural exploits is determinant, since only the simple agglomeration of terrains through buying, leasing or associating is insufficient without the acquisition of agricultural rigs, quality seeds, fertilizers etc. because this does nothing except perpetuate agricultural inefficiency as well as the crisis of capitalization.

Within the frame of technical resources, the most weight, from a value standpoint as well as from the point of view of the amount of infusion in the production process, is carried by means of mechanization, which may be classified as follows:

- a. engines common to all cultures or animal species (energy base, soil working engines, means of transport, water installations, fodder installations);
- b. engines common to a certain group of cultures or animal species (broadcast seeders, universal combines for crop harvesting, water engines for animals);
- c. engines specific to a particular culture or category of animals (engines for the mechanization of vineyard labor, potato harvesting combines, milking installations).

These are tangible fixed assets which carry a set of specific characteristics when compared to fixed assets used in other economic areas:

- they are vulnerable to a greater degree to the complex influence of natural factors, a fact which leads to faster wear or attrition and determines greater amortization expenditures;
- their use has a seasonal character, due to the disparity between work time and production time, which brings as a consequence the necessity of greater investments since the equipping must be done in accordance with the demands of the peak period and the amortization expenses are greater;
- during use, the rigs are always in motion, a fact which leads to physical wear.

The generalization of engines and tractors in agriculture was at the base of all of the changes recorded in the past 30 years in the rural area. The large scale use of tractors and agricultural engines has a series of social and economic advantages, as follows:

Social advantages:

- agricultural engines allow for the work in the field to be significantly easier and at the same time quicker;
- the mechanization of the exploitation of an agricultural ground contributes to the decrease of work time and allows for an expanding of the cultivated area.

Economic advantages:

- agricultural engines allow for the raise of ground fertility and improve the effectiveness per area unit;
- agricultural engines allow for the undergoing of quality works at the optimum moment and reduces the number of draft animals used, the work productivity is raised as well, since the time necessary for executing a particular job decreases when switching from draft animals to tractors.

If the introduction of mechanization is not accompanied by the modification of agrarian structures and social means, it may become dangerous and may even limit the use of tractors and agricultural engines for the following reasons:

- the raising of work productivity comes with the raising of value, but also with the fact that a significant amount of workforce is freed, which must then be used elsewhere;
- the decrease in the number of agriculturalists allows for increasing the dimension of the areas to be exploited, which is necessary for the rational use of tractors and other engines;
- the managing of the exploitation becomes more complex and the agriculturalist becomes more and more a true manager;
- the working and living conditions in the rural area are changing, the work is less tedious and hard from a physical standpoint, the agriculturalist has more free time.

Intermediary consumption includes: raw material such as certified seeds and planting material (in the vegetal sector), seminal material, one day chicks, livestock, as well as fertilizers, pesticides (insecticides, fungicides, herbicides, etc.), combined fodder, energy, fuels etc. All of

these intakes are specific to a single production cycle, the final consumption level being 100% within the respective production process.

The modern agricultural production is inconceivable without the use of a wide array of chemical substances, as much in the area of plant cultivation (chemical fertilizer, herbicides, fungicides, insecticides etc.) as well as livestock growth (medicine, bio-stimulators and others). Of all the chemical substances used in agriculture, fertilizers are the most important, since they can determine the growth in production on a cultivated hectare even several times over, becoming thus a particularly efficient production factor. As opposed to chemical fertilizers, the role of which is to boost the fertility of the soil with a purpose to increase the harvestable crop per hectare, pesticides have the role of eliminating or reducing the loss of crop caused by different weeds, insects or fungi. In the pesticide category, we find the following chemical substances:

- herbicides, used for combating weeds;
- fungicides, used for the destroying of fungi which harm crops;
- insecticides, used for combating harmful insects;
- other chemical substances, such as those used for combating rodents;

Seeds and planting material contribute directly to obtaining high production per hectare, influencing at the same time, with serious force, the development of costs. Creating new breeds of plants and animals which are increasingly productive, more resistant to the harmful effects of pests and diseases and better adapted to the concrete demands of agricultural production, constitutes a permanent concern of western-European countries. This implies considerable costs for replacing the old breeds but the effects are visible through the qualitative and quantitative increase in agricultural production. Before 1989, Romanian agriculture had at its disposal a satisfactory technical base, regarding the running of field work. However, there was no adequate structure for the running of animal husbandry and there was no focus on the technical parameters of tractors and combines. Internal tractor and agricultural engine production would allow for the permanent replacement of said machines as well as an important export, but it did not assure a diversified array of products.

2. The modernization of the agricultural technical-material base

Following the application of the provisions of Law no. 18/1991 as well as privatization laws, in the context of the degradation and physical destruction of tractors and rigs, of the increased degree of wear, the number of available tractors and agricultural engines became insufficient, even if their number sees a slight increase. Thus, in 2007, Romanian agriculture would have at its disposal, according to statistical data, for example, 171,811 tractors as opposed to 129,239 in 1989, the largest part of them being in the private sector, 168,947, comprising 98.3%. The combine fleet however, was decreasing from 38,453 in 1989 to 25,552 in 2007, the majority being under private property 25,250, meaning 98.8%.

This level of endowment is far from able to assure the running of the works in optimal periods. Starting from a study done by the Ministry of Agriculture which established that the normal load for Romania is 25-35 he/tractor and 125-200 he/combine, we realize that the current level of coverage is only at 45% for tractors and 48% for combines. The mechanization potential is still low, especially in the horticultural and animal husbandry sectors. It is well known that in Romania, the passing of the optimal time for running the farming works, both in spring and autumn crops, leads to great losses. To the deficiency generated first of all by the insufficient number of rigs, we must add the accentuated physical and moral wear of said tools. Thus, on the whole of agriculture, over 50% of the existing tractors have a use age of over 8 years. From the point of view of technical endowment, Romanian agriculture is placed at bottom in the hierarchy of European countries. Thus, in 2007 the arable surface assigned to one tractor was 54 he and to a combine 369 he, as opposed to the European average of 26 he/tractor and 285 he/combine. Small and very small exploits cannot be undergone by agriculturalists since there

is no way to buy the engines and rigs necessary, thus it is imperative that they be stimulated to organize in associative forms, the diversification of the engines and the amassing of terrains in crop rotations on which the works could be undergone under economic efficiency conditions and at prices accessible for producers, of other service-providing economic actors.

We find a similar situation in the case of intermediate consumption of agricultural exploitations. The reduction of intermediate consumption coming from the industry, used in agriculture, was accentuated after 1990. Auto-consumption through seed use, fodder, and seeding material produced extended, which led to the extensive character of agriculture. Combined fodder factories limited their activity along with the shutting down of pig, poultry and other animal farms. The quantities of chemical fertilizers and pesticides used on agriculture significantly decreased and factories cut production and raised costs. Thus, in 1989 the quantity of chemical fertilizers used in agriculture was 1.159 mil tons, and the one of pesticides of 71,456 tons of active substance, beginning with 1990 consumption drastically decreased reaching in 2007, 380 thousand tons of fertilizer and 9,412 tons of active substance.

The same situation manifests with regards to certified seed consumption where, for example, according to data from the Ministry of Agriculture, the certified seed consumption decreased in 2007 as opposed to 1990 from 320 thousand tons to 200 thousand tons for autumn wheat, from 163.8 thousand tons to 20 thousand tons for barley, from 17.9 thousand tons to 2 thousand tons for oats, from 21.2 thousand tons to 20 thousand tons for corn. Just as chemical fertilizers, certified seeds play a very important role for the level and quality of production, with a direct influence on agricultural growth. Along with the changing of property structures, following the application of Law no. 18/1991, the new owners neglected the role of quality seed, using large amounts of noncertified, weak biological material, with low production qualities.

As a consequence, the endowment of agricultural exploitations did not improve, and the consumption of materials decreased on a yearly basis due also to a hostile price policy towards agricultural producers. The prices for production means of industrial origin climbed at a rate of almost double vis-à-vis the price of the products delivered by the agriculturalists. An eloquent image in this regard is given by the ratio of the indicators of the prices of goods received by the agriculturalists, for agricultural products and the indicators of the prices paid by agriculturalists for the industrial products necessary for agriculture, a ratio also known as "price scissors". The Institute for Agrarian Economy of the Academy of Agricultural and Forestry Sciences "Gh. Ionescu-Sisesti" determined such a ratio for the 1990-1996 period. According to the calculations, the indicator for the price of agricultural products in this period was 19,535.5%, meaning an increase of over 195 times, and the general indicator of the price of industrial products bought by the agriculturalists was 30,108.6%, meaning an increase of over 300 times. From the data available from the institute, we conclude that in 1996, from 1990, the price of tractors increased 428.4 times over, the price for agricultural engines 275.7 times over, the price for chemical fertilizers 175.5 times over, the price of fuels and lubricants 291.5 times over. In these conditions, the price scissors was 65%, with 35% against agriculture.

The raising of the price of industrial products led to the de-capitalization of agricultural exploitations, the incomes of the rural population have diminished year by year, bringing it in the position of not being able to cultivate the areas at its disposal. All of these have determined the agricultural producers to reduce the consumption of fertilizers, to not use high performance technologies, selected seeds or even to give up the mechanization of works, preferring to use animals for ploughing, harvesting and transport. The legal rules and means of support for agriculturalists were not financially sustained at the level of demands, and the actual application was held back by the bureaucratic system which had to be respected. The entire support system for agriculturalists by the state had a limited effect. It managed to keep certain agricultural sectors at a survival level. The yearly financial effort of the state was not sufficient as many agricultural exploitations did not have other means at their disposal to properly use the aid provided.

The negative factors which determined a reduced degree of technical-material endowment of agricultural exploitations are multiple. They can be synthesized as follows:

- ✦ excessive parceling of terrains and inadequate territorial dimensions of the agricultural exploitations regarding the use of tractors and high performance rigs;
- ✦ reduced governmental resources allocated for the modernization of agriculture;
- ✦ the defective management and incoherent nature of the crediting and financing policy of agriculture;
- ✦ the insufficient resources of agricultural producers, devoted to investment, participation and co-financing development projects;
- ✦ the de-capitalization of agricultural exploitations;
- ✦ the lack of a functional system of services for the agricultural producers, especially regarding financial-banking services;
- ✦ the lack of an organizational arena for rural loan cooperatives;
- ✦ the weak presence of foreign investors in agriculture;
- ✦ the lack of organization of downstream farming market in agriculture and the difficulties of adapting to the new agricultural structures;
- ✦ the weak development of markets which generated an unbalanced competitive environment which does not favor agricultural producers;
- ✦ the raising of prices for the industrial products bought by the agriculturalists;
- ✦ faulty management and others.

The favorable environment which might stimulate the development of the technical-material base, the introduction of high performance technologies in Romanian agriculture is the determining private property over the land and main technical means. The modernization of the technical-material base in agriculture is a complex process which includes the expanding of engine uses, chemistry, the raising of high productivity biological material consumption (seeds, planting material, hoeing animals), the extension of irrigations on areas affected by draught and others. During the transition period, for agriculture, certain solutions are imposed for a better management of technical-material factors, a fundamental criteria being the minimizing of acquisition and exploitations costs. The technical-scientific progress and innovation have a big impact on the level of production and productivity of engines. An essential role is played by the interdependencies between technical progress, biological and chemical progress, fodder production process, artificial sowing, improvement of animal breeds and others.

Therefore, the lack of financial resources constitutes the main obstacle for the modernization of the technical-material base in agriculture, widening the agricultural production gap vis-à-vis the European Union, getting farther away from its performances. The technical-material resource deficits within agricultural exploitations have made it so that the crops after the year of 1990 are plagued by reduced efficiency. This is because the dropping degree of soil fertility cannot be compensated in any other way than by raising the amount of allocated fertilizer. The quantitative and qualitative drop in vegetal production is equally dramatic with regards to the consumption of certified seeds, which is both a cause and an effect of this evolution. Without promoting a sustained process of concentrating the exploitation capital and the territorial capital in viable agricultural exploitations, without creating and developing functional markets of necessary input and agricultural products, any agricultural progress in Romania is hard to carry into effect.

3. Case Study. The level and structure of technical-material resources in the agriculture of Galati County

During the transition period to market economy, the agriculture of Galati County is confronted with an acute crisis of capital, both fixed and working. The technical base constituted by tractors and agricultural engines does not come close to satisfying the necessities of the agriculture of Galati, because of their reduced number, as well as the high degree of wear. A large number of rigs have gone over the normal running time (being fully depreciated or

written off), being old and weakly productive, and the percentage of new rigs is very low. This causes additional difficulties causing frequent interruptions in the work schedule during agricultural campaigns. The lack of financial resources makes it so that in the majority of individual exploitations many agricultural works, which would normally have to be mechanized, are replaced by the manual labor of the family members, on many occasions even this labor proving insufficient, a fact which determines frequent situations in which the work takes too long, passing the optimal periods as established by the production technologies. Few individual husbandries afford to use the services of specialized mechanization units, and even these only for a small part of the agricultural works and not for the entire operation, as the agro-technical rules recommended by scientific research would advise.

Table no. 1. The situation of the tractor and agricultural engines fleet of Galati County between 2001 and 2007

							- units -
Type of rig	2001	2002	2003	2004	2005	2006	2007
Physical tractors	3585	3408	3313	3243	3405	3423	3501
<i>Private sector</i>	3078	3242	3185	3197	3369	3395	3473
Ploughs for tractors	2777	2816	2702	2762	2934	2962	3109
<i>Private sector</i>	2471	2691	2624	2740	2913	2944	3091
Mechanical traction cultivator	696	715	681	650	608	577	604
<i>Private sector</i>	599	679	658	650	607	575	602
Mechanical traction sowing machine	1526	1492	1445	1464	1464	1468	1544
<i>Private sector</i>	1334	1409	1379	1456	1452	1459	1535
Self-propelled combines for cereal harvesting	491	449	416	346	378	377	421
<i>Private sector</i>	462	437	412	346	377	376	420
Mechanical traction sprinkling and dusting engines	207	196	181	175	118	137	146
<i>Private sector</i>	102	141	136	139	111	131	140

Source: *The Statistical Annual of Galati County - 2008 edition*

From the analysis of the evolution of the tractor and agricultural engines fleet at the level of the County of Galati from 2001 to 2007, we observe a diminishing of their number in 2007 as compared to the reference year of 2001.

When comparing the data above with the terrain resources of the county, we observe a load of 85.67 he of arable grounds per tractor, going well over the country average which was of 54 he of arable grounds per tractor in 2007. An even worse situation is manifested in the case of combines where the average arable surface per combine is of 777.82 he, compared to the country average of 369 he per combine. If we take into account that the average load for Romania, as established by the Ministry of Agriculture is of 25-35 he of arable terrain per tractor and 175-200 he of arable terrain per combine, we get a very conclusive image of the precarious level of technical endowment of the county of Galati. The current status quo leads to the missing of the optimal period of running agricultural works and affects the quality demanded by the technology of each crop. The low level of equipment of the agricultural exploitations is related principally to the insufficiency of financial resources allocated to the acquisition of capital means.

The high degree of fragmentation of agricultural property, the reduced dimension of agricultural exploitations which cannot acquisition their own engines and rigs and cannot loan them either, considering that the associative forms of organizations are few, make it so that the mechanized agricultural works are replaced by manual labor or animal labor. The intermediate

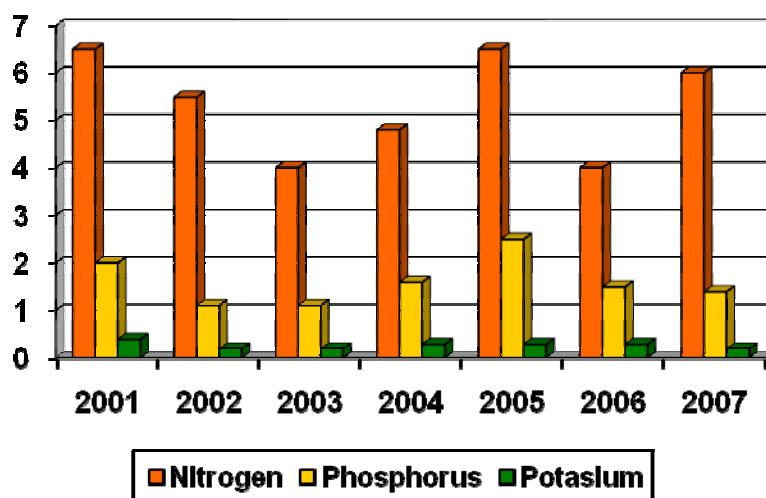
consumption of industrial descent, especially chemical fertilizers and pesticides are way under the necessary level for the County of Galati, but also for the quantities used before 1990, as is evident from the tables below.

Table no. 2. The evolution of chemical fertilizers applied between 2001 and 2007 in Galati County

Specification	2001	2002	2003	2004	2005	2006	2007
Chemical fertilizers applied - tons -	8828	6716	6221	6431	9383	5610	8429
<i>Private sector</i>	7318	6226	5699	6334	5146	5265	8235
- nitrogen based	6419	5442	4923	4628	6619	3957	6423
<i>Private sector</i>	5305	4954	4625	4544	4632	3619	6234
- phosphorus based	2025	1190	1179	1580	2604	1436	1574
<i>Private sector</i>	1742	1189	957	1570	458	1429	1569
- potassium based	384	84	119	223	160	217	432
<i>Private sector</i>	271	83	117	220	56	217	432
The area to which the fertilizers were applied (he)	99115	77529	86903	73431	85541	76223	158236
<i>Private sector</i>	79225	69742	81632	72249	25237	72696	156111
The average quantity of fertilizer applied per hectare (kg/he)	89,1	86,6	71,6	87,6	109,7	73,6	53,3
<i>Private sector</i>	92,4	89,3	69,8	87,7	203,9	72,4	52,8

Source: *The Statistical Annual of Galati County - 2008 edition*

Figure no. 1. The evolution of the quantity of applied chemical fertilizer



Source: *The Statistical Annual of Galati County - 2008 edition*

Table no. 3. The situation of the consumption of chemical and natural fertilizers in 2007 and of the areas they were administered on

Specification	Quantity, tons	The area they were applied to (he)	Average quantity of fertilizer per hectare (Kg/he)
Chemical fertilizer applied	8.429	158.236	53,3
Natural fertilizer applied	87.750	1950	45,0

Source: *The Statistical Annual of Galati County - 2008 edition*

The quantity of chemical as well as natural fertilizer applied covers in a very small amount the need of the agricultural terrains.

Conclusions

Within the multitude of factors influencing agricultural production, we have material factors (agricultural rigs, fertilizers, pesticides etc.), natural factors (climate, earth or soil, water) as well as social factors. One observes that between the natural factors climate conditions may be identified. In the material (or economic) resources group, we find included the technical means of mechanizing agricultural works, construction, means of transport of products, energy means (be they electrical or thermal), chemical treatment means and water. The material character of these resources results from the fact that they are obtained following the intervention of human labor in the production process.

The most urgent problem and most important one at the level of the County of Galati, as well as at the national level, is the amelioration of agricultural exploitations. By creating exploitations sized between 40 and 50 hectares, the terrain resources may be better harnessed, the excessive parceling of terrains would be reduced and optimal conditions for the use of mechanized means would be created, as well for the application of new technology, and the financial resources, including state support, may be better managed and focused towards the provisioning of engines, rigs, fuels, fertilizers and other materials.

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Employees Misbehaviour: Formes, Causes and What Management Should do to Handle With

Edit LUKÁCS

„Dunărea de Jos” University of Galați
elukacs@ugal.ro

Gheorghe NEGOESCU

Ovidius University Constanta

Sofia DAVID

sofia.david@ugal.ro

„Dunărea de Jos” University of Galați

Abstract

In many organizations there are employees who sabotage processes, steal company property, harass others, cheat the management or mislead customers. These misbehaviours of the employees are pervasive and costly. In the same time, they are warning that employees' needs are not met. Sometimes managers avoid to facing the unacceptable behaviours of the employee due to certain psychological reasons. The approach of problem-employees is a challenge for the managers. While most of them may be tempted to dismiss these employees researches have indicated that the best alternative is to learn how to behave with that person.

Key-words: employee misbehaviour, violence at the workplace, substance abuse, workplace dishonesty, causes of misbehaviours, problem-employees.

JEL code: M51

1. Introduction

Organizational misbehaviour is defined as “any intentional action by members of organizations that violates core organizational and/or societal norms (1). Inappropriate or illegal employee conduct can create a wealth of problems for any employer. It can result in a decrease of productivity, damage to the organization business or reputation, injuries to employees and customers, and exposure to costly legal liability. Employee misbehaviour can take many different forms—from substance abuse that can create workplace hazards, to workplace violence that threatens individual safety, to improper e-mail and internet usage that can result in exposure to lawsuits and security violations. Now more than ever before, employers need to be vigilant and knowledgeable as to the warning signs of inappropriate or illegal conduct, the preventive measures to take, and what to do when employees engage in behaviour that is likely to put the company or others at risk(2). In this paper we present some forms of inappropriate behaviour of the employees, the causes that determine these and how managers should handle with them.

2. Forms of misbehaviour

2.1. Violence in the workplace

No employer wants to think that there is a potential for violence in its work-place, but workplace violence is a disturbing fact of life.

According to the results of a survey made by the European Agency for Safety and Health at Work (EU-OSHA), 9% of the employees from EU, respectively 12 million persons, declared that they were subject to moral harassment at the workplace in year 2000 (3). Also, another research of the same institution (EU-OSHA), points out that 4% of the active population from Europe were victims of physical violence on the part of persons out of the workplace, like customers. Most of the workplaces with a high risk of violent work-environment belong to the service sector, especially to public health institutions, education, finance, catering, transportation, retail trade. Contact with customers increase the risk of violence (4).

Not all incidents of employee violence can be predicted or prevented, but companies today are expected to take reasonable measures to keep informed of potential threats to the health and safety of employees and customers. Some of the warning signs of workplace violence are: explicit threats and verbal abuse; inappropriate displays of anger, such as screaming and slamming doors; continually disgruntled attitude; paranoid behaviour; exhibition of wide mood swings, or other erratic behaviour.

2.2. Inappropriate e-mail and Internet usage

E-mail is a powerful communication tool that lets individuals transmit information both within and outside of the organization inexpensively and with lightning speed. However, an inadequate usage of e-mail and the Internet by the employee can be a serious problem for an employer. E-mail transmissions are considered "documents" and can be used against an employer in a lawsuit in the same way as any written letter. In recent court cases in U.S.A., employee e-mail messages have been presented as evidence in claim of discrimination, sexual harassment, and other illegal activities. Similar issues arise with general computer use. Employees commonly create and store personal documents on employer-supplied hardware. Furthermore, excessive non-business-related Web surfing can impede business productivity. Managers should develop and communicate a policy regarding online issues, which should apply to all employees with access to these tools. (5).

2.3. Substance abuse in the workplace

The issue of substance abuse in the workplace is an unpleasant one to face. It is estimated that approximately 65 percent of on-the-job accidents are attributable to drug and alcohol use. A great deal of work has been conducted on the effects of alcohol on judgement and on the performance of skilled work. In general the experimental work has shown that alcohol has a deleterious effect on performance because of its effect on vision, perceptual motor functions, judgement, reasoning and memory (6). Many of the studies in this area have concerned driving tasks. For example, Bjever and Goldberg (7) used a special truck designed to measure the drivers' ability to operate a car within close limits. Such manoeuvres as parallel parking, driving out of a garage, and turning around in a narrow roadway were required. Their results showed that the time taken by skilled drivers to perform test correctly was significantly lengthened when the subjects were at a blood-alcohol level of about 40mg/100 ml of blood. For this reason, it is important that all employers understand the consequences of substance abuse in the workplace and take proper steps to prevent and eliminate the problem.

2.4. Accidents as Withdrawal Behaviour

In 1950 Hill and Trist advanced the theory that people may be motivated to have an accident so that they can take time off work. Their withdrawal hypothesis was supported by comparing the uncertified absence rates of 200 men who had remained free from accidents with those of 89 men who had sustained one or more accidents. Their results indicated that those sustaining

accidents had had significantly more other absences than those who had remained free of accidents. Unfortunately, since the authors only reported the number of accidents, it is not possible to determine whether the people who had high accident rates had more accidents or merely reported more. Only the former would directly tend to support the theory. There is very little evidence to support the hypothesis that workers either consciously or unconsciously cause an accident in order to escape from work.

2.5. Other workplace dishonesty

A company can experience other acts of employee dishonesty, such as theft of company property or the property of other employees, or fraud. In order to root out or prevent such incidents, managers may use some techniques - such as search of employee property, or employees themselves, video surveillance and telephone monitoring. However, managers should take into account whether the actions they want to take are reasonable for proper business purposes and if these actions come against the privacy expectations of the employees. In businesses where there is a high incidence of employee theft, such as retail or manufacturing industries, random searches are common. For other types of businesses, random searches may create more problems than they solve, especially in the areas of employee morale and productivity. For this reason, it is best for the companies in lower risk businesses to limit searches to situations where there is probable reason to believe that they will find what they want.

3. Causes of employees misbehaviours

Misbehaviours in the workplace not only deplete an organization's energy, but they are also a warning that employees' needs are not met. That is the premise behind the five key drivers of misbehaviours released by Juice Inc., a HR consulting firm that helps companies boost their organizational energy and employee engagement.

The five leading drivers of employee misbehaviours are:

1. *Bad fits*- When employees are not doing things they are good at, it creates inner friction and a feeling of incompetence and lack of focus, poor performance and mistakes follow.
2. *Unclear about their role*- When employees are not clear on what is expected of them, and they are unsure about how they serve the company, it can create feelings of confusion, insecurity and mistrust. They begin to question whether they are succeeding or failing in their role; as a result, they become critical of management initiatives and demonstrate poor commitment.
3. *Lack of support*- This includes physical tools and emotional support. When people do not have the time, tools, resources they need to succeed, it can leave them feeling overwhelmed, taken-for-grant and resentful. They respond by bad-mouthing the organization, complaining, and showing an overall poor attitude.
4. *Not being valued*- Employees look for a "thank you" to feel appreciated for their work, but they do not always get it. The resulting misbehaviour includes lack of trust and loyalty, low engagement, miscommunication and a toxic culture.
5. *Lack of inspiration*- Individuals can not sustain their energy when they feel their leaders are hypocrite and their job has no real purpose beyond making money for someone else. When people do not feel like they are living up to their potential and being held accountable to results, apathy and cynicism set in (8).

4. Why managers avoid deal with unacceptable employee behaviour?

There are numerous psychological reasons why managers fail to address poor performers, the co-workers' resentment and the team dysfunction.

In an article on the webpage of the firm *WorkRelationships*, dr. Joni Johnston emphasizes five of the most common reasons why managers avoid to face unacceptable employee behaviour (9):

1. The manager feels dependent upon the employee. Sometimes, a poorly performing employee has some special talent or connection that makes them seem indispensable. Many managers continue to put time, money and energy into marginal staff members because they fear they will not be able to find more competent ones. Poor performers never justify their costs. To avoid this trap, recruiters should develop and maintain ongoing relationships with top recruiting sources.

2. The manager confuses discipline with punishment. Managers do not want to be put in the role of punitive parent or heavy-handed school principal, verbally rapping their misbehaving employees on the knuckles. Managers who have this attitude generally do not have the necessary performance management skills to apply positive and corrective discipline.

3. The manager feels sorry for the employee. Perhaps the manager knows about a tough family situation or a recent divorce and do not want to pile one problem on the top of another. Managers can help to avoid this trap by having a conversation of how well she/he is doing. Most people who can give an accurate assessment of their own work performance can identify areas needing improvement.

4. The manager has never told top management about the problem and/or convinced them of how serious it is. Sometimes, the manager can not handle the problem alone. He/she needs to involve the Human Resource Department in the review of the criteria by which the employee with an unacceptable performance is appraised.

5. The manager feels responsible for the employee's poor performance. For some managers, admitting that an employee has not met expectations signals some kind of failure for the manager. Often, managers blame themselves for a staff members' failure, and are willing to do almost anything to insure the employees' success.

5. Approaching problem-employees

The difficult demeanours of some persons or of the so-called problem-employees are easily recognisable in companies due to the emotional reactions they develop. According to experts from the point of view of the antisocial demeanour really difficult people are rare, in return anyone can have a difficult demeanour at one time (10).

Generally speaking the difficult demeanours of some of the employees can consist of objective causes such as assignment of tasks which exceed their abilities or, on the contrary, of too few tasks, lack of variety of work, setting vague objectives for the employee, unexpected working hours, uncertainty of the job or constant and continuous pressure (11). The difficult demeanour is often direct consequence of stress and exhaustion.

There are also times when difficult demeanour is based on personality features such as hypersensitivity, negative thinking, low self-respect or aggression.

Regardless of what the causes of difficult demeanour are, the approach of problem-employees is a challenge for the managers. While most of them may be tempted to dismiss these employees researches have indicated that the best alternative is to learn how to behave with that person. Dismissal is not always a solution as recruiting and training new persons is expensive (12). On the other hand the presence in a work group of an aggressive, arrogant, insubordinate, finical, hypersensitive and unproductive employee is difficult to bear. It is even worse when he has alcohol problems.

In organizations various types of problem-employees are to be met and they are often named with humour: „little genius”, „pathologic blabber”, „chronic complainant”, „the informer”, „the absent-minded”, „the bad-tempered” and so on.

The choice of the right demeanour for the approach of the employee will be made according to the type of demeanour.

5.1. Understanding the hypersensitive

No one likes to be criticised but most people can accept constructive critiques. However some persons feel any kind of critiques. Every time there are vague critique hints made related to their activity they become defensive and start accusing people that they are picking holes in them. The hypersensitive employee's fear to be criticised leads to great precaution in all his activities. In order not to risk by making the smallest mistake he checks and double checks anything he does. Consequently he doesn't succeed to finish his tasks on time. The hypersensitive employee may have low self-respect and therefore needs encouragement. Approaching him takes plenty diplomacy and pleasantness. Every time his activity is being analysed one should start by praising the good aspects of the accomplished activities and then make suggestions of how he can improve the unsatisfactory zones (13).

5.2. Tempering tantrums

There are employees who lose their temper occasionally and scream and yell at their colleagues and even at their bosses. They calm down rapidly but their demeanour affects the work of the entire team and some time has to pass until everything returns to normal.

Here are some suggestions of how to treat a person who has tantrums:

- After he has calmed down you should have a human to human discussion with the person. Emphasise you understand that it is not always easy for anyone to control one's temper but these tantrums are not to be accepted at work.
- If he has another tantrum send him out of the room until he calms down. Tell him that the next tantrum will lead to disciplinary actions.
- Recommend him to think about the old saying: „count up to ten before opening the mouth”.
- If you have an employee assistance program suggest the member to set a meeting with one of the program's advisors.

5.3. „Got you” game

Almost in every organisation there is an employee whose greatest pleasure is to catch the others making a mistake. The persons who play this game try to display their superiority. Because they usually do not have original ideas or constructive suggestions they find it satisfactory to discover others' mistakes, especially their boss's. They try to make them feel embarrassed and uncomfortable. The most adequate approach is by ignoring their observations

or the answer by making a joke and smiling: “thank you for drawing the attention before something bad would happen”.

5.4. Denying negativity

Nothing goes right for the negativist employee. He always has a reason why an activity or a program can not be realized. Negativist persons cause more problems to the organisation. They oppose to every change just because they like to oppose. No argument ever helps. They often do whatever they can to sabotage a situation so that the new method wouldn't work and they could then say: „I told you so”. Negativist persons have a negative impact on the team's morale. As a rotten apple can affect a whole barrel, so can a negativist person spoil the entire team's morale.

When new ideas are being brought forward to negativist persons it is good to ask them to express their objections out-loud and then assure them that their observations are being appreciated.

Negativism is often based on personality factors which are formed since a long time and which exceed the abilities of any manager to solve the problem. In this case professional help is required.

5.5. The informer

The informer type problem-employee can be very good in his domain, can have multiple qualities, but has the greatest flaw: a bad character. He is disgusting by providing information about his colleagues to his boss: „X is late again”, „Y is talking to her friend on the phone again”. Such a man can manipulate the relations among the employees of a company for his own benefit. He is the same man who will leave to another company for a greater income and will expose all the secrets of the previous company.

Although it doesn't hurt a manager to know everything inside a company and always be informed about it, such an employee could be dangerous for the company.

6. The employee handbook- a tool for handling with the employees' misbehaviour

The employee handbook is a very useful way of documenting policies and procedures, and can serve a variety of purposes. The document informs employees about company policies, procedures and practices, and can communicate expected standards of performance and behaviour. The handbook is a reference guide to help managers and supervisors take appropriate actions in a given situation. A well designed handbook can positively influence employee morale and promote employee loyalty. Provided that the employee handbook is carefully drafted, it can be an important tool to avoid liability in employee lawsuits. The employer that clearly states policies against discrimination and harassment based upon race, gender, religion, age or other criteria; outlines grounds and procedures for termination; and follows these guidelines over time will be in the best position to defend against charges in these areas.

In their work, *The HR Answer Book*, the authors Shawn Smith and Rebecca Mazin propose to create the employee handbook with the following structure (14):

Sections	Content
Welcome/introductory section	<ul style="list-style-type: none"> • Letter of welcome • Information about the history of the organization, its mission and values • Explanation about the purposes of the employee handbook
Employment and Compensation policies	<ul style="list-style-type: none"> • Hours of work; break times • Attendance policy • Overtime policy; time records • Pay periods • Transfers and promotions • Performance appraisal systems • Personal records • Standards of conduct; dress code • Confidential information policy • Theft of company property • Smoking policy • Employment of relatives • Electronic communications policy
Time-off policies	<ul style="list-style-type: none"> • Vacation time, holidays • Personal days, sick days • Unpaid leave of absence
Employee benefits	<ul style="list-style-type: none"> • Health and life insurance • Pension plan • Workers compensation benefits
Employee safety policies	<ul style="list-style-type: none"> • Safety rules • Procedures for reporting an accident • Emergency procedures • Procedures for responding and preventing violence in the workplace • Policies prohibiting workplace substance abuse
Corrective discipline/ Termination policies	<ul style="list-style-type: none"> • Open door policy • Internal complaint procedure • Progressive disciplinary procedures • Dismissal • Resignation

The handbook should be written in simple and clear language, avoiding ambiguity. It is recommended to use a positive tone, not to adopt a punitive posture.

7. Conclusions

Managers, like most people in our culture, have grown up believing that misconduct must be followed by punishment. But the fundamental purpose of a discipline system is not to punish misbehavior and enforce compliance- it is to build individual responsibility and reinspire commitment. Warnings, suspension and reprimands can certainly produce behavior change. But punitive tactics will not produce employees who are committed to the goals of the enterprise.

An important role in sheltering organizations from employees' misbehavior has the pre-employment screening of the candidates. If in the course of a background check on a potential

employee the manager discover a history of workplace violence, substance abuse and other workplace dishonesty, he/she should decide not to hire that individual.

As regards the monitoring and investigating any type of employee activity, managers should ask themselves these questions:

- Is the scope of the monitoring or investigating reasonable?
- Is there proper business justification for the monitoring or investigation?
- Are proper steps being taken to protect any employee-sensitive information uncovered during the course of the monitoring or investigation from disclosure to parties that do not have a need to know this information?

Excessive monitoring can be damaging to employee morale and monitoring without notifying employees that they are monitored may lead to a lack of trust in the integrity of the organization. It is critical to develop and communicate a sound policy regarding proper usage of the company computer and e-mail system. Managers have to limit the scope of monitoring to that which is necessary to achieve their legitimate business purposes.

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Competitiveness of Romania's South-East Region in the European Context

Mihaela-Carmen MUNTEAN

mihaela_c_muntean@yahoo.com

Costel NISTOR

costel.nistor@ugal.ro

Rozalia NISTOR

rozalia.nistor@ugal.ro

"Dunarea de Jos" University of Galati

Abstract

The European interventionist policy is much stronger on the regional level than on the level of national states. Each economic activity in Europe's regions has now its own place on the European market economy. Creating a European market is important due to its size and economic potential. The Central and Eastern Europe is a potential area of new markets expansion and organization. Moreover expansion and trade are becoming important to the entire European economy as well as all its regions.

Key words: region, regional development, competitiveness, European Union

Jel cod: F15, O18, P25, R11

Introduction

The present paper is structured into seven chapters. The first chapter presents the conceptual definitions of the notions of competitiveness, comparative advantage and competitive advantage. Chapter two emphasizes the region's place in the European context then, Chapter three will determine what the role of regions is. Chapter four presents the programs and instruments employed for regional development. Chapter five presents the regions and regional development in the main European Union Member States so that in the next chapter to present the regional development in Romania, namely, Romania's eight development regions. Chapter seven focuses on the South-East development region in order to determine the hierarchical position of this region in terms of regional competitiveness.

1. Conceptual definitions

The competitiveness increase has become the main objective of the social and economic strategies of development over the last decades of most countries, mainly of the more developed ones, of the strategies for sector development in the national economies as well as business strategies. The rapid development of the contemporary phenomenon of globalization which has broadened the global areas of economies, sectors and firms competition has emphasized the importance of their competitiveness for a favourable position in the international competition and consequently measures have been taken to stimulate the determining factors and to benefit of their effects.

The concept of competitiveness is the grounds for opinions that are often divergent. This is why, so far there has not been widely accepted a definition of competitiveness and has not been yet developed a comprehensive model for the formalization of its content. The current state of research in the field provides therefore grounds for conceptual disputes regarding competitiveness.

According to World Bank, competitiveness cumulates the elements that could provide a top position to an economic entity from its competitors.

According to OECD, "Competitiveness is the ability of companies, industries, regions, nations or supranational entities to ensure a profit to the production factors and a relatively high usage on a sustainable basis, where they are not exposed to free competition."

Based on the concepts of competitiveness and comparative advantage (given by the material factors endowment) the concept of competitive advantage was developed by Michael Porter (1990), (in addition to the material factors endowment, and owning and adequate employment of the intangible factors, first of all R & D and marketing skills). The concept was determined in Michael Porter's vision by the supply and demand factors, the existence of support industries, firm strategies, market structures.

A reference point regarding competitiveness is provided by Paul Krugman (1994), according to which countries should not be seen as competitors on international markets, but only companies compete through the products / services they offer. Countries can compete in exchange by attracting international mobility factors - capital and skilled labour – benefiting of the *location advantages* they have, consisting of low corporate taxation, efficiency of public infrastructure, fair regulations and not very expensive work force.

2. The region's place in the European context

The domain of space economy can be simplified to a series of concentric circles: the core – local economy, then the regional, national, European and international economy. The importance and size of economic activities between the core and different levels (concentric circles) differs substantially. In this context, the regions will develop differentially compared to the national economies.

The European interventionist policy is much stronger on the regional level than on the level of national states. Each economic activity in Europe's regions has now its own place on the European market economy. The creation of a single market will determine the dimensions of this market and the flexibility required by further economic increase as well as a remarkable expansion. As long as the individual nations and regions maintain their independence and cultural and linguistic diversity, the unique market will have a major influence on the economic development.

Creating a European market is important due to its size and economic potential. The Central and Eastern Europe is a potential area of new markets expansion and organization. Moreover expansion and trade are becoming important to the entire European economy as well as all its regions.

Among the E.U. countries there are not similarities regarding the definition of the regions set up geographically, of the population or other criteria. The differences that can be identified show the development of the political and administrative system from each country. Therefore, defining the region is essentially a complex phenomenon due to the difficulty of identifying an

element accepted by all specialists.

Sometimes the region is defined as the administrative level on which certain public sector activities are organized. In the UK, for example, education is managed both on national and local levels, while the health department administration is accomplished on regional level and for certain specialization (pediatrics, cardiology) on even lower levels. The main government departments have their own regional offices that set up and acknowledge these territories in the political formation.

Local governments enjoy the advantages of integrating certain activities on the regional level, as demonstrated by the creation of the Regional Association of NV or of Northern England Local Authorities in England in 1992. The concept of planning on regional level differs substantially from one country to another. Expanding the regional political power varies on national level as well as the power of the regional system of administration.

On the EU level, the region represents a point of reference between the central and local governments. Sometimes regions have a clear-cut cultural identity. It can be associated with linguistic, political, cultural differences between the region and the nation it belongs to, like in the case of Catalans from the North East of Spain.

A regional model has been designed within the EU framework, model that focuses on the economic activity and which quantifies two aspects:

- a) output processing whose structure on regional level is different, especially concerning services;
- b) work factor processing which is a production factor whose services are required in the output production under the current circumstances, the EU's main challenges on regional level are the following:
 - a) structuring and diminishing the weight within the economic frame, which leads to the decrease of the employment opportunities in the economy's traditional sectors;
 - b) expansion of the third-party sector both in the private and public companies;
 - c) technological changes regarding the informational technology, production processing and automation;
 - d) changing the structure of the production factors demand, connected with the changing of national economy;
 - e) increase of integration on the national, European and international level of the market, production factors and financial markets;
 - f) changing the influence regarding the location of economic activities on inter-regional and intra-regional level;
 - g) European integration, which may lead to a more powerful convergence and to a greater divergence in the regional economic increase;
 - h) emphasizing the political centralism in certain economies at the same time with the diminishing of the political control on regional and local level;
 - i) the possibility of co-operation between the private and public companies in their search for proper solutions regarding the urban and regional challenges;
 - j) identifying efficient solutions to the regional challenges and accomplishment of the necessary circumstances required for an efficient political intervention.

3. Regions' role

The regions that are included in the states structure have a tremendous importance if they are regarded through the levels the Member States and associated States of the European Union need to accomplish. On the one hand, an equal treatment in terms of financial support is

ensured by the EU to the Member States and their regions. On the other hand, the possibility of an effective collaboration between state agencies is created. The regions will take an active part in the accomplishment of a united Europe and this aspect requires a well-defined place in institutional structures and in decision-making processes. After putting into practice the Maastricht Treaty, the regions became actually one of the pillars of European integration. Currently, Europe is made up of a veritable diversity of regions. These regions are the result of the social, economic and cultural diversity of the society. Europe cannot exist unless it complies with this diversity.

The issue of regionalism should not be regarded as a restore of territorial forms that existed in the past, usually based on nationalist principles. The State and the region within the state depend on each other and the principle of subsidiarity, stated in the Maastricht Treaty, is regarded as the basis for powers and competencies articulation in each state. The united Europe is based both on the component states as well as on regional and decentralized components of these states.

The role the regions have in building Europe consists of:

- ✚ maintaining, complying and taking advantage of the traditions, culture and history of regional collectivities;
- ✚ ensuring economic prosperity of each area;
- ✚ enabling the citizens the direct and effective participation to the business management of the administrative territorial unit in which they live;
- ✚ through the regional autonomy it contributes to the strengthening of democracy and power decentralization;
- ✚ ensuring a balanced and harmonious development of all territorial and administrative units;
- ✚ it constitutes an adequate power level for the implementation of the principle of subsidiarity;
- ✚ ensuring the premises of interregional cooperation between different countries, an important contribution of building the future Europe.

4. Programs and instruments for regional development

On the European level, as a result of the summit that took place in Berlin in July 1999, the granting of incentives provided by the European Union was re-confirmed and it would be put into practice through the four Structural Funds. On the basis of the European regional policy new priorities, the European Commission decided the budgetary allowance for each member country and for the four community initiatives.

During the Summit was also decided the creation of the fifth instrument for Structural and Pre-adhesion Policies which aims at supporting the structural changes of the countries in the pre-adhering phase and preparing the candidate countries to work in the European institutional system.

The main European Structural Funds are:

- *European Social Fund (ESF)* – which provides assistance to the disadvantaged and unemployed groups to get work places. About 75% of the total budget of the fund is used to decrease unemployment. The main instruments used to accomplish these objectives are financing formation activities and professional re-conversion, unemployed people social rehabilitation, promoting equal chances and assistance for the labour force recruiting system development.

- *European Fund for Orientation and Agricultural Guarantee*- represents the financing instrument of the EU common agricultural policy. The financing objective of this fund

contributes to the agricultural re-structuring in the community zone and to support the agricultural products market. There are two sections which are specific to this fund:

- ✚ *European Fund of Regional Development* (EFRD) – which is meant to reduce the development discrepancies between member countries' different regions.
- ✚ *Financial Instrument of Fishing Orientation* (FIFO) – intended for the piscicultural sector and which has as a main objective the promoting of a durable balance between the sector's exploitation capacity and the seas regeneration capacity.

For 2000 and 2006 period, there had been financed four Community Initiatives with a total budget of 5,35% from the regional policy budget. The purpose of these initiatives is that of identifying common solutions for the challenges that the European Union generally faces. These initiatives are the following:

- ✚ INTERREG III – which focuses on the cross border, cross national and interregional cooperation. It is subsidized by the *European Fund of Regional Development*.
- ✚ LEADER+ - focuses on durable development of the rural areas. It is financially supported by the *European Fund of Orientation and Agricultural Guarantee*.
- ✚ URBAN II – it concentrates on restructuring the urban areas that are facing development challenges. Its programs are financed by *European Fund of Regional Development*.
- ✚ EQUAL – is intended to the European cooperation to fight against discrimination and the inequality in access to work and it is supported by the European Social Fund.

Moreover a special fund for *Innovative Activities* was created having a budget of 0,5% from the total budget used to improve the quality of the regional development strategies. Between 2000 and 2006, the commission identified the following topics for *Innovative Activities* from the *European Fund of Regional Development*:

- ✚ Regional economies based on knowledge and technological innovations;
- ✚ "EuropeRegio", the informational company of the regional development service;
- ✚ Regional identity and durable development.

The performance reserve is another special character instrument applied by the commission. About 4% of the funds allotted for every individual member country are withhold annually, the accumulated amount of money being distributed to the most successful programs.

On the national state level, the regional development is accomplished by involving a certain chain of mechanisms among which we mention:

- ✚ ***Business development relocation.*** This particular mechanism was employed on a large scale in France, Great Britain between 1970 and 1980 and is currently applied in Greece. The state uses this mechanism to reduce the setting up of new companies in overcrowded cities and to stimulate the business development by locating the new companies to the cities suburbs or to underdeveloped areas.
- ✚ ***The state's economic activity territorial delimitation.*** This mechanism has lost its importance as instrument of the regional development when the state property diminished. Another aspect of this mechanism is represented by the social acquisitions which were used in the European states to purchase mainly products from disadvantaged regions. Due to the fact that these acquisitions were branded as discriminatory, currently they are not used any more.
- ✚ ***Companies' financial stimulation*** is applied in order to draw on companies in locating the production and investments in disadvantaged regions by granting fiscal relief, preferential credits, incentives for work place creation, etc.
- ✚ ***Creation of infrastructure*** for the regional development which manifests itself in the creation of the informational infrastructure, investments in social infrastructure, creation of the scientific research centres in universities, etc.

In the Central and Eastern European countries, two types of mechanisms for regional development are frequently used:

- 1) regional development programs, developed by local authorities and also by the Regional Development Agencies
- 2) support of the entrepreneurship's subjects. Mostly the support granted to the regions is accomplished through the regional development programs. Typically these programs contain all regions except the capitals and their peripheries. The funds granting is accomplished by the authorised entities from the Regional Development Funds through the Regional Development Agencies, or local bodies responsible for regional development. The programs include a wide range of issues focusing on creating new jobs, infrastructure development, creation of social infrastructure, business development, tourism, etc.

The regional development support programs are different. If in Hungary these programs are developed identically for all regions, in Estonia such programs are developed for each region separately. Eight regional development programs include the following regions: the peripheral districts, multifunctional cities, islands, Setumaa region (eastern Estonia), the region of south-east, the north eastern Ida-Viru, border areas, local communities.

The second type of mechanism is different from the one applied in Western European countries. If the EU support is granted through grants, in Central and Eastern Europe the priority is given to credits, grants and business tax incentives. But lately, with the opening of the EU funding of projects through the PHARE Program, the practice of awarding grants began to be applied in these countries as well. The European Union experience has emphasized the fact that the most important tool that can support the accomplishment of the regional programs is the setting up of a Regional Development Fund. Such funds have been created, either on national or regional level (e.g. in Romania) in all European countries. The principle of creating such funds lies in financing, which means the participation in its implementation of the governmental, private and international financial means. From this point of view, the main possible sources that may contribute to the formation of a Regional Development Fund are the following:

- ✚ Funding from Central Government
- ✚ Local budgets of municipalities and communes in the different regions
- ✚ Private sector
- ✚ Structures and international funding institutions.

The proportions in which they contribute to the creation of the Regional Development Fund are different. Moreover, the main contributor may be the state in the early stages of system implementation. A Regional Development Fund should have the necessary means to ensure the local economic development, but should also be well structured. Usually through a Regional Development Fund direct grants cannot be awarded. These can be granted to fund programs and projects taking into account some very specific methods and based on some clearly defined criteria. To ensure a better implementation of the best projects, funding is accomplished through an open system for applications receipt. The criteria include regulations regarding the type of costs that can be covered, the proportion and type of self-financing required and the type of financial assistance contribution that can be provided, etc.

5. European Union's main member states regions and regional development

FRANCE: This particular region is made up of a series of departments and it is not regarded as a superior unit of these departments that should have a certain power over them. The regions were created to deal with certain aspects that also make the interest of other several departments. There are 18 continental regions besides the overseas territories, each representing an individual region. The regional entities study and make suggestions regarding

the regions' economic development, location of the investments objectives, adoption of measures that concern the development and updating of the communication department, public services, etc. The region's competence and tasks may be different from one region to another, depending on the requirements of the department that created them.

The region as well as the department has its own budget and financial means that result from taxes and fees they charge. The purpose of the region creation was to contribute to the economic and social development of the local collectivities. Nevertheless the economic crisis has had repercussions upon the regions as well, manifesting itself as a hindrance against the accomplishment of the tasks and objectives for which they were created.

GREAT BRITAIN: Its greatest administrative and territorial unit is the county, having the character of a region. The county deals with the prognosis of some public interest services, health preservation, organization of education, roads planning and building water supply, etc. to accomplish the competences, the county receives subsidies from the state budget. The government controls the way these funds are employed by the county's entities. The economic and financial public services are managed by public corporations. Therefore the county competences from the economic field are rather limited.

ITALY: it is divided into 20 regions being regarded as the state's greatest subdivisions. Each region is made up of two or more provinces. The regions enjoy administrative autonomy and they are entitled to issue normative documents in certain fields.

The regions' public administration authorities are entitled to organize public services having a regional character, to organize the local police, professional education, medical assistance, local trade, transport in the region, region's territorial systematization, public libraries network, regional tourism, etc.

The regional administrative authorities' regulations should comply with the laws of the Italian state. Each individual region has its own budget and financial means that result from taxes and fees they charge, income resulting from the regional companies managed by the region's directing bodies as well as subsidies from the state budget.

GERMANY: is a typically federal state made up of 9 lands. Each land has its own constitution and legislation; moreover the lands have to abide the federal laws and constitution. The regional autonomy is therefore more conspicuous in Germany than in any other member state of the European Union. The lands are entitled to work out freely all their economic, social, cultural issues without breaching any regulation of the federal laws and constitution. They have their own budgets and they set the taxes and fees on the land level, in other words they have total financial autonomy. As a result every land contributes to its own development and prosperity. Moreover these lands have organizational autonomy including the one involving the local administration.

SPAIN: this country belongs to the group of countries characterized by regional autonomy supremacy as well as Italy. Due to the referendum from the 6th of December 1978 the regions were entitled to their own autonomy. So far three regions have benefited of this decision: Catalonia and Basque Country since December 1979 and Andalusia since January 1982. The Spanish regions are situated at the maximum limit of decentralization. The regions decentralization deals less with the administrative organization modalities and more with financial aspects.

In Spain there are 15 continental regions and two insular regions besides the independent territories and the Spanish possessions form the North Africa. Each of the 17 regions has one up to eight provinces. One of the consequences of the regions' autonomy and decentralization is that, besides Spanish being the official language, there are also recognized as regional languages the Basque language and catalane one. Regardless of the unitary or federal states, the state regions from the European countries have an important part in the homogenous and balanced development of the regions they are made up of.

The European regions have the possibility to cooperate and collaborate among them in the view of accomplishing some mutual advantages and to take part in collaborations and cooperation on national, cross border and international level. The European Union acknowledges the regions from its member states as active participants to its policy. Therefore these regions have representatives in the European Union institutions. Thus the regions defend their own interests in the European Union as well as they do within the states they belong to. On their turn the states should take into account the regions' will and interests. The regions should apply the community legislation and the decision taken by the regions should comply with this legislation.

The strengthening of the interregional cooperation will contribute to the success of the united Europe accomplishment. This cooperation has first of all an economic connotation but it also manifests itself on social, cultural level, etc.

The future Europe aims to be not only a unity of homogenous states but also a diversity of regions that are harmoniously developed, balanced and prosperous. The success of the united Europe accomplishment depends on the way and pace of its regions development.

6. Regional development in Romania

Regional development is a new concept that aims at boosting and diversifying economic activities, stimulating investment in the private sector, bringing contribution to unemployment cut-down and last but not least leading to an improvement of the living standards. In order to apply the regional development policy, eight development regions have been established, which include the entire territory of Romania. Each development region encompasses several counties. The development regions are not administrative-territorial units; they have no legal personality being the result of an agreement between councils and local councils.

The regional development policy is a series of measures planned and promoted by the local government and central authorities, in partnership with different entities (private, public, volunteers) that aims at ensuring a dynamic and sustainable economic growth, enjoying the benefits of an effective regional and local potential, aiming at improving the living conditions.

The main areas that are targeted by the regional policies are the following: companies' development, employment, investments attracting, technology transfer, development of SMEs, improving infrastructure, quality of environment, rural development, health, education, education, culture.

Rural development occupies a distinct place within the regional policies and deals with the following aspects: poverty reduction in rural areas, balancing the economic opportunities and social conditions between the urban and rural areas, stimulating local initiatives, maintaining the spiritual and cultural heritage. The implementation and evaluation framework of the regional development policy is represented by the development region, set up as a voluntary

association of neighbouring counties. The development region is not an administrative and territorial unit and has no legal personality.



Figure 1 Romania's eight development regions

Romania is divided into eight development regions, named after their geographical position in the country: North-east, South-East, South, South West, West, North West, Centre, Bucharest and Ilfov.

Part of the historical province of Moldova, **the North-Eastern region of Romania** is an area where history, culture and traditions are present and they complete the natural environment, which is spectacular. It includes six counties: Bacau, Botosani, Iasi, Neamt, Suceava and Vaslui. The north-east region's economy is predominantly agrarian, particularly to the north, although there are several industrial cities. Due to low cost and well qualified labour the North-east Region is one of the best areas for investment in Europe.

Geographically and historically, the **South East Region** is the mix of Moldova, Muntenia and Dobrogea, located thus to the confluence of history and national culture. The administrative structure of the region includes 6 counties: Constanta, Tulcea, Braila, Galati, Vrancea and Buzau. The region's economy consists of the traditional branches of agriculture, trade, tourism and services and also several branches of developed industries.

The South Region consists of seven counties: Arges, Calarasi, Dambovita, Giurgiu, Ialomita, Prahova, Teleorman, being the third largest region of the country. The northern region is characterized by an increased level of industrialization while the south part, which is undeveloped, is the second area regarding the poverty level in Romania. This area is characterized by the dominance of population employed in agriculture.

The South-Western Development Region comprises the following five counties: Dolj, Gorj, Mehedinti, Olt and Valcea. The economic structure of the South-Western region, Oltenia, is provided by the natural potential and economic tradition in the region. The natural economic potential is given by the rich agricultural, hydropower and thermo-energetic resources. To these the basement of the region which is rich in coal, metal and non-metallic minerals, salt, oil, natural gas, mineral and forest vegetation are added. The tradition speaks of an economic region divided between agriculture and industry based on intensive exploitation of existing natural resources.

The Western Development Region is located in the western part of Romania, on the border with Hungary and Serbia, being made up of four counties (from the administrative and territorial point of view): Arad, Caras-Severin, Hunedoara and Timis. Starting from a set of

favourable circumstances and building on an impressive industrial tradition, in the post-communist period, the region registered a steady growth, higher to the Romanian average and has managed to attract a large volume of foreign investments, oriented to various sectors.

The North-Western Region (Northern Transylvania) is one of Romania's 8 development regions, and includes six counties: Bihor, Bistrita Nasaud, Cluj, Maramures, Satu Mare, Salaj, being one of the most picturesque regions in Romania. The region's economy is based mainly on agriculture, on manufacturing; where the prevailing traditional sectors that require intensive labour with low added value. Cheap labour, most often involved in activities of sub-contracting, is still the main element the region's competitiveness relies on, therefore production is particularly vulnerable in a global and free competition.

The Central Region is located in the centre of Romania, in the large curvature of the Carpathian Mountains. It occupies the fifth place of the regions concerning the surface and it includes the following counties: Alba, Brasov, Covasna, Harghita, Mures, Sibiu. Due to its geographical position, the region makes connections with six of the seven regions of development that are situated at approximately equal distance from its central area to the border crossing points. The economy has a visible industrial character, showed both by the high contribution of industry to GDP and the weight of employment in the secondary sector.

Bucharest and Ilfov Region of Development is made up of Bucharest and Ilfov County. Without taking into account the improved economic performance vis-à-vis other regions of Romania, Bucharest-Ilfov region has a rather low level compared to regions of the EU which includes a capital or a city, even taking into account the cities that are capitals of the new EU Member States. The region is highly urbanized, more than 90% of the population living in urban areas.

7. Competitiveness Elements of Romania's South-Eastern Region

The south-east region includes almost all forms of relief: the Danube valley, Baragan field, Dobrogea Plateau with Macinului Mountains, and the north-western regions include a part of the Carpathians and Subcarpathians. Moreover, the region is crossed by the Danube, and it also includes the Danube Delta and on the east side it has the entire Romanian seaside. However, most part of the relief is made up of plain, having a typical continental climate.

The most influenced by economic decline and the industrial restructuring are the steel and metallurgical industry, chemical industry and machine building industry. Unemployment generated by industrial restructuring registers a constantly growing level. Agriculture holds a significant share in the economy of the region, 40.4% of the region population being employed in this sector. The agricultural land has 65% of the total area of the region. The private sector holds the largest share of agricultural land and also produces the most part of the agricultural production. The South East Region holds top position regarding the surface of viniculture.

Despite the high agricultural potential, the capacity of agricultural products processing is low due to outdated technologies. The fragmentation of the arable area in small portions is another obstacle to agriculture development. The low economic potential of small farms as well as agricultural exploitation inefficient management determined the underdevelopment of the agricultural sector and agricultural products processing. In this region are represented almost all branches of industry: petrochemical industry, metallurgical, machine building, textile and clothing industry of construction materials, food industry.

The region is faced with a number of issues concerning the environment protection, due to both natural and anthrop factors: forest degradation, marine pollution, beach erosion, pollution caused by industrial substances or pesticides and chemical fertilizers.

One of the environmental issues that the Danube Delta faces is the river pollution. Moreover, clogging the Danube Delta secondary channels may cause in time flooding of a major part of surface land and destruction of the Delta ecosystem. The Black Sea coast is affected by coast erosion (Eforie area) and the pollution of beaches. In rural areas of Subcarpathians the sliding processes of deforested land are more numerous and periodic floods affect many villages in the valleys and the rivers Siret and Buzău.

South East Region covers the counties: Brăila, Buzău, Constanța, Galați, Tulcea, Vrancea, whose size can be represented graphically in figure 2.

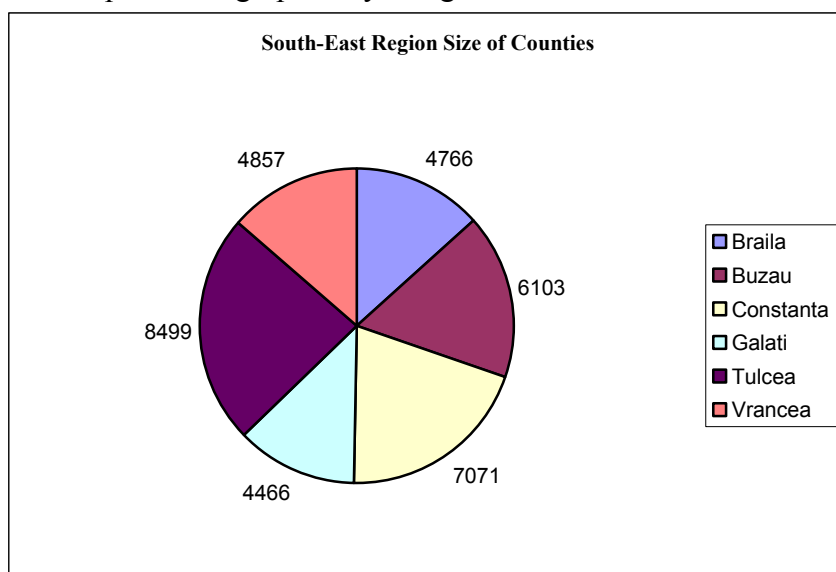


Figure 2 South-East Region Size of Counties

To determine which is the South East region in terms of regional competitiveness, it will calculate the index of regional competitiveness.

Formula calculation of regional competitiveness index I_C is a weighted average of the following three indicators: economic, social and technological. In turn, these indicators are calculated as a weighted average of selected variables within each group of interest. Weights used for each of the indicators are:

- Economic indicator I_E
 - E_1 – GDP per inhabitant 10
 - E_2 – GDP growth ratio 10
 - E_3 – Productivity 30
 - E_4 – Net exports 10
 - E_5 – Gross fixed capital formation (GFCF) reported at GDP 20
 - E_6 - Net income per inhabitant 20
- Social indicator I_S
 - S_1 - Dispersion of regional employment rates 30
 - S_2 - Employment (total) 40
 - S_3 - Employment - women 10
 - S_4 - The index average life expectancy 20
- Technological indicator I_T

T1 – Research- development expenditure as % of GDP 40
T2 - Population employed in sectors with high technology 30
T3 - Tertiary education with specialization in advanced research 30

Model calculation of the three indicators is:

$$I_E = (10E_1 + 10E_2 + 30E_3 + 10E_4 + 20E_5 + 20E_6)/100$$

$$I_S = (30S_1 + 40S_2 + 10S_3 + 20S_4)/100$$

$$I_T = (40T_1 + 30T_2 + 30t_3)/100$$

$$I_C = (40I_E + 30I_S + 30I_T)/100$$

Calculating each indicator in the regional statistical data reporting to the national average. Thus, the national average is 1.00, and regional indicators will vary around this value. Supraunitare mean values over the national average while the subunitare means the national average. Aggregated by weighting each indicator subindicatorilor with weights above.

The economic indicator by component - the reporting regions the national average

Table 1

Region	GDP per inhabitant	GDP growth ratio	Productivity	Net exports	Net income per inhabitant
North-Eastern	0,69	0,54	0,70	-0,02	0,89
South-Eastern	0,91	0,63	0,94	-0,07	0,94
South	0,84	0,90	0,83	-0,22	0,96
South-Western	0,83	0,63	1,21	0,18	0,99
Western	1,15	1,37	1,35	0,02	0,96
North- Western	0,97	0,63	0,96	-0,18	0,91
Central	1,04	0,93	1,03	-0,34	0,89
Bucharest -Ilfov	1,91	1,78	1,30	-1,08	1,31

Source: Statistical Yearbook of Romania 2007, own calculations

The social indicator by component - the reporting regions the national average

Table 2

Region	Dispersion of regional employment rates	Employment (total)	Employment - women	The index average life expectancy
North-Eastern	0,988	0,865	1,138	0,996
South-Eastern	0,989	1,059	0,896	0,993
South	0,958	0,997	0,990	0,996
South-Western	0,931	0,967	1,040	1,002
Western	0,975	1,018	0,969	0,988
North- Western	1,023	1,032	0,977	0,984
Central	1,059	1,074	0,914	1,011
Bucharest -Ilfov	1,098	0,970	1,038	1,048

Source: Statistical Yearbook of Romania 2007, own calculations

The technological indicator by component - the reporting regions the national average

Table 3

Region	R & D expenditure	Population employed in sectors with high technology	Tertiary education with specialization in advanced research
North-Eastern	0,385	0,605	1,260
South-Eastern	0,308	0,372	0,200

South	1,103	0,576	0,040
South-Western	0,308	0,645	0,060
Western	0,590	1,477	0,660
North- Western	0,386	0,791	1,980
Central	0,513	0,924	0,560
Bucharest -Ilfov	2,897	3,419	2,740

Source: Statistical Yearbook of Romania 2007, own calculations

The aggregate economic indicator

Table 4

Region	Economic indicator	Social indicator	Technological indicator
North-Eastern	0,64	0,96	0,71
South-Eastern	0,79	1,01	0,29
South	0,80	0,98	0,63
South-Western	0,91	0,97	0,33
Western	1,06	0,99	0,88
North- Western	0,81	1,01	0,99
Central	0,90	1,04	0,65
Bucharest -Ilfov	1,41	1,03	3,01

Source: own calculations

Regional competitiveness index (I_C)

Table 5

Region	I _E	Share	I _S	Share	I _T	Share	I _C
North-Eastern	0,64	0,4	0,96	0,3	0,71	0,3	0,76
South-Eastern	0,79	0,4	1,01	0,3	0,29	0,3	0,71
South	0,80	0,4	0,98	0,3	0,63	0,3	0,80
South-Western	0,91	0,4	0,97	0,3	0,33	0,3	0,75
Western	1,06	0,4	0,99	0,3	0,88	0,3	0,99
North- Western	0,81	0,4	1,01	0,3	0,99	0,3	0,92
Central	0,90	0,4	1,04	0,3	0,65	0,3	0,87
Bucharest -Ilfov	1,41	0,4	1,03	0,3	3,01	0,3	1,78

Source: own calculations

Hierarchy of development regions

Table 6

Region	Rating after competitiveness index	Rating after GDP per inhabitant
North-Eastern	6	8
South-Eastern	8	5
South	5	6
South-Western	7	7
Western	2	2
North- Western	3	4
Central	4	3
Bucharest -Ilfov	1	1

Of calculations is observed that the development region of Bucharest--Ilfov region is the only supraunitare value all indicators, the differences between this region and others are considerably higher and vary according to the indicators analyzed. Also observed that the social is relatively balanced in all regions with an inter-regional variation decreased while the technology to differentiate between regions in terms of development.

Analyzing Table 6 on the hierarchy of development regions is observed that the first is the development of Bucharest-Ilfov, followed by the Western as both criteria hierarchy: the index of competitiveness and the GDP per inhabitants. In the South-Eastern region, it is the GDP per inhabitant ranked 5, but the index of competitiveness in last place. This is because the technology has the lowest level of performance among all developing regions, although GDP per inhabitant place of work and productivity are high in this region and is a social indicator employment for total very good report the national average. Much of the growth in the South-Eastern are based on trade with the port area, but for a competitive development should invest more in research and development in tertiary education.

8. Conclusions

The EU should act in a particular manner showing solidarity and cohesion to the new members since their increase and development will bring in benefits to everyone. At the same time, the community policy re-formation is compulsory: not only for funds economizing but also for promoting better policies. When we make a decision regarding this kind of changes we should take into account the goals of the Lisbon agenda and also the need for innovation and increase:

- ✚ concerning the common agricultural policy, the continuous change is necessary thus less support should be granted to prices and quantities and more to the quality. It is also necessary to elaborate a rural economic development policy which will support and not prevent the massive work force migration from agricultural sector to the Central and Eastern Europe. However this aspect implies the opportunity emergence for the developing countries to take an active part in the agricultural products trade.
- ✚ regarding the structural expenses, certain measures are necessary adapted to the needs and priorities of the new members as well as the regional integration of the Central and Eastern Europe. Major investments will be necessary both in the environment and infrastructure as well as in human resources and education.

An innovative method should be identified of using the EU budget to support other policies like research and development. Concerning the budget income share, a more impartial, transparent and stable system is required. Over the entire continent, the EU should provide the result people expect, helping the mature economies to be innovative and the less mature ones to complete their change. The world doesn't wait for us!

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Installing, Configuring and Implementing an SMF in Joomla

Maria Cristina ENACHE

mpodoleanu@ugal.ro

University "Dunarea de Jos" of Galati

Abstract

This paper's goal is to show how an asynchronous communication component which can also be used in teaching activities was installed, configured and implemented on the website of the Department of Accounting and Economic Informatics of the Economics Faculty within the Dunarea de Jos University in Galati. This component is known under the name of forum or discussion board.

Keywords: Web 2.0, forum, CMS

JEL Code:

1. Introduction

Web 2.0 names new ways of considering and employing the organizational capabilities of WEB. According to these, the content and information are not offered to the visitors only by the media, governments and private companies anymore, but also by private persons, linked between each other by informal networks based on Internet and which actively contribute and take part in the offering and spreading of information in the entire world by the means of web. Typical examples for this new tendency are the so-called wiki, weblogs (or, the simplified form, blogs), portals and the image, music, movie/video and software exchange markets in the Internet, like Flickr, YouTube and the File sharing sites.

The media in the whole world has reacted intensely to these new points of view and it was suspected that they would have direct social and economic effects. The most widely used web 2.0 technologies in supporting the teaching process and building teaching materials, evaluating and analysing the evolution of the students, building informing and forming presentations, time planning, building the timetable and the activities calendar, developing collaboration projects of which many are student-oriented are: blogs, wikies, RSS, bookmark collaboration bookmark systems, podcasting.

2. The discussion board

The discussion board is one of the asynchronous communication means, in which any member of the group can open certain discussion topics, address questions and has the possibility of receiving several answers from different group users. The questions and answers are visible to any user and the threads are easy to follow. In the learning process this service is widely used, because the teacher can explain a problem to a great number of students on a topic chosen by one of them. Besides, here is the place to exchange opinions on the entire educational process, there can be made considerations concerning other similar institutions in the country or abroad, all this for the common goal of improving the educational process. So, discussion boards are

common space where people can communicate asynchronously. Someone posts a message, which is added to a list of messages on a certain topic, called "thread". The message can start with a dialogue or can be added to a dialogue. Threads on forums are usually archived and archives usually become useful information resources. The discussion board appears as a virtual space for a great number of users interested in a certain topic, considering their diversity. It works asynchronously, like a public collective mailbox in which every user is free to see the incoming messages and post an answer. In certain situations, a person, called "moderator", can take responsibility for leading the debates and eliminating messages that do not comply with the subject of the forum. The "news" section is read by the users with a text editor program, which has the possibility to search and select the ones they are interested in.

Although discussion boards exist since the Internet was born, their utility must not be ignored. They represent a source for building online communities. Discussion boards offer a way to archive knowledge shared by an entire community. Discussion boards are used for different types of conversations. They can be used to ask questions and get answers, to express opinions and feelings or to show a talent or a project.

Discussion boards can also have funny features. Avatars, for an instance, are graphical icons representing a real person in a virtual world. As discussion boards provide a sequential discussion, archive the information and can be accessed anytime and anywhere a computer and an internet connection are available, they can be easy to use instruments. Also known as "newsgroups", discussion boards allow users to exchange any kind of information on different topics.

Contrary to the e-mail principle, messages on discussion boards do not go directly into the users' mailboxes, but are stored on servers accessible from the Internet. In these conditions, any interested user can connect to the server and consult the messages and can also take part in these electronic conferences by transmitting and publishing messages. Thus, there can be brought into attention the *public character* of this communication form. In a discussion board communication is asynchronous, so there is a certain amount of time between posting a message and getting the feedback. Not all persons implied are connected simultaneously and the messages are addressed to all the potential members of the discussion board. Certain groups are moderated, that is to say all the transmitted messages first reach a moderator, who has to approve their appearance on the discussion board. It is more and more difficult for an Internet communication beginner to see the difference between classic e-mail and a forum, because these informational resources are based on the same principles: *identifying the sender*, *identifying the subject* of the message and the field of interest; *the precise identification of the information exchange* (individuals for e-mail and site, message, individuals for discussion boards); *definition of the message content*.

As far as the communication exchange types within a discussion board, there can be distinguished the following three main types of activities and communication relationships:

- *the display unit*;
- *question /answer*;
- *debates*.

Simple Machines Forum - SMF is a free software package which allows one to create his/hers own community. SMF is PHP coded and uses a MySQL database. SMF is a next generation discussion board – type software and it is completely free and will remain free. It is very easy to install, even for beginners. Available on the web since 2004 and not fortuitously called SMF (Simple Machines Forum), this open source software is built to offer users an excellent

community starting and managing platform. SMF can be configured in about 40 languages and has an intuitive, WYSIWYG-equipped interface.

In order to install an SFM discussion board, the following resources must be provided:

- ✓ Operating system;
- ✓ Web server compliant with PHP and MySQL (3.23.28 and later versions), PostgreSQL (7.4.10 and later versions) or SQLite (1.x and later versions);
- ✓ Browser: Microsoft Internet Explorer (5.0 at least), Opera (7.0 at least), Netscape (6.0 at least), Mozilla Firefox (2.0 at least).

SMF can be downloaded from the following source: <http://download.simplerachines.org>.

The downloaded archive contains all the installation files. It must be extracted in a folder named using the pattern *forum_name* and placed in the htdocs root folder on the web server. Then the database must be created. If the "local machine installation" choice is made, with a Xampp or Nushpere server, the database must be placed in <http://localhost/phpmyadmin>.

In this article we shall present the implementation of such a discussion board on a server called host28.net and its synchronization with a content-management system which deals with the documents belonging to the Department of Accounting and Economic Informatics.

In the control panel provided when creating an account there are a file manager and a database administration tool, the local version of phpmyadmin. There are 4 steps to consider when installing a discussion board.

Step 1 – file upload or transfer

PHP files must be uploaded in the [htdocs] folder of the user account. This can be done with an FTP client, using the user, password and server. After completing this, the [htdocs] folder must be checked to see if the files are in it.

Step 2 – database building

99% of the scripts require MySql databases. The database admin tool will be used to create a MySQL database. The name must be remembered, as it will be necessary for the next step.

Step 3 – finding the installation page

Already having the uploaded files and the database, the next step is to use a web browser in order to find the install page for the script. Usually it appears when the site address is typed. It is possible that one would have to search for it. For example:

- <http://yourwebsite.com/install.php>,
- <http://yourwebsite.com/install>,
- <http://yourwebsite.com/installation>.

If the install page cannot be found you must check if the files in the [htdocs] folder were correctly uploaded. This can be done with the File Manager in the Control Panel.

Step 4 – Finishing the installation

Most of the questions the script asks during the installation process are accessible even to lay users.

In order to gain access to the database, the following things must be known:

- MySQL database name: (can be found using the [Database Administrator] in Control Panel)
- MySQL password: the same with the Control Panel password
- MySQL user name: id provided by host28.net
- MySQL host name: sql104.host28.net.

After finishing the installation, the access for visualising the SMF discussion board will be provided via the browser, typing http://host/discussion-board_name. For the proposed case study, the address is <http://cie.host28.net/forum>. Then the administrator can create the desired discussions and threads using the Control Panel.



Fig. 1 - Department of Accounting and Economic Informatics website

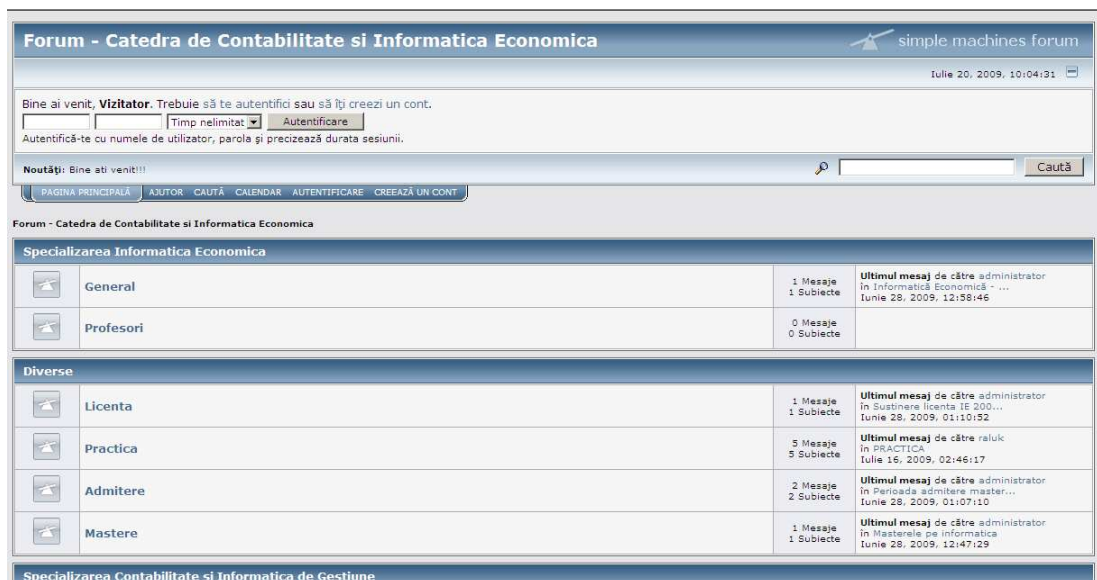


Fig. 2 - Department of Accounting and Economic Informatics Discussion boards

Basic settings

Now we shall remind some information required during the installation and configuration process.

- ✓ *The Discussion Board name*: this is the name which will appear upon installation completion. The default is “My Community”, but it can be modified;
- ✓ *The Discussion Board URL*: in most cases, this is completed by default by the installation wizard, which automatically detects the discussion board address;

- ✓ *Gzip compressed output*: this function does not correctly run on all servers, but helps saving bandwidth by compressing output pages; this option is active by default;
- ✓ *Database sessions recording*: this option is active by default in order to use the database for sessions instead of files; thus, the sessions will be dependent;
- ✓ *UTF-8 character set*: feature which allows the database and data to use the UTF-8 international character set, which is very useful when working with several languages using different character sets;
- ✓ *Allow statistics*: when active, this option will allow SMF to visit the site once a month in order to collect basic statistics.

MySQL Server Settings:

- ✓ *MySQL user*: username for connecting to the MySQL database;
- ✓ *MySQL user password*: password required when connecting to the MySQL database;
- ✓ *MySQL database name*: name of the database which is to be used by SMF in order to store data;
- ✓ *MySQL table prefix*: the default *smf_* value must be kept.

Once completed these fields, click the *Execute* button and complete the next step. The interface will create a new administrator account during the stage called: ***Create your account***:

- ✓ *Username*: administrator username required for authentication;
- ✓ *Password*: necessary in order to authenticate on the server; must be typed twice for checking;
- ✓ *E-mail*: must be valid;
- ✓ *MySQL database password*: required for security reasons.

Before visualising the discussion board it is very important to erase the *install.php* file. The installation program provides a checkbox in order to automate this task if checked. If this file is not erased, there will appear a warning that must be manually erased.

3. Implementing and configuring in a Joomla CMS

Next, we will show how to implement the asynchronous communication component, that is to say the discussion board, within a content management system – CMS, respectively the Joomla, in order to synchronize the users created in CMS with those on the SMF discussion board.

The Implementation of the SMF discussion board in the Joomla CMS will be made with the help of a bridge, which will log in and out and synchronize the 2 applications.

For the department's site and the implemented discussion board we used the 1.1.3 version of the *Jfusion* bridge. This software package can be downloaded from www.jfusion.org.

JFusion uses a master/slave system for managing the users on different software platforms. That is to say that one of the software programs has a master – type control over the users and the Fusion slave-type plug-in tracks user information, which can be found in the master plug-in. Thus, we will set Joomla as master and SMF as slave. Joomla uses plug-ins for the authentication procedures, which makes the connection routine easier to modify. All user records and password changes must be performed by the means of the master software. JFusion will update the slave software with user details from the users table from the master software. The JFusion authentication plug-in gets the username/password from the master software database and checks if the completed password matches with the stored one. If the

passwords match, JFusion checks if the user exists in all databases, thus completing user synchronization. JFusion makes no modifications on the integrated software. This means that the integrated software, as well as Joomla can be updated without reinstalling or reconfiguring JFusion. That is why it is no longer necessary to waste time reconfiguring the bridge. Since no modifications are made on the integrated software, the login way and behaviour are not changed either.

Among the *advantages* of using the JFusion bridge there are: the discussion board software can be installed on the same server as Joomla, the provided wizard making it very easy to install and configure, only one table is used for authentication, support for several languages, easy uninstalling (in the Plugin Manager menu from the back end there is an option to uninstall the JFusion plug-in). The resources necessary to install the JFusion component are: Joomla, PHP (version 5.0 and above) and a MySQL database (version 4.1.x and above).

Installing and configuring the JFusion component.

In the administration section of Joomla, access the *Extensions* menu, like in the figure above, and pick up the *Install/Uninstall* option. In the *Install* menu, load the *jfusion_1.1.3.zip* file.

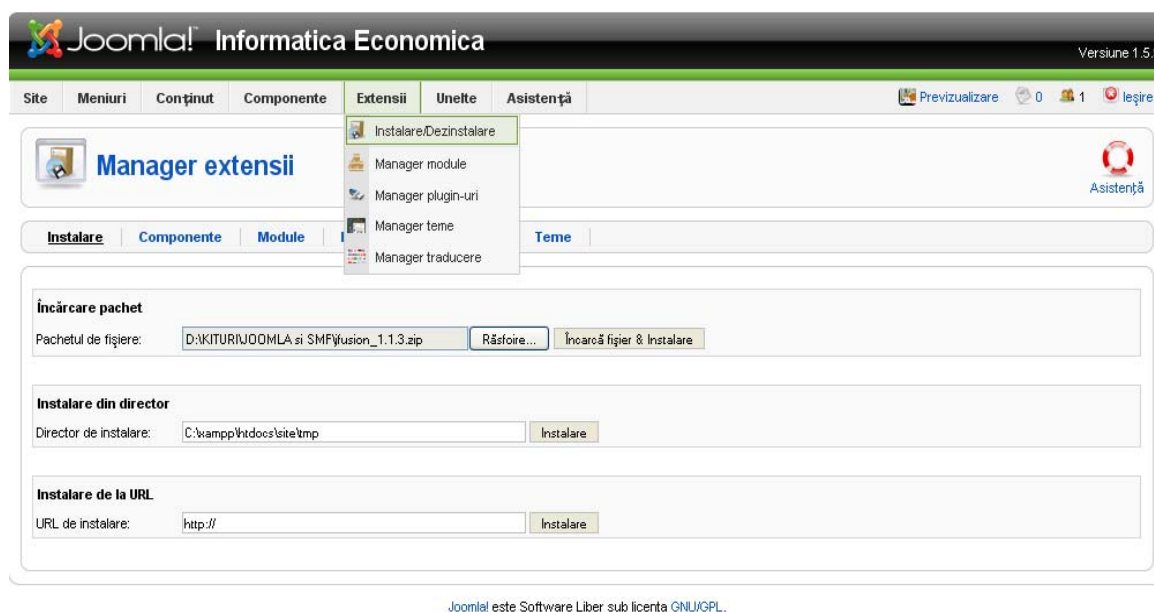


Fig. 3 - Stage The loading stage of JFusion component in CMS

After loading the file, all the components of the JFusion package appear installed. The JFusion control panel looks like the one in the next image and contains the following menu:

- ✓ Joomla Options;
- ✓ Configuration;
- ✓ Plugin Manager;
- ✓ New Usersync;
- ✓ Usersync History;
- ✓ Login Checker;
- ✓ Versions; Help.

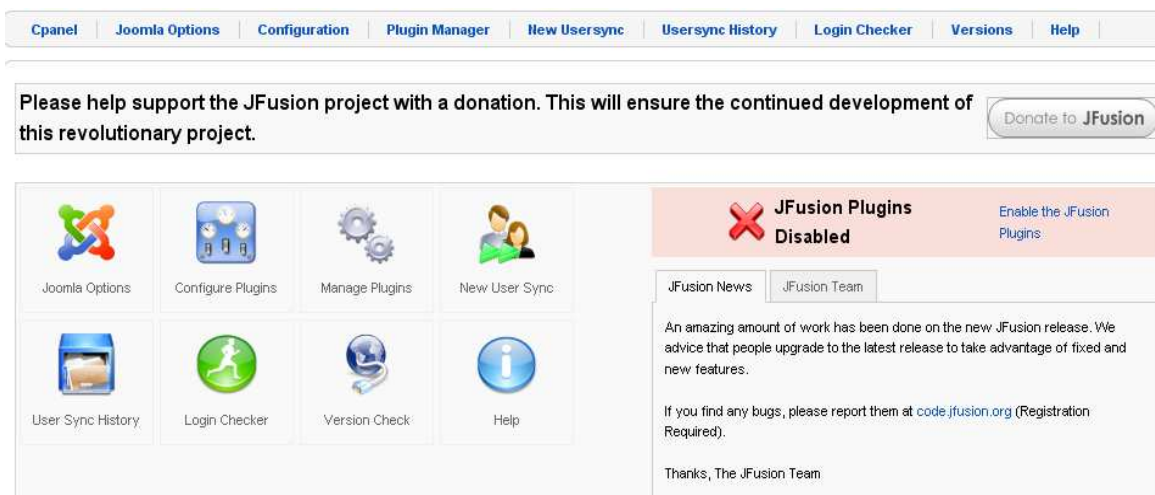


Fig. 4 - Control Panel

a. **Joomla Options** – there are several options here. For an instance:

Plugin General Details:

- ✓ *Description:* “Current Joomla Site” is displayed by default, but it can be modified;
- ✓ *Full URL to Software:* URL address of the site created in Joomla.

Login Options:

- ✓ *Login Identifier:* select what you want users to type when connecting to Joomla; the options are: username, e-mail or username/e-mail;
- ✓ *Username Filter:* for a standard username filtering it must be kept the `joomla_int` setting.

Users Options:

- ✓ *Usergroup Management:* this setting helps managing user groups; JFusion can handle the user groups in 2 ways: *simple* (groups are established only for newly created users and then they run completely independent from other software) and *advanced*. In the *Usergroup Mode* section, the option *simple* will be kept. The Default Usergroup option will be: Public Frontend.
- ✓ *Auto Register Users:* this setting will be used when JFusion runs with other authentication plug-ins, like Gmail. If users are to login in Joomla using these plug-ins, the option will be “Yes”; otherwise set it to “No”.
- ✓ *Auto Update Activation:* similar to the above setting. If set to “Yes”, any modifications brought to the activation of the user account in the master software will be copied in Joomla. If set to “No”, activation of the user account in the master software will not be copied in Joomla.
- ✓ *Auto Update Bans:* "Yes" would allow a banned user in the master software, thus banning him in Joomla. “No” means that the username is not banned in Joomla.
- ✓ *Auto Update Email:* any modifications in the e-mail settings will be updated in Joomla (“Yes”) or not (“No”).

User Options

JFusion has two modes to handle usergroups. 1) Simple: usergroups are only set for newly created users, after that usergroups are completely independent from other softwares. 2) Advanced: For JFusion slave plugins, you have the options to link usergroups to the JFusion master plugin. If the usergroup is changed in the JFusion master, the user will automatically be updated to its associated slave usergroup.

Usergroup Management Usergroup Mode:

Default Usergroup:

You want users authenticated by non-jfusion_auth plugins to be automatically created. Leave this option to no, unless you are for instance using a gmail authentication plugin.

Auto Register Users:

When the user details have changed in the JFusion master plugin, should these details be automatically updated in this software?

Auto Update Activation:

Auto Update Bans:


Auto Update Email:

[Top](#)

Fig. 5 - Joomla Options - User Options

b. Configuration

During the configuration stage, it must be established which of the software programs, Joomla or SMF, is the master and which is the slave. This is probably the most important setting, which will provide a smooth operation of the two components. This means that the software importing the users will be slave, respectively the SMF, and the Joomla will be master. Before configuring the JFusion plug-in, the window looks like that:

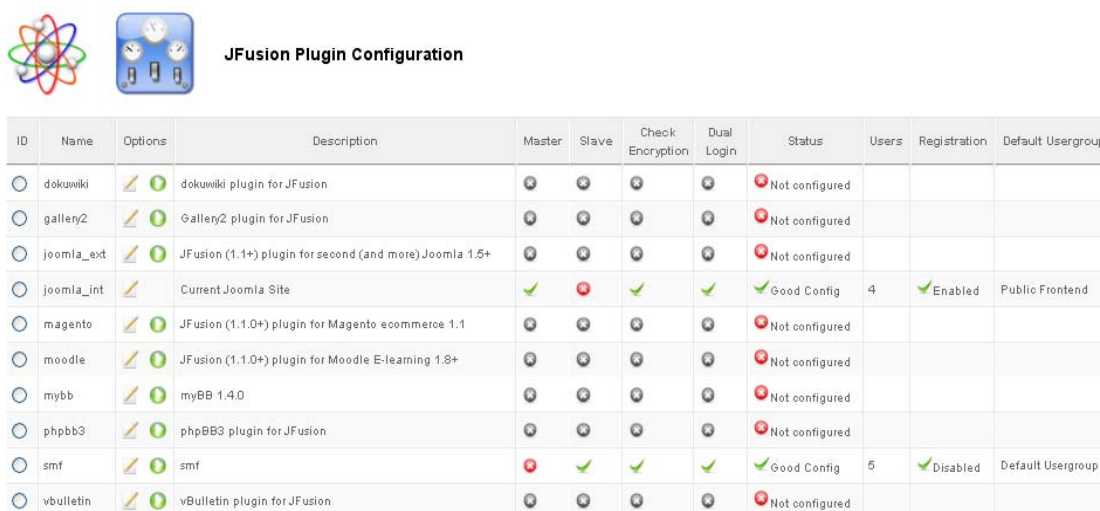


JFusion Plugin Configuration

ID	Name	Options	Description	Master	Slave	Check Encryption	Dual Login	Status	Users	Registration	Default Usergroup
<input type="radio"/>	dokuwiki		dokuwiki plugin for JFusion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Not configured			
<input type="radio"/>	gallery2		Gallery2 plugin for JFusion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Not configured			
<input type="radio"/>	joomla_ext		JFusion (1.1+) plugin for second (and more) Joomla 1.5+	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Not configured			
<input type="radio"/>	joomla_int		Current Joomla Site	Not configured	Not configured	Not configured	Not configured	Good Config	4	Enabled	Registered
<input type="radio"/>	magento		JFusion (1.1.0+) plugin for Magento ecommerce 1.1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Not configured			
<input type="radio"/>	moodle		JFusion (1.1.0+) plugin for Moodle E-learning 1.8+	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Not configured			
<input type="radio"/>	mybb		myBB 1.4.0	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Not configured			
<input type="radio"/>	phpbb3		phpBB3 plugin for JFusion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Not configured			
<input type="radio"/>	smf		SMF plugin for JFusion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Not configured			
<input type="radio"/>	vbulletin		vBulletin plugin for JFusion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Not configured			

Fig. 6 - JFusion Plugin Configuration

In the joomla_int, which is the plug-in for the current site, the *Edit plugin* option must be clicked. Thus, the *joomla_int JFusion Plugin Editor* configuration stage appears, which has all the options completed by default. This stage is identical to the settings made during the first stage, in the Joomla Options menu. Next, Joomla will be set as the Master, and finally the configuration will look like that:



ID	Name	Options	Description	Master	Slave	Check Encryption	Dual Login	Status	Users	Registration	Default Usergroup
<input type="radio"/>	dokuwiki		dokuwiki plugin for JFusion	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not configured			
<input type="radio"/>	gallery2		Gallery2 plugin for JFusion	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not configured			
<input type="radio"/>	joomla_ext		JFusion (1.1+) plugin for second (and more) Joomla 1.5+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not configured			
<input type="radio"/>	joomla_int		Current Joomla Site	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Good Config	4	Enabled	Public Frontend
<input type="radio"/>	magento		JFusion (1.1.0+) plugin for Magento ecommerce 1.1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not configured			
<input type="radio"/>	moodle		JFusion (1.1.0+) plugin for Moodle E-learning 1.8+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not configured			
<input type="radio"/>	mybb		myBB 1.4.0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not configured			
<input type="radio"/>	phpbb3		phpBB3 plugin for JFusion	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not configured			
<input type="radio"/>	smf		smf	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Good Config	5	Disabled	Default Usergroup
<input type="radio"/>	vbulletin		vBulletin plugin for JFusion	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not configured			

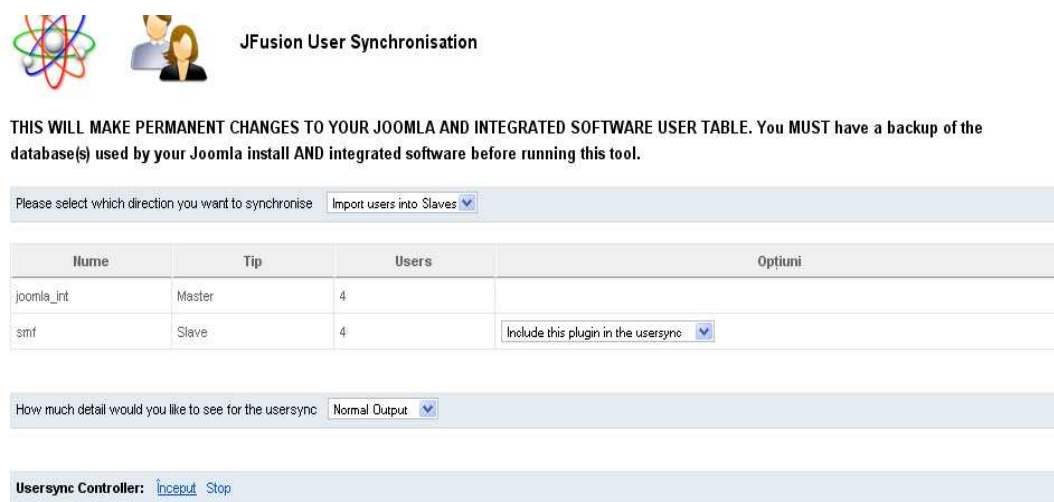
Fig. 7 - Set Joomla as master software

The *Configure Plugin* option will bring up the *smf JFusion Setup Wizard*. As the extraction of the necessary data for this setting must be made from the config.php file, in order not to make any mistakes, the wizard performs this automatically, the user completing only the path to the software that JFusion is to integrate, in this case: <http://cie.host28.net/forum>. Or it could also be C:\xampp\htdocs\forum. Then, if the file is found, the wizard displays it. After saving the options completed by default by the wizard, the SMF is set as the slave software.

c. New Usersync

Before any synchronization, Joomla must be set as the master and the SMF as the slave, because the slave software must be implemented in the master software.

In the first window, the synchronization direction must be selected, that is to say *Import users into Master*, which implies copying the users in the slave software into the master software, or *Import users into Slaves*, which implies copying the users in the master software into the slave software. Because we wanted to synchronize the users on the department's site with those on the forum, the synchronization direction will be: *Import users into Slaves*.



THIS WILL MAKE PERMANENT CHANGES TO YOUR JOOMLA AND INTEGRATED SOFTWARE USER TABLE. You MUST have a backup of the database(s) used by your Joomla install AND integrated software before running this tool.

Please select which direction you want to synchronise:

Name	Tip	Users	Options
joomla_int	Master	4	
smf	Slave	4	<input type="text" value="Include this plugin in the usersync"/>

How much detail would you like to see for the usersync:

Usersync Controller:

Fig. 8 - JFusion User Synchronisation

For the SMF software program, which in this case is employed as a slave software, there are two options: *Exclude this plugin from the usersync* and *Include this plugin in the usersync*. The option to choose is *Include this plugin in the usersync*

Depending on how many details we want displayed after the synchronization, *Normal Output* or *Extended Output* can be chosen. Then click on *Start*, and the user synchronization will be finished in a few seconds.

d. Usersync History – keeps a record of the synchronization status, that is to say details regarding the number of synchronized users, time taken by this operation, etc.

e. Login Checker

In order to verify if the user login operation is correct the Login Checker routine is used. This instrument can be used to troubleshoot login problems when JFusion login does not run correctly. The last step to do after configuring JFusion is to activate the plug-in. Sometimes plug-ins are not activated using the above method. In the event this happens, they must be manually activated: in the back end section, in the Plugin Manager menu the "Authentication-Joomla" and "User-Joomla" options are set to inactive, then, the "Authentication-JFusion" and "User-JFusion" options are set to active.

Conclusions:

Like we stated in the beginning of this article, the purpose of implementing an asynchronous communication component (the SMF discussion board) in a stand-alone site was achieved. In this article we are presented the result of this implementation process, the stages and a series of basic configuration steps. The created forum can serve as support for a future development.

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Elaboration of Marketing Strategies and Programs Through the Integration of the Sustainable Development's Objectives

Adrian MICU

mkdradrianmicu@yahoo.com

Angela-Eliza MICU

angelaelizamicu@yahoo.com

Nicoleta CRISTACHE

nicoleta.cristache@ugal.ro

Sofia TOTOLICI

sofia_totolici@ugal.ro

Dunarea de Jos University of Galati

Abstract

Simultaneously with the manifestation of the availability of the company/organization to include in its activities and politics objectives of sustainable development and social responsibility, concrete marketing steps are required, in form of a number of activities that contribute effectively to achieving such objectives. Therefore, series of steps of the complex process of *reflection* and *strategic planning* should be taken in a logical and consistent manner, thus these steps that can adapt and "tone" according to the specific activities that the company operates.

Keywords: marketing, integration, strategic planning

A **first stage** involves *sensitivity analysis of the market or of its segments that refer to "ideas" for sustainable development*. The main questions that must be answered at this stage are:

- ✚ How will approaches and concrete actions of the enterprise for sustainable development and social responsibility be received?
- ✚ What will be the starting point in these approaches?
- ✚ What and how will it be communicated?
- ✚ What is the level of interest and the foreseen degree of involvement of the intended audience?

The formulation of such questions and answers will create a *bond* with the customer universe, which is studied from two points of view: **the citizen** and **the buyer**.

In the sphere of consumer goods, research shows that in the markets there is some "potential environmental sensitivity" or, more generally, societal, which manifests itself at many levels. Thus, a recent study (2003/2004)⁵⁵, shows that about 50% of buyers are "insensitive" (have never thought in specific terms of sustainable development), 30% are "sensitive inactive" (have thought of it, but never brought sustainable development in their selection criteria) and 20% are "sensitive active" (actually choose on environmental and societal basis). From the "sensitive active" type, between 40% and 50% (depending on the characteristics of segments

⁵⁵ www.ethicity.net

and/or goods) are ready to pay more to buy tangible products or services that meet their societal expectations of environmental, ethical, moral, etc.. The same researches show that the number of consumers that are actively sensitive is growing, and, based on the typology used by Ethicity, the number of sensitive individuals, who are ready to pay more and engage in group actions, increased from 10% in 2003 to over 15% in 2004.⁵⁶

The **second phase** involves *integrating in the diagnostic analysis of the strengths and weaknesses in sustainable development*. This analysis will imply all stakeholders, meaning staff, customers and partners throughout the whole area which interferes with the work process and that may be associated with this “exercise”, during which everyone will discover the real involvement desired by the organization in relation to the social, environmental, ethical, moral aspects, and the like.

Diagnosis, internal and external, can be achieved through a SWOT analysis, in which multiple elements and aspects are highlighted, elements that are current issues in the life of the organization. For example, here is a brief SWOT analysis of a company that has little environmental threatening activities, but encounters some “problems” with recycling programs. The analysis that we suggest has two sections, namely “current situation” for which we aim strengths and weaknesses and “outlook”, for which we focus attention on the opportunities and constraints or threats.

Table no.1

**A diagnosis of sustainable development at company level
 (Hypothetical case)**

Current situation		Outlook	
Strengths	Weaknesses	Opportunities	Threats
Little environmental threatening production	Poor recycling of products after use	Recent emergence of new technologies for recycling	Prohibition of the use of compounds present within the structure of products in the foreseeable future
Seriousness and competence, customer loyalty	Lack of communication of social responsibility to clients	The existence of suppliers willing to join the organization’s sustainable development efforts	Suspicious that the commitment to sustainable development of the main provider of the enterprise is not genuine
A good fund of human resources	Recent shutdown of one activity and letting all personnel that was involved in it go	Highly motivated staff (concerned) on environmental protection	The main competitor is very active in communicating social responsibility and is the leader in one of the most profitable segments

Emphasizing some opportunities and restrictions is likely to encourage the enterprise to engage more strongly in sustainable development issues, each having a definite correlation with

⁵⁶ A typology of consumers with ethical responsibility, performed on representative samples, consisting of persons aged from 15 to 70 years, from France, in 2003 and 2004. (www.ethicity.net).

marketing activity. Thus, at the strategic level, for example, is necessary to consider certain components of a product, that are authorized on a home market, but not allowed in foreign markets, or vice versa. For example, in Romania are banned certain imports of poultry meat, because the antibiotics, animal feed and growth factors used in poultry nutrition are not accepted. Also, pork cannot be exported to the EU market because fever vaccine is used.

The ones that are assigned to the marketing activity within the organization have to exploit all the information from outside and from the inside to determine how they will be able to design and present an offer adapted to the sustainable development criteria in large distribution networks which try to find such suppliers *upstream*. They will also aim sensitivity to social responsibility and interest in communicating it to the operating segments of the main competitor, which shows that a marketing strategy which has incorporated the objectives of sustainable development can be offensive.

Diagnosis of sustainable development can be achieved both by analyzing elements downstream and upstream the enterprise, the complete and effective analysis case is the one that takes into account both issues, resulting in a closed circuit as shown in Figure no. ... 1.

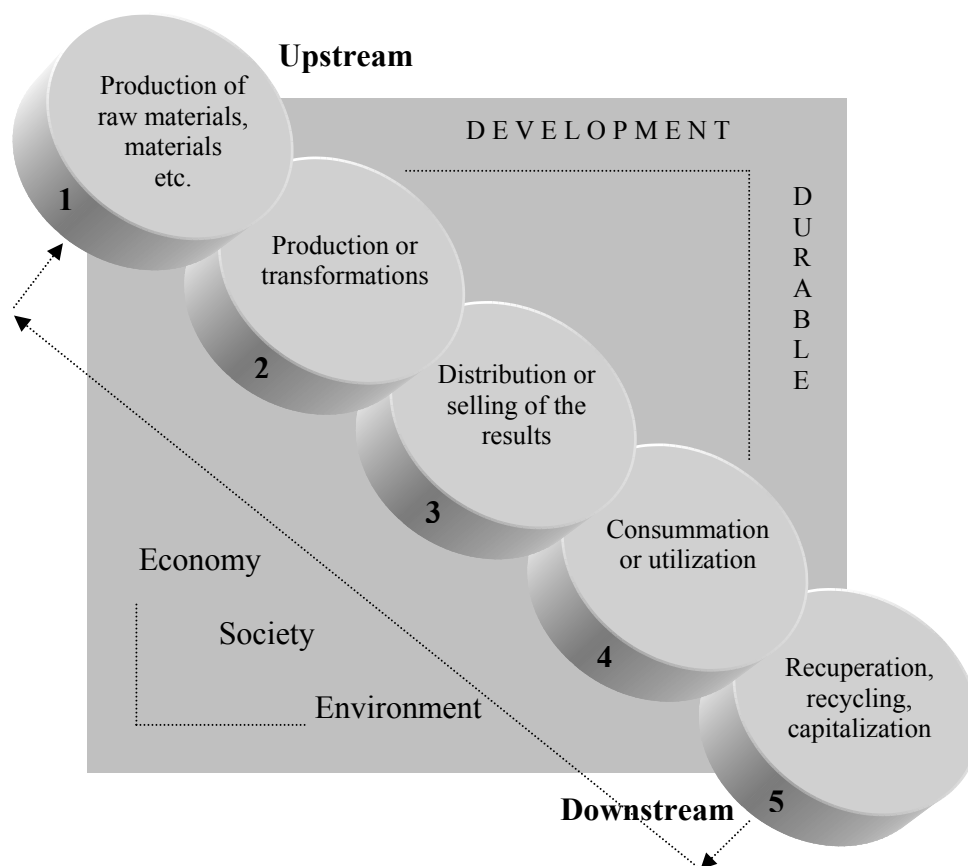


Figure 1 - Diagnostic levels for sustainable development in an organization

Each of the five levels related to entry market and exit market attract and transform in a special form resources, and links between them shown schematically in Figure 1, cause a series of conditions for products, stock ups on some levels, transportation problems, etc.. All of these actions are energy and fuels consumers; contribute to pollution, creating the greenhouse effect and the like.

This *closed circuit* analysis can really help in terms of human resources, which includes motivation of staff to understand everything that means consumption of resources at every stage and in every place, thus contributing to creating responsible or committed products.

The **third stage** involves *clearly defining marketing objectives associated with a positive impact in terms of sustainable development*. Basically, for the marketing specialists in the Romanian companies, this is the newest exercise, the most unusual approach, given that the previous practical experience and training in sustainable development through the education system at all levels are completely missing.

In a recent research conducted in the academic environment in northern France, entitled "Diagnosis of socially responsible decision takers training" and aimed to identify how social responsibility is present in the programs of study, had reached the following conclusions: social responsibility is very poorly integrated into academic programs in a manner most unequal and often optional and applied research is insufficiently developed; Higher education must assume social responsibility at the height of competence that it has⁵⁷

In this phase, throughout the desired objectives, it is necessary to seek a better positioning of the company and its bid using *sustainable development and social responsibility* arguments presented explicitly or implicitly in the steps of communicating with target audiences, and society as a whole.

Resuming previously hypothetical example, we suppose that the firm has identified five aspects of sustainability: reducing the amount of waste, recyclability of waste, reducing carbon dioxide emissions, creating jobs and strengthening social cohesion. Its strategy and marketing program, which are being finalized, are structured on three categories of objectives: attracting and winning new customers, attracting and stabilizing the range of relative non-buyers, devoting segments among which a great sensitivity in relation with the environment is found.

Based on these objectives and having in view their relationship with the five "zones" of progress previously identified, it can be built a matrix model, specifying the type of actions that are able to "cover", through their effects, one or more items from the matrix.

Table no.2

Three objectives and the strategic actions related

Objectives		Actions			
		1	2	3	4
A	Attracting and winning new customers.	Integrating in the marketing program of actions to significantly contribute to environmental protection.	Effective management of new culturally and socially customer profiles, aiming at developing social cohesion.		
B	Attracting and stabilizing the range of relative non-buyers.	New products or equipment to respond to more demanding environmental quality standards, compared to	Development of a new <i>know how</i> for a part of the employees, so		

⁵⁷ Touboul, Sylvie, L'enseignement supérieur n'oublierait-il pas sa responsabilité sociale?, Novethic.fr, 30th august 2006. The survey was conducted by the Centre de Recherche en Ethique Economique, Université catholique de Lille and ended in June 2006

		previously made goods. It seeks an impact in terms of progress in four areas: energy, quantity of waste, recyclability, greenhouse effect.	that it can provide <i>premium brand</i> services.		
C	Devoting a segment with high environment sensibility.	The introduction of electronic communication instead of the classic paper.	Distribution to selling sites by using non-polluting means.	Waiver of suppliers that produce in discordance with the principles of Sustainable Development.	

These actions can be placed in a matrix, depending on their compatibility with the areas of intersection and depending on the effects they generate.

Table no.3

Matrix of "coverings" throughout the effects of sustainable development objectives

Marketing Objectives		Aspects of sustainable development identified at organization level				
		Reducing the amount of waste	Recycling waste	Reducing carbon dioxide emissions	Creating new jobs	Strengthening social cohesion
A	Attracting and winning new customers.	A 1	*	A 1	A 2	
B	Attracting and stabilizing the range of relative non-buyers.	B 1			*	*
C	Devoting a segment with high environment sensibility.	C 1		C 2	*	*

Note: The matrix is somehow restrictive, because few activities have been considered, this being one hypothetical example.

The **fourth step** seeks to *develop and implement action programs* aimed at achieving the above objectives in sustainable development. As can be seen, it is scientifically followed a linking of actions on the path: strategy, marketing mix, marketing plan, mix *balancing* in the plan, implementation, monitoring and evaluation. All these highly complex steps, both at conceptual and operational level, need joint efforts of all professionals involved in marketing – communication – sales route, especially in terms of creativity and, quite possibly, lifetime learning.

The **fifth step** concerns *the effective integration of sustainable development goals and social responsibility in marketing strategy*. From it we can draw the conclusion that all steps presented during the four previous stages did not materialize in parallel strategic activities, devoted exclusively to making the mentioned concepts become reality, but in *strategic*

integration actions designed to efficiently place the business in the human, social and environment sphere, aspects that interest the society more and more.

Integrative actions will target in a specific manner all the variables of marketing mix, aiming at customer-level **visibility** of everything that is being done to improve the performance of the social and environmental.

Maintaining credibility of the company implies that the announced impact in the sustainable development plan should not only be at a declarative level or by certification, but it must be primarily felt, tangible, through valuing of all “innovative actions”, that the beneficiaries themselves can assess and measure.

Table no.4

**A possible model of strategic integration and social objectives
 of environmental protection**

Marketing mix variable	
The Product	The Price
Applying those manufacturing processes which respect people and the environment; Capacity building for recycling products that reached the "end of the road"; Choosing those suppliers or those supply subsidiaries according to the principles of social responsibility.	Integration of social and environmental protection efforts in costs and, thereby, justify any increase of price; Reduction of prices as a result of efforts made by consumers for waste recovery and other <i>responsible behaviors</i> ;
Distribution	Marketing Communication
Selection of efficient vendors in the field of social responsibility; Spreading in the distribution network of the quality guarantees (ISO, HACCP etc.); Give incentives to those customers who engage in the recovery of waste materials.	Spreading booklets that explain the need for responsible use of all equipment and resources; Systematic and regular communication of all improvements and firm’s efforts in the sustainable development plan.

Overall effectiveness of the marketing program can be judged by developing a “balance forward” in which will be synthetically described four dimensions⁵⁸: the expected effects in terms of marketing, constraints and cost of transformation, desired social and environmental impact, overall assessment.

On the first dimension, the *expected effects in terms of marketing*, will be evaluated in terms of market share, number of customers, turnover, costs for “managing” and maintaining customers, customer satisfaction etc..

The second dimension, *constraints and the cost of transformation*, concerns the additional costs for specific studies and “overseeing”, costs of research and development, those for cross-design, communication costs, those for training and also the ones for implementing different actions.

The third dimension refers to energy consumption, waste production, the creation of jobs, social cohesion, etc.

⁵⁸ Loupe. A., op. cit, 2006, p.25.

Finally, global assessment refers to the rate and recovery time of the investments, to a multi-criteria summary based on the performance index of the environmental protection field, to a summary on social performance (also multi-criteria) and to a present and future development of *capital client* (customer relationship management). In addition to all these approaches and strategic step it is absolutely necessary to have a plan for valuing efforts and performances, which will provide a comprehensive picture of elaborate and coherent actions, properly articulated and applied, and also highly valued in terms of performance. This plan will contain a digital description of the measures employed (*efforts*) and a quantitative expression of progress (*performance*) for sustainable development. Such an assessment was made by Nestlé in 2004 and contains the following categories:

Table no.4

Environmental protection performance at Nestlé⁵⁹

Variables observed	Unit per ton of product manufactured	Value in 1997	Value in 2004
Power consumption	10 ⁹ joule	4,55	2,73
Greenhouse Gases	Kg CO ₂	241	133
Air acidification	Kg SO ₂	1,74	0,65
Ozone layer affected	Equivalent g R-11	2,76	0,29
Water consumption	m ³	11	5,27
Waste water	m ³	8,86	4,26
Production of waste	Kg	103	57,4
Recyclability rate	% of the total waste production	75,7	77

The plan for making value, by presenting performances over areas, must be the source of an objective communication of all business results and not just the positive obtained. Together with microeconomic indicators systems, it is necessary to develop sets of indicators to monitor efforts and effects involved by macroeconomic sustainable development, indicators developed by professional bodies. Thus, the National Institute of Statistics and Economic Studies, throughout the Phare 2001 program, conducted a pilot study which aimed to develop a system of indicators for sustainable development. These indicators were focused on three “pillars” of sustainable development. NISES proposed a list of indicators which refer to the environment, to monitoring of the objectives formulated in the Development Strategy of Romania “Orizont 2005”, and indicators “monitoring the achievement of the MDGs”⁶⁰.

From what was stated during this chapter results that between marketing and sustainable development there is a complementary relationship, marketing is a *source* for ensuring the effectiveness and materialization of issues considered too broad or too abstract. Thus, in the efforts to find the best solutions in the social and environmental issues, marketing integrates the main motivations and braking elements which are found in attitudes, behaviors and habits of different individuals or groups, contributing decisively to operational programs that cover the sustainable development. Also, the bettering use of concepts and marketing tools allows a visible increase in efficiency of so-called *devices for concentration*⁶¹ stipulated throughout the steps of sustainable development. Being in the service of the new types of social, environmental demands, etc. and adapting to new ethical requirements, concepts and methods

⁵⁹ The Nestle Sustainability Review, Rapport de gestion 2004.

⁶⁰ http://www.insse.ro/evenimente/Tulcea/romana/abstract_Toma_RO.pdf.

⁶¹ It is a territorial concentration, a theme based concentration of funds etc. as can be seen at: www.senat.fr, Délégation à l'aménagement et au développement durable du territoire, 15th November. 2005.

of marketing are continually enriched. One of the most significant gains in this context is *the long-term intelligence in the areas of marketing*, which stands for the fact that experts and businesses have the ability to act not only for *today*, but for more distant periods also, periods which involve complex developments and multiple-choice response to these developments.

Another equally important gaining of marketing is the strengthening of the ability to adapt to cultural change or to change society as a whole. In this case it is a better understanding of the evolution of systems of values, of the lifestyles, of the new societal constraints, and of a very fine forecast of expectation types and needs that would manifest themselves on different markets. In an effort to advance simultaneously on economic, social, ethical and environmental levels, organizations are interested in various forms of partnership and cooperation, which enables them to outsource a part of the efforts. In this context, marketing will find support in the involvement and participation potential of clients: experiment with new offerings, the development of services in co-production, etc.

Along with marketing – sustainable development “partnership”, the concept of *sustainable satisfaction* was launched. This concept is not only what the buyer obtains over a sum of money, but all that he found in the companies or organizations as a valuing link, as an “echo” of the concerns and values to which he is attached, and an expression of its recognition, both as customers and as a citizen. This is the new capacity of an organization to provide its customers with both an economic consideration (*value for money*) and a psychological one (*ethical and status reward*), the latter being a real source of value, able to set satisfaction in time. From the *sustainable satisfaction*, *sustainable marketing* is the next step. The introduction of sustainable development goals in the marketing strategy **does not affect the stability and the foundations of modern marketing** as it was known and has continuously enriched as science, philosophy, attitude and practical activity. The *permeability* that marketing manifests is, in fact, the expression of its dynamism and development designed to broaden its scope of action, to improve its image, both as **a function of the company** and as a modern science of business guidance and management. The concept of *sustainable marketing* is innovative, an outcome of economical, social and environmental performances obtained in a long time, in association with the key stakeholders.

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Perspectives on knowledge management models

Dragoş Sebastian CRISTEA

scristea@ugal.ro

Alexandru CĂPAȚÎNĂ

acapatina@ugal.ro

University "Dunărea de Jos" Galați

Abstract

The purpose of this paper is to present the way some widely used knowledge management models are structured. We will describe the most important characteristics of each model, with our comments about its usefulness in the economical environment. The models we chose to analyze are as follow: von Krogh and Roos, Nonaka/Takeuchi, Wiig, Boisot and Bennet. We will discuss about main factors involved, about types of knowledge and elements which forms it and of course about advantages and disadvantages of these models. The paper will end with a general conclusion, which will largely synthesize our conclusions about each knowledge model

Keywords: knowledge, model, cognitive, epistemological, tacit, explicit, internalization, adaptive, assets, efficiency, forecasts, measures, dimensions

1. Introduction

If we are looking from a practical perspective, knowledge management requires certain organizing principles – a general framework – which will help us to classify different activities types and functions, which are needed to the work implying knowledge, both inside and outside of an organization. These general frameworks are to be found in form of theories and models for knowledge management. We can find in the specialized literature many models regarding knowledge management. From all these models we identified certain models that we think can be very well applied in almost any type of economical organization.

The choice we have made was based on the identification and analysis of many perspectives regarding basic concepts. Our purpose is to bring contrast, by comparing each model, in order to refine a better view over knowledge management processes. All selected models that will be described further on presents the following important characteristics:

- ✚ are able to realize a complete approach over knowledge management, they take in consideration people, processes, organization as a whole, technological dimensions
- ✚ were analyzed/discussed in knowledge management literature by academic researchers and business people
- ✚ all models were implemented and tested regarding reliability and validity

Of course, our analysis it is not supposed to be an exhaustive one, but we think that the selected models will enlarge the perspective over knowledge management and the benefits it can bring.

2. Insights on knowledge management models

2.1 Von Krogh and Roos model

This model brings a clear distinction between individual knowledge and social knowledge, following an epistemological point of view regarding knowledge management. According to this model, the following aspects should be analyzed:

- why and how the knowledge gets to the employees of a company
- why and how the knowledge reaches the organization
- what does it mean knowledge for the employee/organization
- what are the barriers for organizational knowledge management

The cognitive perspective states that a cognitive system, no matter if it's human or artificial, creates representations (models) of the reality, and the process of learning appears when these representations are somehow manipulated (used in different inferences).

A cognitive epistemology sees organizational knowledge as a system with self-organization characteristics, where people are transparent to the information coming from the exterior (we obtain information through senses and we are using it in order to create mental models)⁶². In this perspective, the brain can be perceived as a machine based on logic and detections, which doesn't permit opposite declarations. So, the organization gathers information from its environment, which it processes logically. By searches and different cognitive competencies, possible ways of actions will be generated – everything is based on the mobilization of individual cognitive resources.

It is known that the brain is not processing sequential symbols, but rather it perceives the whole perspective, global properties, models and synergies. Learning rules are those which can govern how the different components are inter-related. The information it is not just taken from the exterior environment, it can be generated also internally. The familiarity and practice are leading to learning. The employees form nodes of an organization's system, with relative weak links – knowledge represents an emergent phenomenon which comes from the social interaction of these persons.

We emphasize a very important conclusion: Knowledge is not present only in the mind of the people, but also in the connections (links) between them. As a representation of this network, the collective mind will be formed, which represents the core of organizational knowledge management.

Von Krogh and Roos are following in their models the principles of connectionist approach. In their organizational model, the knowledge is to be found both in the mind of the people and in the connections between them.

Compared to the cognitive approach, which sees knowledge as an abstract entity, connectionist ideas state that it is impossible to have knowledge without a knower. This is very well fit on the concept of tacit knowledge, which are very difficult to abstract. Krogh and Roos examined the nature of knowledge management from the perspective of: employees, communication, organizational structure, links between members and management of human resources⁶³. These five factors can generate problems which can prevent knowledge management strategies. For

⁶² Von Krogh, Nonaka I.: "Enabling knowledge creation: how to unlock the mystery of tacit knowledge and release the power of innovation", Oxford University Press, 2000

⁶³ Von Krogh, Roos, J.: "Knowing in firms: understanding, managing and measuring knowledge", Sage Publications, London, 1998

example, if the employees are not perceiving the knowledge as being an important part of the company, the effects will be seen in their quality of work. Also, if there is no common language to express new knowledge, keeping this new knowledge will be very difficult. In the case where members of the organization are not willing to share their experiences, it will be extremely difficult to generate social collective knowledge. Companies should use elements which activates knowledge by the stimulation of the employees.

This approach was further refined to identify a model for „knowledge activation”, before starting a knowledge management program. Activation refers to the general set of organizational activities which positively affects knowledge creation. These activities can highly improve human relationships, conversations and sharing local knowledge. We can say that connexionist approach seems to be a good base for a theoretical knowledge management model, mainly because of the fact that the link between knowledge and the ones who posses it, seems to be permanent.

2.2 „Nonaka - Takeuchi” model

This model was obtained after the research regarding the success of some Japanese corporations, about obtaining creativity and innovation. They discovered that this success didn't come from a mechanical processing of some objective knowledge, but from elements extremely subjective (metaphors and symbols).

The two researchers mention that a key factor of Japanese companies comes from the approach oriented much more to tacit knowledge. West cultures consider the knower and the element which is known as separate entities. In contrast, oriental culture believes in unity: mankind and nature, body and mind, own person and the others. In such an environment, knowledge is mainly found not at the individual but in groups, and it's easy to convert, shared and transferred. Nonaka and Takeuchi emphasize the necessity to integrate both kinds of cultures, in order to obtain better instruments. Knowledge creation begins always at the individual level.

Starting from this personal knowledge, mostly tacit, we will obtain organizational knowledge. The availability on every company level represents the essence of Nonaka model. Knowledge creation takes place as a continuum in all the compartments of the organization. According to Nonaka and Takeuchi model, there are four modes to convert knowledge, which represents „the engine” of the whole process to create knowledge⁶⁴. The creation of organizational knowledge represents the amplification of individual knowledge and its transformation into general applied knowledge. Next figure presents the stages involved in the process of knowledge creation:

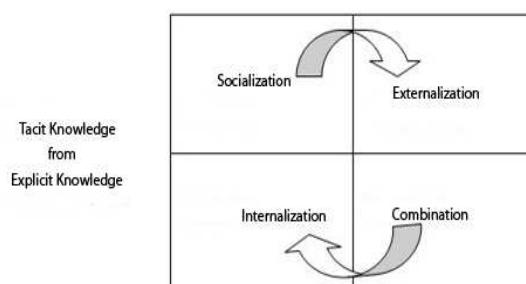


Figure 1: Knowledge conversion in Nonaka-Takeuchi model

⁶⁴ Nonaka, I, Takeuchi, H: “The knowledge creating company: how Japanese companies create the dynamics of innovation”, Oxford University Press, 1995

Socializations means to share knowledge by direct social interactions. Also, it implies to obtain a mutual understanding. It is one of the simplest forms of knowledge exchange, because it's an instinctual state. The greatest advantage of socialization it is also its greatest disadvantage, because knowledge remains tacit, it will be very rarely written or stored.

Davenport and Prusak emphasizes that: "Complex, tacit knowledge, developed and internalized by the one who posses it over a long period of time it is almost impossible to be reproduced in a document or in a database"⁶⁵. Such kind of knowledge incorporates so many details that the rules which define it are impossible to be separated. This leads to the idea that the process of obtaining new tacit knowledge it is not strictly tied to language but rather to experience and the ability to transmit it. The externalization process offers a tangible form of tacit knowledge by converting it to explicit knowledge. The employees are capable to define knowledge structures and to use certain methods to apply it in specific circumstances. Once externalized, knowledge is tangible and permanent. It can be easily shared and spread in organization. We can at this moment to start using Content Management Systems, used to create, manage, update, search and publish electronic texts or any other digital media format. For further identification it is important not to lose information about knowledge creators during the conversion from tacit to explicit. Next phase of knowledge conversion it's represented by combination (explicit to explicit). We understand by combination the process to combine knowledge pieces in order to obtain new knowledge forms. There is no knowledge which it's created by itself – it represents a new combination or a representation of an existing knowledge. Thus, combination takes place when concepts are sorted and systematized in a knowledge system. Internalization represents the last stage of knowledge conversion (explicit to tacit). This is realized through the diffusion and involvement of the new understood behavior.

We can associate internalization with the process of learning by practice. This implies to convert or integrate our knowledge/experience in mental models which will extend it, eventually reformulate in the context of a different knowledge base. Knowledge, experiences, best practices, learned lessons are passing through the conversion process, but it is impossible to stop at an intermediary phase. Only when knowledge is internalized in the knowledge base according to some mental models which can be shared, it will become useful to the company. We make a short comment by mentioning that is necessary for knowledge creation that this process to be reiterated for several times. Tacit knowledge accumulated at individual level must be socialized with other members, generating this way a spiral, which describes knowledge creation – which we can say that it is not a sequential process.

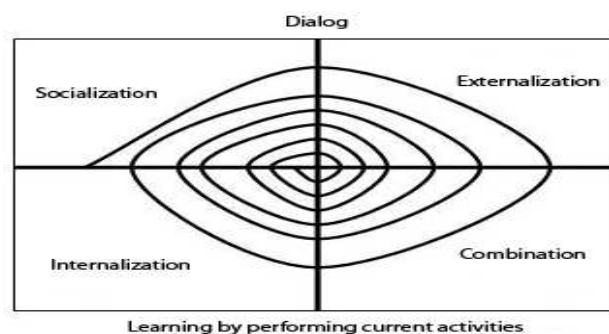


Figure 2: Nonaka/Takeuchi knowledge spiral

⁶⁵ Davenport, T, Laurence P.: "Working knowledge: how organizations manage what they know", Harvard Business Press, 2000

Figure 2 presents the way in which the organizations articulates, organize and systematize individual tacit knowledge. We consider that the most difficult steps in knowledge spiral are those which imply a change in knowledge type: externalization and internalization. We need ways to represent a consistent, systematic and logic understanding, without contradictions. Nonaka and Takeuchi describe the conditions which allow the creation of organizational knowledge⁶⁶:

1. Intention: expressed by the organization will to fulfill its purposes (formulating strategies in business context)
2. Autonomy: the situation when individuals are acting autonomous, according to some minimum specifications, being implied in teams with self organizing capabilities
3. Fluctuations and creative chaos: specific condition which stimulates the interaction between the organization and the extern environment
4. Redundancy: the existence of information which exceeds the operational requests of organizational members
5. Variety: internal diversity which offers to every employee rapid access to a variety of information

2.3. "Choo" model

It is a very good model to manage knowledge based on elements used to create new senses for an optimized decision inference. Choo model centers on how informational elements are selected and introduced in company actions. This actions results from the concentration and absorption of information coming from the external environment in every cycle, illustrated in figure 3:

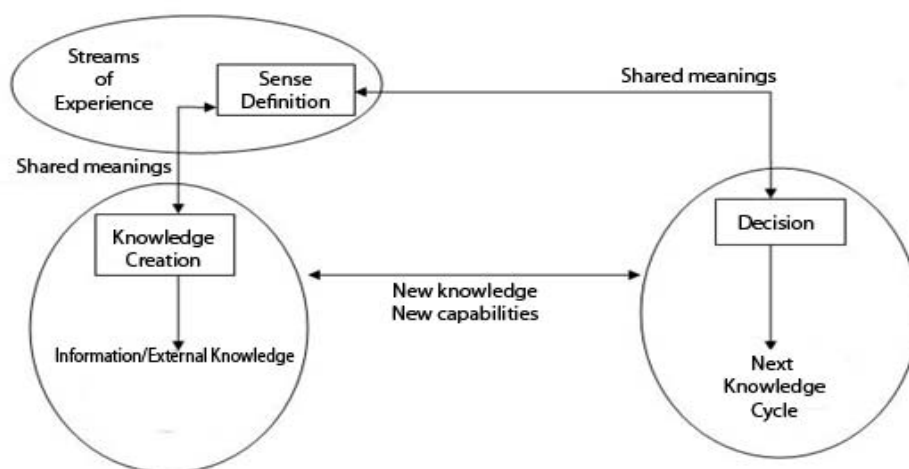


Figure 3: "Choo" knowledge management model

During the identification phase we will define priorities which are used for information filtering. At individual level, common interpretations will be built from the exchange of information pieces, combined with previous experiences. Weick proposed a theory where he tries to describe how chaos can be transformed in clear processes by sharing individual interpretations. We have identified four processes described by Choo model:

- ✚ *Changing the environment* - it is external for the organization, having the possibility to disturb information flow between participants
- ✚ *Adaptation*

⁶⁶ Sven, J, Henrik L.: "Intelligent management in the knowledge economy", Edward Elgar Publishing, 2003

- ✚ *Selection and keeping* - when people tries to interpret what have been observed. This is the process which refers the creation of organizational memory which will contain those experiences finalized with success. This memory can be reused in the future for new interpretations in order to unify them into a coherent organizational vision.

Knowledge creation can be perceived as a transformation of personal experiences into knowledge through dialog and sharing. Elements of this model can be found in important theories like: game theory, economic behavior and chaos theory. The capacity of human mind to formulate and solve complex problems it is quite small compared to the problem dimensions, of which solutions are necessary for a rational behavior. As a consequence, the persons who are confronted with ambiguous purposes and fuzzy methods to combine actions will try to fulfill those purposes which take a medium amount of time by using resources which are under their control⁶⁷. Usually, when our mind is confronted with a world of great complexity, it will build a simple mental model and will act according to it. We found a strong element of Choo model in the holistic approach of key processes regarding knowledge management, with extension to decision areas, which often miss in knowledge management models.

2.4 „Wiig” model

The base of this model is represented by the following principle: „if we want to have useful and valuable knowledge”, these must be organized. Knowledge should be differently organized, accordingly to the way it will be used. For example, in our own mental models we have the tendency de deposit our knowledge using semantic networks. This model address also the problem referring to how relevant can be the knowledge, coming from a specific source. The source can be: minds of the people or knowledge bases (tacit or explicit). It is very important to know about knowledge that it is discoverable. Another important aspect refers to the relations between different objects of knowledge. We will find that very few elements are completely disconnected, in other words, independent. As a general rule we can say that content value is higher when we have a greater number of connections in a knowledge base. As a consequence, all the facts, concepts, perspectives, values, judgments must be consistent. We should try to reach a situation where there are no logical inconsistencies, internal conflicts or misunderstandings. Wiig model defines many levels regarding the internalization of knowledge. We present each level in the next table⁶⁸:

Table 1: Degrees of internalization in Wiig model

Level	Type	Description
1	Novice	Extremely low consciousness (even not at all) about knowledge and the way it can be used
2	Beginner	He knows about knowledge existence and where it can be obtained, but he doesn't know the way it can be used
3	Competent	Knows, but the possibility of using knowledge is limited
4	Expert	He keeps the knowledge in mind, understands where can be applied, works with knowledge without extern intervention
5	Master	Completely internalization of knowledge; a master has a profound understanding about the events in his environment

⁶⁷ Choo C. : “The knowing organization”, New York, Oxford University Press, 1998

⁶⁸ Wiig, K: „People-focused knowledge management: how effective decision making leads to corporate success”, Butterworth-Heinemann, 2004

Internalization represents a continuous process, starting from the lowest level (the novice) where we don't know that we don't know to arrive at the master level, where we can find profound understanding of all concepts like „know-what”, „know-how”, „know-why”, „care-why” (values, judgments, motivations). We identify three knowledge forms: *Public* (explicit, can be learned and shared), *Sharing expertise* (intellectual assets which are held exclusively by employees and shared during work or embedded in technologies. This type of knowledge is usually communicated through a specialized language and representations), *Permanent knowledge* (the least accessible, but the most complete form of knowledge. It's usually tacit and used without knowing).

Besides these three forms, Wiig defines another four types of knowledge: based on facts, conceptual knowledge, methodological knowledge and expectation knowledge. Knowledge based on facts is about data, causal links, measures and readings – having an observable content, directly measurable.

Conceptual knowledge implies systems, concepts and perspectives. Methodological knowledge is used by strategies, methods for decision refining and other techniques. As example we find all the situations when the company is learning from previous mistakes or has the ability to make forecasts based on events analysis. Expectation knowledge refers to judgments, hypothesis and expectations of the persons that possess them. As examples, we can mention: intuitions, suppositions and heuristics that we are using in the process of taking decisions. All three classical forms of knowledge, combined with the perspectives proposed by Wiig, are forming a matrix which constitutes the core of Wiig knowledge management model (table 2)⁶⁹.

Table 2: Wiig matrix

Knowledge form	Knowledge type			
	Facts	Concepts	Waiting	Methodological
Public	Measuring	Stability, Equilibrium	When stock value exceeds the request, the price drops	Searching for values in variables outside norms
Shared	Forecasts analysis	Heavy market	A small addition will not generate sell problems	The identification of some errors from the past
Personal	The value of the variable is the most suited	The company has very good references	The suspicion that an analyst made a mistake	What are the most recent tendencies

We consider that the important characteristic of this model is the fact that even if Wiig defined it in 1993, a very organized approach of knowledge types which can be managed makes from this model a very good theoretical model of knowledge management. Probably it represents the most pragmatic model, which we have in the present, which can fit easily on any other approach.

2.5 Boisot model

This model is based on the concept of „informational asset” which is different from a „physical asset”. Boisot made a distinction between information and data, emphasizing that information is what an observer will extract from data, according to his own experience and previous knowledge.

⁶⁹ Wiig, K.: “Knowledge management foundations: thinking about thinking. How people and organizations create, represent and use knowledge”, Schema Press, Arlington, 1993

The efficiency of informational assets transfer is largely dependent on senders and receivers, which have to share same codification scheme or language. Knowledge will also have a context in which it can be described⁷⁰. Thus, it results that both the sender and receiver will have to share the context besides codification scheme. Boisot proposed three key points, which forms together a conceptual framework known as „i-space”. Boisot model („i-space”) can be visualized as a cube having the following dimensions: coded – “un-coded”, abstract – concrete, diffused – undiffused:

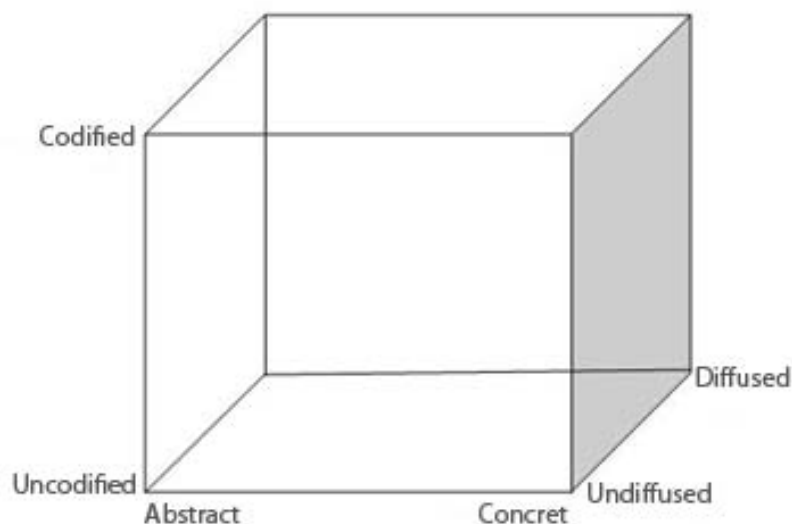


Figure 4: Boisot "I-Space" model

Data is structured and understood through different codification and abstract processes. Codification refers to the creation of some categories – lesser the number of categories, more abstract the codification scheme will be. Boisot model implies that in many situations the context loss because of the codification can lead also to the loss of important knowledge. This content needs a shared context in order to be interpreted and it requires face to face interactions (similar to socialization phase from Nonaka model). The activities of codification, abstractization, diffusion, absorption, impact and analysis, contributes to the learning process. No matter if it's sequential (and it's necessary to a certain point to be like this), together will form the six phases of a learning cycle.

We describe in table 3, these activities:

Table 3: "I-Space" model learning cycle

Phase	Name	Characteristics
1	Scanning	Identifying threats and opportunities from a fuzzy content Scanning, in the context of some models, for the discovery of new visions, which to become the possession of an individual or group. Scanning process can be fast when data is codified and abstract, or very slow and random when data is un-codified and dependent of context
2	Problem solving	The process which offers structure and coherence to these visions During this phase a large amount of uncertainty is eliminated Problem solving in the un-codified region of I-space model is often hazardous and conflict generating

⁷⁰ Boisot, M.: „Knowledge assets: securing competitive advantage in the information economy”, Oxford University Press, 1999

3	Abstraction	Generalization of applying new codified visions in a large number of applications It implies to reach the most important characteristics of a situation – conceptualization Problem solving and the abstracting often works together
4	Diffusion	Sharing new visions with a certain number of persons The diffusion of well codified abstract content to a large number of persons will be technically less problematic than the un-codified case and content dependent Only sharing context both by sender and receiver can increase the diffusion speed of un-codified knowledge
5	Absorption	Applying new codified visions to different situations, using a „learn by execution” manner Over time, codified visions will interact with those un-codified, the former one being favored in particular circumstances
6	Impact	Including knowledge in real practices Including knowledge in technical rules, organizational or organizational practices Absorption and impact often works in tandem

Thus, there is the potential to use Boisot model to manage knowledge assets of the organization according to learning cycle. Anyway, this model it is not very well known, so we couldn't find many implementations in the real environment.

2.6 Adaptive models of knowledge management

The ICAS (**I**ntelligent **C**omplex **A**daptive **S**ystems) theory sees organization as an adaptive, complex system. These models contain series of functions which ensures the viability of any living system in general and of organizations, in particular. ICAS systems are based on cybernetics principles, which are using communications and control mechanisms in order to understand, describe and predict what should do a viable organization. Adaptive systems contain lots of independent agents which are interacting. Their behavior makes possible the appearance of some complex phenomenons of adaptation. There is no general authority to manage the way in which these agents should work. A general model of a complex behavior will be the result of all the interactions.

Bennet describes an approach of knowledge management, using ICAS systems as a starting point. It is considered that traditional bureaucracies are not enough to provide the necessary cohesion for the survival of the organization. It was proposed a new model (Bennet) in which the organization is perceived as a system found in a symbiotic relation with its environment. Bennet model is based on a number of subsystems which interacts and evolves in order to generate an advanced and intelligent technological company⁷¹.

Inside the adaptive model, the intelligent components are made of people which are self organized, but who can remain as a part of general hierarchies of the organizations. The challenge is to use the advantage given by the force of the people when they cooperates, keeping a global sense of unity.

The organizations solve problems by creating options, using resources both internal and external which can add value over the initial input. So, the knowledge became the most valuable resource because it is the only one who can help in the context where uncertainty exists. This is one of the criteria by which we can distinguish between information

⁷¹ Bennet, D: "Organizational survival in the new world: the intelligent complex adaptive system", Butterworth-Heinemann, 2004

management (predictable reactions to known situations and anticipated situations) from knowledge management (using new reactions for un-anticipated situations). We can resume key processes in Bennet model as being the following:

1. Understanding
2. Creation of new ideas
3. Problem solving
4. Decision taking
5. Following actions to obtain the desired results.

Because people can take final decisions and fulfill actions, this model emphasizes the importance of the person: competencies and learning capacity.

According to this model, in order to survive, an organization needs eight characteristics: organizational intelligence, shared purposes, selectivity, optimum complexity, open borders, knowledge centering, optimum streams and multidimensionality

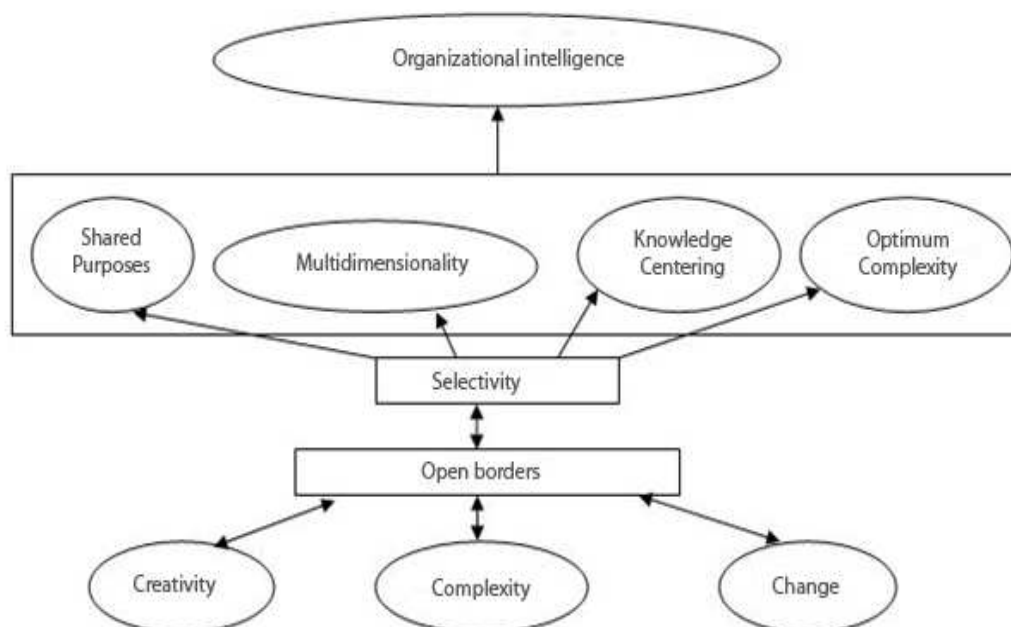


Figure 5: Bennet (ICAS) model

- ✚ The organizational intelligence represents the company capacity to innovate, to acquire knowledge and to apply it for relevant situations. In the context of ICAS models, this property reveals the capacity of the organization to perceive, interpret and respond to the environment in such a way that will allow reaching the desired purposes.
- ✚ Optimum complexity is represented by the correct equilibrium between internal complexity and external environment
- ✚ Selectivity refers to the content evolution, one characteristic that is opposed to the approach based on data warehouses. To be selective means to filter the input information coming from external environment. A good filtering requires a deep understanding of the organization, specific knowledge on clients and a very good understanding of the strategic objectives.
- ✚ Knowledge centering leads to the information aggregation after self-organizing, collaboration and strategic alignment. Informational streams will activate the knowledge development and will facilitate the connections and necessary continuity to keep the unity and the coherence of the organizational intelligence.

- ✚ Open borders represents a very important aspect, if we want free movement for the ideas
- ✚ Multidimensionality brings organizational flexibility which ensures the fact the staff has the competencies, the perspectives and the cognitive abilities to solve problems

We conclude by saying that there are four ways for ICAS models to describe organizational knowledge management: creativity (generation of new ideas, perspectives, understandings, building products, services definition), problem solving, taking decisions processes, different implementations.

3. Conclusions

For a long period of time, those who tried to apply knowledge management practices have done it with a great inertia, based on empirical and intuitive principles. We consider that knowledge management „wave” is necessary in order to ensure a high degree of completeness and profoundness for knowledge management practices and to address all critique factors which will appear. Another practical benefit of knowledge management models is the fact that it helps to reach organizational purposes (through a better understanding of the elements which are involved)

These models helps us to understand what happens in the present (what we've gained so far) and offers a way to understand what is about to happen (forecasting) Synthesizing presented knowledge management models, we consider the following elements as being the main ones:

- ✚ Krogh and Roos model is following an epistemological approach and is emphasizing the idea of knowledge that is to be found both in the individual mind and in the relations between persons.
- ✚ Nonaka/Takeuchi models is centered on knowledge spirals, which can explain tacit knowledge transformation in explicit knowledge, this type of knowledge being considered ground base for learning and innovation, individual, group and organizational
- ✚ Choo/Weick model adopts an approach through which it tries to define the sense by analyzing the way how informational elements are found in organizational actions
- ✚ Wiig model is mostly based on the principle who states that knowledge can be useful only when it is organized using semantic networks, in order to ensure perspectives and purposes.
- ✚ Adaptive models are very well suited for modeling knowledge management processes, because the organization is treated as a living organism concerned with an independent existence and which is concerned with its surviving at almost any moment. Beer/Bennet applied this model in order to describe the cohesion and pressures which are manifested over ICAS systems.

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