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NEGATIVE AFFECTIVITY, CONSCIENTIOUSNESS AND JOB SCOPE (A CASE OF IT AND TELECOM INDUSTRY)

**BILAL AFSAR,
ASAD SHAHJEHAN, ZIA UR REHMAN ***

ABSTRACT: *Based on a sample of 350 employees in the telecommunication and telecommunication, we obtained empirical evidence suggesting that while individuals high on conscientiousness tended to react more positively to job scope, individuals high on negative affectivity tended to react less positively. Job scope was defined as the extent to which a job required the jobholder to be mentally and physically involved to get it done effectively. Typically, a job characterized by a high job scope would be non-repetitive, would need a great deal of independent thought/action and training, would entail the job holder to keep track of his/her progress, and others. The affirmative results obtained in regard of the moderating roles of personality factors in the present study suggested that job design researchers should further explore individuals' personality differences in response to job scope.*

KEY WORDS: *conscientiousness; negative affectivity; job scope; job characteristics*

JEL CLASSIFICATION: *M12*

1. INTRODUCTION

Research has suggested that job scope may exert contrasting effects on employees' psychological states (e.g., Xie & Johns, 1995; French, Caplan, & Harrison, 1982; Kahn & Byosiere, 1992; Champoux, 1978, 1980). On the one hand, a high job scope may bring about challenges and a sense of meaningfulness for the jobholder, resulting in higher job satisfaction and lower stress (e.g., Hackman and Oldham, 1975,

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1976, 1980). On the other, a high job scope may entail social and mental demands, information load, and responsibility, resulting in greater job dissatisfaction and greater stress (e.g., French & Caplan, 1973; Schaubroeck & Ganster, 1993; Martin & Wall, 1989). For the purpose of this paper, job scope is conceptualized as the extent to which a job required the jobholder to be mentally and physically involved to get it done effectively. Typically, a job with a high job scope would be non-repetitive, would need a great deal of independent thought/action and training, would entail the job holder to keep track of his/her progress and targets, would require the jobholder to pay constant attention to avoid making mistakes, and would necessitate the job holder to seek references and consultation from others.

If job scope simultaneously impacts on jobholders positively and negatively, then jobholders' responses to it may be dependent on their dispositional sensitivity to these contrasting effects. For example, jobholders who are predisposed to exerting effort and meeting challenges may react more positively to the challenges and demands associated with job scope. Alternatively, jobholders who are predisposed to perceiving and reacting strongly to negative cues may react more negatively to the stressful aspects of a job. In this respect, two of the most researched personality constructs, conscientiousness and negative affectivity, may have direct relevance to the interplay between the individual jobholder and his/her job scope in determining affective outcomes.

More specifically, researchers have found that certain "bandwidth" personality traits, such as conscientiousness, may account for many of the more narrowly defined personality variables examined in the personality literature (Barrick & Mount, 1991; Ones & Viswesvaran, 1996). In particular, individuals high on conscientiousness are characterized by such qualities as high drive and high achievement orientation. They may be more receptive to the challenges and more tolerant of the demands brought about by a high job scope as described above, resulting in greater job satisfaction compared to those low on conscientiousness. To date, however, no research has examined this possibility.

Further, although research has found that negative affectivity may affect individuals' affective states across situations (e.g., Watson & Clark, 1984), the moderating affective effects of negative affectivity with job characteristics have not been firmly established. While some studies have supported the moderating effects of negative affectivity on psychological outcomes (e.g., Brief, Burke, George, Robinson, & Webster, 1988), others have not (e.g., Chen & Spector, 1991). A gap in the research on negative affectivity thus exists, necessitating further empirical investigation.

The present research has three potential contributions to research and practice. First, we sought to examine the moderating affective effects of conscientiousness with job scope. Conscientiousness has been found to be the most efficacious for job performance among the Big-5 personality traits, which have attracted a great deal of attention recently (e.g., Barrick and Mount, 1991; Ones & Viswesvaran, 1996). The affective effects of conscientiousness, however, have not attracted the research attention they deserve. By including conscientiousness in job design research, we hoped the present study would open a new line of inquiry into the affective roles of conscientiousness in organizational behaviour.

Second, as mentioned above, the moderating role of negative affectivity in individuals' affective reactions to job scope awaits confirmation. The present research attempted to harness empirical evidence in the context of the telecommunication and information technology industry in Pakistan. Third, given the diverse and conflicting findings about the affective effects of job scope on individuals gathered thus far, practitioners may be in a fix about how job design can best be utilized to help them design an effective work system.

By delving into the roles of individual differences on such dimensions as negative affectivity and conscientiousness, practitioners should be better able to appreciate the intricacy involved in matching people with jobs, thereby improving their managerial effectiveness.

2. THEORY AND HYPOTHESES

Negative affectivity (NA) refers to an individual's tendency to experience antipathetic emotional states (Watson & Clark, 1984), such as feelings of distress, nervousness, tension, anger, guilt, sadness, and others. NA does not measure a person's psychological health, nor does it prevent a person from feeling happy. Individuals high on NA tend to (but not always) feel dissatisfied across time and situations. They tend to pay more attention to the negative aspects of the world around them and dwell on their mistakes. Additionally, they are more pessimistic about the future (Watson & Clark, 1984). Extant research has demonstrated the negative linkage between NA and jobholders' affective states on the job (e.g., Staw, 1984; Staw & Ross, 1985; Kraiger, Billings & Isen, 1989; Brief, Burke, George, Robinson, & Webster, 1988; Arvey, Bouchard, Segal, & Abraham, 1989; Watson & Pennebaker, 1989; Larsen & Ketelar, 1991; Chen & Spector, 1991; Staw, Bell & Clausen, 1986).

McCrae and Costa (1991) have postulated two mechanisms through which negative affectivity may determine individuals' affective reactions to the work environment. From the instrumental perspective, individuals high on NA may act more negatively towards the work environment, creating more negative responses from bosses, co-workers, subordinates, and others. These negative cues may lower their job satisfaction. From the temperamental perspective, individuals high on NA may be more sensitive and react more strongly to negative events on the job (Eysenck, 1987; McCrae & Costa, 1991; Tellegen, 1985).

Further, Larsen and Ketelar (1991) and Brief, Butcher, and Roberson (1995) have shown that individuals high on NA are less perceptive of and react less strongly to positive events. Extending these theoretical arguments to job scope, we would expect individuals high on NA to exhibit lower job satisfaction because they would experience less of the positive and more of the negative effects of job scope, which include excessive variety (Kahn & Byosiere, 1992), responsibility for others (French & Caplan, 1973), and mental and social demands (Schaubroeck & Ganster, 1993). Individuals high on NA should experience lower job satisfaction also because they are less perceptive of and reactive to the positive aspects of job scope, such as meaningfulness on the job (Hackman & Oldham, 1976, 1980). Negative affectivity should have negative moderating effects on affective reactions to job scope.

In another stream of research, researchers have found that the Big-5 personality dimension of conscientiousness (the other four being extraversion, agreeableness, emotional stability, and openness to experience) may be a valid predictor of performance across a wide variety of conditions (Barrick & Mount, 1991; 1993). Barrick and Mount (1991) have defined a conscientious person as being planful, careful, organized, responsible, purposeful, dependable, hardworking, persistent, and achievement-oriented. Additionally, a conscientious person also has higher expectations and sets higher goals for him/herself (Gellatly, 1996). He/she will tackle complex jobs when the jobs are assigned to him/her.

Barrick and Mount (1991, 1993) have found that conscientiousness is a valid predictor of three types of performance outcomes, namely, training, performance, and such personnel criteria as salary level, turnover, and others (p.8). Other studies have also shown empirical support for the importance of conscientiousness in job performance (Cortina, Doherty, Schmitt, Kaufman, & Smith, 1992). The implications of conscientiousness for affective states on the job, however, are less obvious and no previous studies have addressed them.

French, Rogers, and Cobb (1974) have proposed a person-environment fit model of employee psychological reactions at work. They argue that stress may result from a lack of fit between the jobholder and the job environment in two ways. First, stress may result when the job environment cannot provide sufficient conditions to meet the jobholder's personal needs, values, motives, and goals (supplies-values misfit). Second, stress may also result when job requirements (in terms of workload, time pressures, responsibility, and others) are beyond the capability and adaptability of the jobholder (demands-ability misfit) (Xie & Johns, 1995).

Since conscientiousness is positively associated with volitional efforts and striving for performance, individuals high on conscientiousness are more likely to achieve supplies-values fit as well as demands-ability fit on the job, resulting in greater job satisfaction. Specifically, individuals high on conscientiousness are more predisposed to and in greater need of working hard and achieving results. Their needs and values in favor of meeting challenges on the job should be better served by a job with a high job scope, since a high job scope would entail that they exert greater efforts to meet the greater demands (e.g., responsibility for others, attention to information, and interpersonal interactions). At the same time, previous research has shown that individuals high on conscientiousness are able to outperform their low counterparts by setting higher goals and are more persistent in pursuing results (Barrick, Mount, & Strauss, 1993). These individuals should be better able to handle the demands associated with a high job scope. We thus expect that conscientiousness will have positive moderating effects on individuals' affective reactions to job scope.

- **Hypothesis 1:** *Employees high on negative affectivity will react less positively to a high job scope compared to those low on negative affectivity.*
- **Hypothesis 2:** *Employees high on conscientiousness will react more positively to a high job scope compared to those low on conscientiousness.*

3. METHOD

3.1. Sample and Procedure

Data for the present study were obtained from a field survey on employees in the information technology (IT) industry and Telecom Industry of Pakistan. Since the end of 90's and the start of twenty first century, IT has been on the boom in Pakistan with the profound number of users. The rapidly expanding IT industry has witnessed a strong demand for qualified personnel in recent years. In general, IT employees are engaged in activities that support and serve the information needs of corporate or individual users through electronic means (Neo, 1992; which also contains the details of IT jobs and job families). The Government, in particular, has formulated and implemented the ambitious IT master plan. Similarly in the late 90's another sector which has seen tremendous growth is Telecom Industry with ever large number of mobile users and with companies like Mobilink, Ufone, Telenor, Warid and Zong.

The present study is thus timely in helping us gain a better understanding of employees working in these important sectors. Finally, as regard the possibility of the restriction of range problem, we strongly feel that focusing on an industry will partial out many of the confounding factors at the source and provide a stronger test of our hypotheses. These advantages definitely will improve the quality of the present research. We identified potential participants from among full-time employees working in the information technology and telecom industry.

Table 1. No unusual patterns can be identified in the profile.

Profile of Respondents	Variables Percentage (%)
Gender	
Male	74.4
Female	25.6
Age	
Below 20 years	3.7
20-29 years	59.6
30-39 years	29.3
40-49 years	5.3
50 and above	2.1
Educational level	
Under HSSC	13.3
Graduate	67.3
Post graduate	8.34
Others	0.5
Job type	
Systems Development	21.4
Computer Operations	20.7
Sales and Marketing	34.5
R&D	11.7
IT specialist support	11.7

We approached companies for participation support and asked friends, colleagues, university students, family members, and others to help us look for IT employees and Telecom employees. We also asked individuals who had participated in the study to recommend people they knew for this study. A total of 459 questionnaire were distributed to IT as well as telecom employees in sales and services, applications, consulting, and R&D. 370 questionnaires were returned, yielding a response rate of 82%. Twenty questionnaires were incomplete and discarded. The final sample consisted of 350 cases. The questionnaire was written in English. The profile of the respondents is presented in

3.2. Dependent Variable

Job satisfaction was measured with 10 items adapted from the Job Descriptive Index (Sims, Szilagyi, & Keller, 1976) and the Job Diagnostic Survey (Hackman & Oldham, 1975; see also Fried, 1991). On a 5-point scale, respondents were asked to respond to the following aspects of their jobs: the job itself, pay, opportunities for promotion, supervision received, working with co-workers, organizational support, job security, opportunity for personal growth and development, opportunity for intellectual stimulation, and overall job satisfaction ($\alpha=.89$). We took the average of these items as the final measure for this variable.

3.3. Independent Variables

Negative affectivity was measured with 7 items adapted from the Negative Affectivity Scale (Levin & Stokes, 1989). Respondents gave their answers, on a point scale, to “Things rarely work out the way I want them to”, “When I meet people for the first time I am tense and up tight”, “Whenever someone criticizes me, I think about it for days”,

“Happy endings only occur in the movies and in fairy tales”, “I am not as well liked as most people”, “After an embarrassing experience, I worry about it for a few days”, and “I am not as self-confident as most other people” ($\alpha=.94$). We took the average of these items as the final measure for this variable. Conscientiousness was measured with 9 bipolar items adapted from Goldberg (1992), Banick and Mount (1991), Cortina et al (1992), and Digman (1990). We asked respondents to respond, on a 7-point scale, to Fussy–Careless, Responsible–Undependable, Scrupulous–Unscrupulous, Persevering–Fickle, Achievement Oriented–Relaxed, Planful–Reckless, Reliable–Unreliable, Thorough–Superficial, and Hardworking–Lazy ($\alpha=.93$). We took the average of these items as the final measure for this variable. (The scatterplot of the 350 data points on conscientiousness and negative affectivity is available from the first author upon request).

Job scope was operationalized as a person-job interaction constructs (Campbell, 1988). As Campbell (1988) has pointed out, “a job high in the core dimensions can be experienced as boring” (p. 41). Because of individual differences in coping with job demands, job scope should not be construed as a purely objective construct.

Unfortunately, Campbell (1988) did not provide the items we needed to operationalize job scope. We consulted other studies, such as the Job Diagnostic Survey (Hackman & Oldham, 1975) and the Job Descriptive Index (Sims, Szilagyi, & Keller, 1976), for ideas. Ten items were chosen after we sought the views of 10 IT experts regarding the items' clarity and ease of understanding among IT employees in Pakistan. These 10 items were (on a 5-point scale).

“How repetitious are your job duties?”; “How much opportunity is there for independent thought and action on this job?”; “To what extent can you meet the deadline of this job?”; “How much training do you need before you can master your job?”; “How much on-the-job training do you need as you work (on a continual basis)?”; “To what extent must you keep track of the objectives and targets of this job?”; “To what extent are you given well-defined objectives and standards?”; “To what extent are you likely to commit errors on this job?”; “To what extent must you seek references and consultation on this job?”; and “How repetitious are the requirements of your job?” ($\alpha=.92$). These items reflected jobholders' perception of the mental and physical demands as well as the challenges and meaningfulness of their jobs. We took the average of these items as the final measure for this variable (reverse scored where appropriate).

To establish the discriminant and face validity of job scope vis-à-vis other constructs used in the present research, including negative affectivity, job satisfaction, and conscientiousness, we presented all questionnaire items in random order and asked the 10 systems analysts to sort them into the respective constructs, including a “can't decide” category. Results showed that all questionnaire items were correctly classified by the judges, indicating that the questionnaire items were meaningful to them as distinctive measurement items of the constructs. Further, the 10 systems analysts were given job descriptions extracted from the IT job guide (National Computer Board, 1992) and asked to give their job scope ratings on the IT job families. Their ratings were correlated with the job scope ratings given by the 350 respondents on their own jobs. The correlation was .89 ($p<.0001$), indicating that the questionnaire items were not purely subjective to the 350 respondents.

3.4. Control Variables

Variable held constant in order to assess or clarify the relationship between two other variables. Not to be confused with controlled variable which is an alternative term for independent variable. In scientific experimentation, a control variable is one that must not be changed throughout an experiment because it affects the dependent variables and thus affects the outcome of the experiment. For example, in the experimental verification of Boyle's law, the temperature must be kept constant. It basically is the thing you keep the same. An example of a controlled variable would be if you have experimented on plants and tested a product on two plants the soil and the pot would be two controlled variables. Controlled variables are influences that could affect the outcome of an experiment, and so are purposely controlled so that they do not impact the experimental results. Where possible, the controlled variable is kept constant. According to ScienceBuddies.org, a controlled variable is the quantity in an

experiment that a scientist keeps the same, to compare or observe differences in the measured or variable portion. Controlled variables are also known as constant.

Several control variables were included in the present study to weed out statistical artifacts that are not theoretically meaningful for the present research. Differences between job families within the IT industry were controlled for with 4 dummy variables, “systems development” (yes=1; no=0), “computer operations” (yes=1; no=0), “sales and marketing” (yes=1; no=0), and “R&D” (yes=1; no=0), with “specialist support” as the default. Gender was a dichotomous variable (male=1; female=0). Educational level was measured on an ordinal scale, with “high school”=1 and “post-graduate degree”=5.

Table 2. Means, Standard Deviations, and Inter-correlations of All Variables

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
(1)Systems development (yes=1; no=0)	.31	.47											
(2)Computer operations (yes=1; no=0)	.21	.41	-.35										
(3)Sales and marketing (yes=1; no=0)	.24	.43	-.38	-.29									
(4)R&D (yes=1; no=0)	.12	.32	-.25	-.19	-.21								
(5)Gender (male=1; female=0)	.62	.54	-.47	.21	.58								
(6)Educational level (high school=1;post graduate=5)	3.76	.58	-.69	.42	.56	.85							
(7)Age (less than 20=1; 50 & above=5)	2.43	1.5	-.65	.25	.83	.91	.43						
(8)Job scope (low=1; high=5)	3.35	.52	-.18	.12	.28	.36	.45	.49					
(9)Conscientiousness (low=1; high=7)	5.37	.58	-.52	.65	.38	.35	.28	.59	.26				
(10)Negative affectivity(low=1;high=5)	3.15	.21	.25	.58	.65	.35	.95	.25	.98	.48			
(11)Job satisfaction (low=1; high=5)	3.38	.85	-.15	.1	.89	.25	.45	.58	.25	.25	.69	.15	

Note: Bolded figures are significant at $p < .05$.

Table 3. Hierarchical Regression Results for The Moderating Effects of Negative Affectivity and Conscientiousness (Unstandardized)

Variables	Baseline Model	Model 1	Model 2	Model 3	Model 4
Systems development (yes=1; no=0)	.04	.06	.07	.08	.03
Computer operations (yes=1; no=0)	-.26 ^t	-.29 [*]	-.30 [*]	-.32 [*]	-.33 [*]
Sales and marketing (yes=1; no=0)	.17	.12	.17	.13	.15
R&D (yes=1; no=0)	.09	.05	.06	.04	.01
Gender (male=1; female=0)	.42 ^{****}	.45 ^{****}	.42 ^{****}	.45 ^{****}	.44 ^{****}
Educational level	.14 ^{**}	.14 ^{**}	.12 [*]	.13 ^{**}	.12 ^{**}
Age (less than 20=1; 50 & above=5)	-.03	-.02	-.02	-.02	-.01
Job scope (low=1; high=5)	.09	.39 [*]	-.47 ^t	-.08	.10
Negative affectivity (low=1; high=5)	-.08 [*]	.26 ^t	-.09 [*]	.20	.05
Conscientiousness (low=1; high=7)	.17 ^{****}	.17 ^{****}	-.18	-.09	-.14
Constant	1.78 ^{****}	.78	3.86 ^{***}	2.51 [*]	3.17 [*]
Negative affectivity × job scope	-.11 ^{**}	-.09 [*]	-.15 ^{**}		
Conscientiousness × job scope	.10 [*]	.07 ^t	.02		
Negative affectivity × conscientiousness × job scope	.02 ^t				
R2	.49	.51	.51	.52	.53
Model F	15.48 ^{****}	15.24 ^{****}	14.97 ^{****}	14.43 ^{****}	13.80 ^{****}
R2 change (over and above the Baseline Model)	.02	.02	.03	.04	
F of R2 change	6.90 ^{**}	5.27 [*]	4.89 ^{**}	4.37 ^{**}	
t p<.10 * p<.05 ** p<.01 *** p<.001 **** p<.0001	a Compared with the Baseline Model.				

4. RESULTS

We used hierarchical regression analyses to test the moderating (or interactive) effects of negative affectivity and conscientiousness on employees' affective reactions to job scope, controlling for the potential confounding effects of individual demographic and job environmental factors. Table 2 presents the descriptive statistics. Male and better educated respondents earned more and were more satisfied with their jobs than their female counterparts. Older respondents were more satisfied with their jobs than the younger counterparts. Those in systems development and sales and marketing perceived a higher job scope. Conscientiousness was positively associated with job satisfaction, and negative affectivity, negatively. These statistics did not suggest anomalies in the sample.

Table 3 displays the hierarchical results examining the moderating effects of conscientiousness and negative affectivity with job scope on employees' job satisfaction. We first built a baseline model containing all the control variables (including the main effects of negative affectivity and conscientiousness) and subsequently added the interactive terms to detect the incremental moderating effects of conscientiousness and negative affectivity.

Hypothesis 1 was supported in Model 1. The coefficient for the interactive term, "negative affectivity x job scope", was negative and significant ($F=6.90$, $p<.01$). Negative affectivity had negative interactive effects on job satisfaction in response to job scope. In other words, individuals high on negative affectivity tended to experience lower job satisfaction when the job scope was higher compared with those low on

negative affectivity. Hypothesis 2 was supported in Model 2. The interactive term between conscientiousness and job scope was positive and significant ($F=5.27, p<.05$). Hence, individuals high on conscientiousness tended to experience greater job satisfaction when the job scope was higher compared with those low on conscientiousness.

Model 3 shows the simultaneous moderating effects of negative affectivity and conscientiousness. Comparing Model 3 with the Baseline Model, we noticed that the simultaneous interactive effects of negative affectivity and conscientiousness were significant ($F=4.89, p<.01$). The incremental change in R^2 contributed by the interactive effects of conscientiousness (comparing Model 3 with Model 1) was marginally significant ($F=2.82, p<.10$), whereas that contributed by the interactive effects of negative affectivity (comparing Model 3 with Model 2) was significant ($F=4.41, p<.05$). Hence, negative affectivity was more significant than conscientiousness in moderating employees' affective reactions to job scope. Although we did not have a priori hypothesis about the three-way interactive effects between negative affectivity, conscientiousness, and job scope, we generated the three-way interactive model to satisfy our curiosity and uncover unexpected systematic patterns, if any. Model 4 in Table 3 shows that the three-way interactive term was marginally positive ($F=3.21, p<.10$), suggesting that negative affectivity and conscientiousness might reinforce each other when employees reacted affectively to job scope.

Finally, since curvilinear effects are common in social science research, we should re-run all models in Table 3 to account for the curvilinear effects, if any, of job scope (results not shown in this paper). We added "job-scope squared" and the curvilinear interactive terms into the models displayed in Table 3. All of the curvilinear interactive effects and the curvilinear main effects of job scope were not significant, with the exception of the three-way curvilinear interaction term, which was positive ($F=6.25, p<.05$). Thus, we found that conscientiousness, negative affectivity, and job-scope-squared interacted positively in determining employees' affective states at the workplace. However, there was no empirical evidence to suggest that the main effects of job scope were curvilinear.

5. CONCLUSION

The present study extended previous research on the effects of psychological factors on individuals' reactions to job characteristics (e.g., Fried & Ferris, 1987; Hogan & Martell, 1987; Tieg, Tetrick, & Fried, 1992; Champoux, 1978, 1980, 1992). We hypothesized that two relatively well-researched personality constructs, conscientiousness and negative affectivity, might modify the ways individuals perceived and reacted to the contrasting effects of job scope.

The supportive evidence obtained in favour of the moderating roles of conscientiousness and negative affectivity supported the contention that job scope might bear different patterns of relationship with job satisfaction depending on whether individuals were high or low on conscientiousness and negative affectivity. The results not only furnished the first evidence in favour of the moderating affective role of conscientiousness, but also lent support to the moderating effects of negative

affectivity on individual job outcomes (e.g., Brief, Burke, George, Robinson, & Webster, 1988), in contrast to Chen & Spector (1991).

We tested the moderating roles of conscientiousness and negative affectivity based on the person-environment fit model of stress (French, Rogers, & Cobb, 1974) and the temperamental perspective of negative affectivity (McCrae & Costa, 1991). The supportive evidence obtained above should not be taken to imply that alternative theories or models of job scope should be rejected. Instead, the empirical evidence should be taken as complementary to other more established explanations. For example, the thesis of an optimal level of activation within an individual, which is the basic tenet of activation theory and which has been used to justify a curvilinear relationship between job scope and stress (e.g., Xie & Johns, 1995), could well be a function of the individual's conscientiousness and negative affectivity. In particular, individuals high on conscientiousness may exhibit a higher optimal level compared with the low counterparts, and individuals high on negative affectivity may exhibit a lower optimal level compared with the low counterparts. Future research should ascertain the exact nature and extent of linkages between these personality dimensions and individuals' characteristic levels of activation. (An individual's characteristic level of activation refers to the level of activation at which the individual functions optimally, as suggested by Levi (1972)). One limitation of the present study was the small incremental changes in R2 obtained for the interactive terms.

However, the small figures were in line with previous studies of affective effects of job scope (e.g., Xie & Johns, 1995). Another limitation was the use of a single, cross-section sample. This prevented us from making causal inferences. Third, the use of a self-report, subjective measure of job scope might introduce common method variance in the data. We reduced this possibility by correlating the respondents' self-report job scope scores with job scope scores provided by 10 systems analysts acting as independent judges. The correlation was .89 ($p < .0001$).

Our position was therefore similar to the position taken by Fried and Ferris (1987), who asserted that "it is inappropriate to totally dismiss perceptual and correlational results as simply artifactual in nature" (p. 309).

Finally, since we did not find curvilinear effects of job scope on job satisfaction, our conclusions about the moderating impact of negative affectivity and conscientiousness would only stand in respect of a linear linkage between job scope and job satisfaction. The lack of support for curvilinear effects of job scope on psychological responses in the present research, in contrast to Xie and Johns (1995) and Champoux (1978, 1980, 1992), suggests that future research should look into circumstances and factors that may shape the patterns of the affective effects of job scope. One such factor could be occupational effects: while the present research focused on IT employees, Xie and Johns (1995) studied employees in a variety of industries and Champoux (1978, 1980, 1992), R&D and government employees.

Several other research questions should be investigated in the immediate future. First, given the relevance of negative affectivity and conscientiousness, researchers may want to know whether the three-way interactive effects between these two personality constructs and job scope are positive across situations. Although we did not have theoretical rationale to derive hypotheses about the direction of the three-

way interactive term, the results showed that the three-way interactive effects were positive. Future research should examine and specify the processes through which negative affectivity and conscientiousness may interact and affect job satisfaction. Second, would the results obtained in the present study (i.e., the IT industry in Pakistan) be replicable in other vocations, such as teachers, managers, salespeople, and police officers, as well as in other countries, such as the United States, Canada, Japan, China, and others? Third, would other personality constructs, such as work centrality, also exert moderating effects with job scope on job satisfaction? Finally, can the moderating effects of the two personality traits with job scope be generalized to job performance, absenteeism, and other employee outcomes? In conclusion, the present study has highlighted the importance and relevance of the two personality traits in individuals' reactions to job scope. Future research should look into the roles of other personality traits in this domain.

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STATISTICAL ANALYSIS OF THE TOURISTIC ACCOMMODATION CAPACITY AND ACTIVITY IN ROMANIA DURING 2000-2009

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ABSTRACT: *Tourism is considered and pursued in its development through a system of specific indicators, based on a standardized methodology for computing worldwide. Tourism indicators provide the necessary information and quantify the tourism policy, allowing the effects of these actions and measurement. This paper is a study using statistical methods, such as indices for the characterization of the Romanian tourism during the period from 2000 to 2009, the statistical analysis of the capacity and activity of tourist accommodation.*

KEY WORDS: *touristic accommodation capacity; types of establishments of touristic reception*

JEL CLASSIFICATION: *L83*

1. ESTABLISHMENTS OF TOURISTIC RECEPTION WITH FUNCTIONS OF TOURISTIC ACCOMMODATION CAPACITY BY STRUCTURES

To maximize tourism potential of natural and anthropogenic resources has created an infrastructure that is an adequate material base consisting primarily of accommodation spaces. Table 1 presents the tourist accommodation capacity and activity, by type of tourist reception, during 2000 - 2009 and reveals the dominance of hotels and villas. To illustrate the trend of tourist accommodation activity by type of tourist reception structures in the period 2000 - 2009 is calling on chronogram (figure 1). As can be seen from Figure 1, tourism development in our country generally has been a permanent upward trend, the size and structure was linked to the dynamics of consumer requirements. Absolute and relative indicators calculated with a fixed base or chains are presented in the table 2.

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Table 1. Establishments of touristic reception of functions of touristic accommodation capacity, regardless of ownership

Types of establishments of touristic reception	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009*
Total	3121	3266	3338	3569	3900	4226	4710	4694	4840	5079
Hotels	811	828	835	886	927	989	1059	1075	1104	1154
Hotels for youth	1	3	1	4	10	25	34	35	35	37
Hostels	2	7	11	15	21	33	41	44	46	60
Apartment Hotels	1	1	2	:	1	4	7	6	7	11
Motels	131	139	137	143	149	161	154	150	153	143
Inns	23	18	16	16	15	11	9	6	5	5
Touristic villas	801	746	669	676	691	716	742	708	718	744
Touristic chalets	161	158	140	138	132	113	111	104	110	117
Hunting chalets	:	:	:	:	:	:	4	4	6	6
Fishing chalets	:	:	:	:	:	:	1	:	:	:
Bungalows	265	270	259	265	279	305	298	266	264	265
Holiday villages	1	1	1	2	2	3	2	3	3	4
Campings	74	72	71	74	72	72	68	62	59	55
Touristic halting places	6	10	11	15	25	29	31	30	31	30
Touristic houselet units	66	60	58	60	53	52	53	49	50	46
School and pre-school camps	172	168	168	157	157	151	128	115	111	111
Urban touristic boarding houses	201	244	271	328	461	597	702	736	783	876
Rural touristic boarding houses	160	193	221	266	431	956	1259	1292	1348	1409
Agro-touristic boarding houses	240	343	461	515	461	:	:	:	:	:
Ships accommodation spaces	5	5	6	9	13	9	7	9	7	6
Other collective accommodation units	:	:	:	:	1	:	:	:	:	:

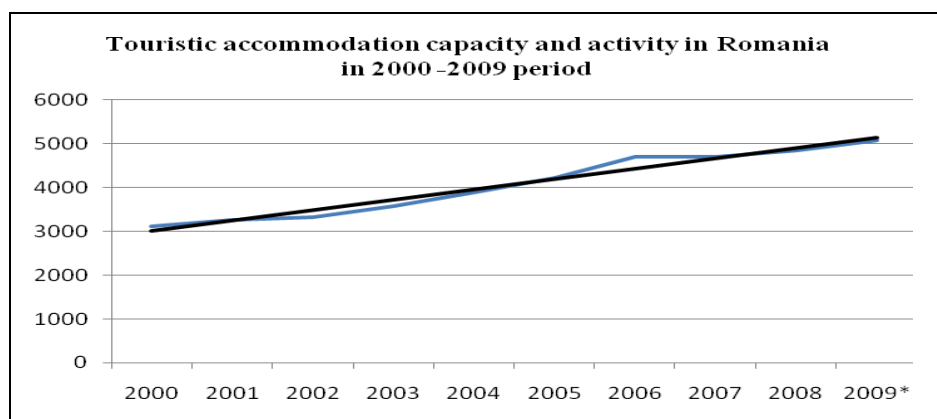
* *provisional data*Source: National Institute of Statistics – database Tempo online – www.insse.ro**Figure 1. Touristic accommodation capacity and activity in Romania in 2000-2009**

Table 2. Absolute and relative indicators

Year	The volum of establishments of touristic reception of functions of touristic accommodation capacity Y	Absolute changes		Index of dynamics		Rate of dynamics	
		with a chain base $\Delta_{t/t-1}$	with a fixed base $\Delta_{t/1}$	with a fixed base $I_{t/1}$	with a chain base $I_{t/t-1}$	with a chain base $R_{t/t-1}(\%)$	with a fixed base $R_{t/1}(\%)$
1	2	3	4	5	6	7	8
2000	3121	-	-	-	-	-	-
2001	3266	145	145	104.6	104.6	4.6	4.6
2002	3338	72	217	107	102.2	2.2	7
2003	3569	231	448	114.4	106.9	6.9	14.4
2004	3900	331	779	125	109.3	9.3	25
2005	4226	326	1105	135.4	108.4	8.4	35.4
2006	4710	484	1589	150.9	111.5	11.5	50.9
2007	4694	-16	1573	150.4	99.7	-0.3	50.4
2008	4840	146	1719	155.1	103.1	3.1	55.1
2009	5079	239	1958	162.7	104.9	4.9	62.7

Calculation of average indicators:

- the average of establishments of touristic reception with functions of touristic accommodation: $\bar{y} = \frac{\sum y_i}{n} = \frac{40743}{10} \approx 4074$

establishments of touristic reception with functions of touristic accommodation /year

- average absolute change: $\bar{\Delta} = \frac{\sum \Delta_{t/t-1}}{n-1} = \frac{1958}{9} \approx 218$

establishments of touristic reception with functions of touristic accommodation /year

- average index dynamics: $\bar{I} = n - \sqrt[n]{\prod I_{t/t-1}} = n - \sqrt[n]{I_{t/1}} = n - \sqrt[n]{\frac{y_n}{y_1}} \approx 1,02$

- average rate dynamics: $\bar{R} = \bar{I} - 1 = 1,02 - 1 = 0,02$ or 2%

Given these results, we can say that the touristic accommodation tourism had every year for the period 2000-2009 generally upward evolution, except for the year 2007, when there was a lower compared with the previous year with 16 units.

The establishments of touristic reception with functions of touristic accommodation had an average level of 3952 structures, from one year to the next level by increasing the average volume structures with 203 locations, which means a change in relative 1,02 times and an average annual growth rate of 2%. To see establishments of touristic reception with functions of touristic accommodation we used the structure diagram (Figure 2).

For the 2000-2009 period establishments of touristic reception were distributed on average, as follows: 967 hotels, followed by a total of 754 rural touristic boarding houses, 721 touristic villas, 520 urban touristic boarding houses, etc.

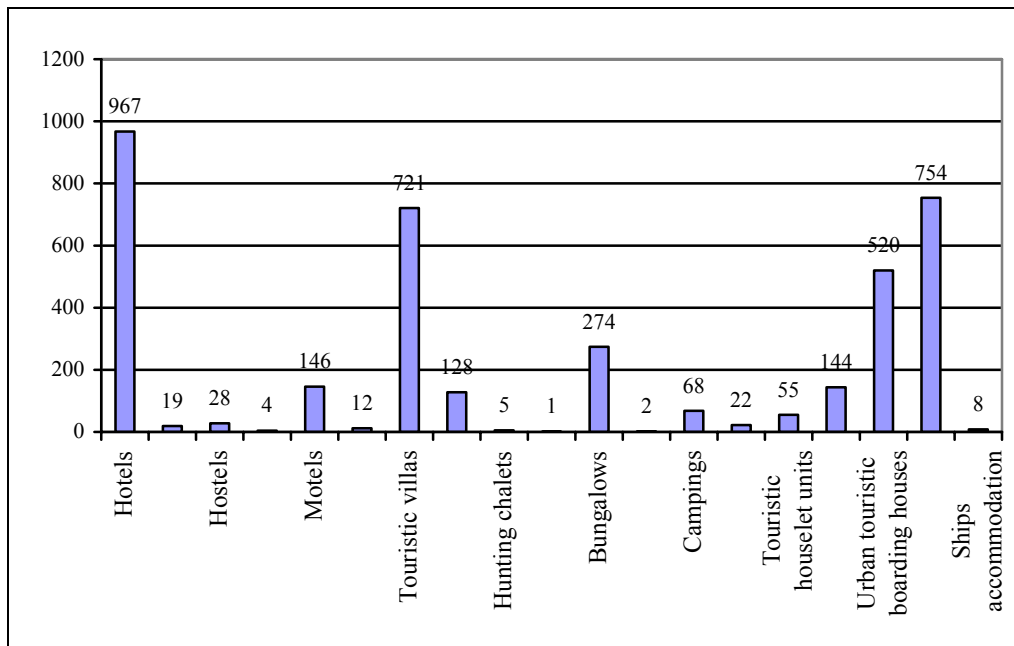


Figure 2. Average activity of tourist accommodation by type of reception

2. TOURISTIC ACCOMMODATION CAPACITY IN 2000 -2008

Existing places of establishments of touristic reception with functions of tourist accommodation on the types of structures are shown in Table 3.

Calculation of average indicators:

- average number of seats in establishments of touristic reception with functions of tourist accommodation: $\bar{y} = \frac{\sum y_i}{n} = \frac{2516485}{9} \cong 279609$.

existing places in establishments of touristic reception with functions of tourist accommodation/year

- average absolute change: $\bar{\Delta} = \frac{\sum \Delta_{t/t-1}}{n-1} = \frac{3757}{8} \cong 470$ places/year

- average index dynamics: $\bar{I} = n - 1 \sqrt[n]{\prod I_{t/t-1}} = n - 1 \sqrt[n]{I_{t/1}} = n - 1 \sqrt[n]{\frac{y_n}{y_1}} = \sqrt[8]{1,02} \cong 1,008$

- average rate dynamics: $\bar{R} = \bar{I} - 1 = 1,008 - 1 = 0,008$ or 0,8%

As regards the number of places in establishments of touristic reception with functions of tourist accommodation during 2000-2008 we can see in generally an upward trend in average during this period there were 279609 people. Level of places

in establishments of touristic reception with functions of tourist accommodation in the year 2000 (280005 places) was exceeded in 2005 (282661 places) with 2656 seats. On average the number of places in establishments of touristic reception with functions of tourist accommodation increased from one year with 470 places, which means a relative change of 1,008 times an average annual growth rate of 0.8%.

Table 3. Touristic accommodation capacity in 2000-2008 (number of seats)

Types of establishments of touristic reception	2000	2001	2002	2003	2004	2005	2006	2007	2008*
Total	280005	277047	272596	273614	275941	282661	287158	283701	283762
Hotels	157848	157703	157283	158776	160358	163451	167633	168736	168739
Hotels for youth	16	80	20	202	486	1487	2282	2059	2062
Hostels	91	285	305	424	694	987	1240	1463	1466
Apartment Hotels	:	:	:	:	12	118	138	121	127
Motels	6895	6602	6234	6173	:	:	:	:	:
Inns	6059	6076	5812	5795	5992	6186	5725	5614	5622
Touristic villas	836	526	422	378	385	292	278	186	188
Touristic chalets	19734	18585	16669	16464	16107	15157	16005	15333	15336
Hunting chalets	7972	7523	6176	6361	6215	5961	5803	5517	5520
Fishing chalets	:	:	:	:	:	:	57	57	60
Bungalows	:	:	:	:	:	:	15	:	:
Holiday villages	4617	4584	4584	4769	4854	4963	4698	4461	4464
Campings	36	36	36	56	56	266	110	160	163
Touristic halting places	28857	28029	29263	27598	26894	26568	26962	25006	25009
Touristic houselet units	263	729	785	877	1226	1485	1114	1152	1155
School and pre-school camps	6298	5501	5177	5354	4365	4227	4273	4120	4123
Urban touristic boarding houses	40149	38398	34964	32821	30198	28916	23227	20320	20323
Rural touristic boarding houses	3197	3758	4378	5670	8100	10910	12546	13429	13432
Agro-touristic boarding houses	1815	2188	2596	3272	5351	11151	14551	15448	15451
Ships accommodation spaces	1729	2560	3623	4238	4054	:	:	:	:
Other collective accommodation units	488	486	503	559	594	536	501	519	522

* *provisional data*

Source: National Institute of Statistics – database Tempo online – www.insse.ro

Number of tourists, the most representative indicator of quantitative, had a development in 2000-2008 period presented in table 5.

As can be seen in figure 3 number of tourists accommodated in establishments of touristic reception with functions of tourist accommodation has during 2000-2008 an upward trend. In the period 2000-2008 were accommodated on average 5493358 total visitors, of which distributed by type of receipt, so: in hotels: 4260803 tourists, in motels: 216 625 tourists, the inns: 4591 visitors, the villas: 207,167 tourists, tourist hostels urban: 215 771 tourists.

Table 4. Dynamics of existing places of establishments of touristic reception with functions of tourist accommodation on the types of structures in 2000-2008

Year	The volume of establishments of touristic reception of functions of touristic accommodation capacity Y	Absolute changes		Index of dynamics		Rate of dynamics	
		with a chain base $\Delta_{t/t-1}$	with a fixed base $\Delta_{t/1}$	with a fixed base $I_{t/1}$	with a chain base $I_{t/t-1}$	with a chain base $R_{t/t-1}$ (%)	with a fixed base $R_{t/1}$ (%)
1	2	3	4	5	6	7	8
2000	280005	-	-	-	-	-	-
2001	277047	-2958	-2958	98.9	98.9	-1.1	-1.1
2002	272596	-4451	-7409	97.4	98.4	-1.6	-2.6
2003	273614	1018	-6391	97.7	100.4	0.4	-2.3
2004	275941	2327	-4064	98.5	100.9	0.9	-1.5
2005	282661	6720	2656	100.9	102.4	2.4	0.9
2006	287158	4497	7153	102.6	101.6	1.6	2.6
2007	283701	-3457	3696	101.3	98.8	-1.2	1.3
2008	283762	61	3757	101.3	100.0	0.0	1.3

* provisional data

Source: National Institute of Statistics – database Tempo online – www.insse.ro

Table 5. Tourists stay in establishments of touristic reception with functions of tourist accommodation, by types of structures

Types of establishments of touristic reception	Property forms	Years								
		2000	2001	2002	2003	2004	2005	2006	2007	2008*
UM: Number of persons										
Total	Total	5109444	4920129	4874777	4847496	5056693	5638636	5805096	6216028	6971925
Hotels	Total	4073748	3881859	3823618	3830398	3982591	4339458	4477936	4725448	5212170
Hotels for youth	Total	:	660	2621	2496	5177	18620	33800	52547	61388
Hostels	Total	:	4669	14502	24845	28245	42344	35596	37519	50233
Motels	Total	154685	168674	191344	200783	200657	243682	238794	255370	295644
Inns	Total	6967	3527	3670	4049	3952	4113	4084	5502	5456
Touristic villas	Total	310981	217540	174956	142562	151739	182876	202483	231311	250059
Touristic chalets	Total	123774	116574	104049	84676	92972	76501	64480	70993	91945
Hunting chalets	Total	104689	93104	100641	94576	95243	107022	70155	85778	93852
Touristic halting places	Total	:	8176	6839	4080	5752	14785	17079	15388	14933
Urban touristic boarding houses	Total	95239	89328	106129	126109	163925	235877	310035	363664	451640
Rural touristic boarding houses	Total	:	15596	21244	32201	47444	96823	170164	217020	288508

* provisional data

Source: National Institute of Statistics – database Tempo online – www.insse.ro

Therefore, the largest proportion of the number of tourists stay on average for the period 2000-2008 had a hotels (84%), followed at a distance from hotels, villas and tourist travel urban hostels (4% each).

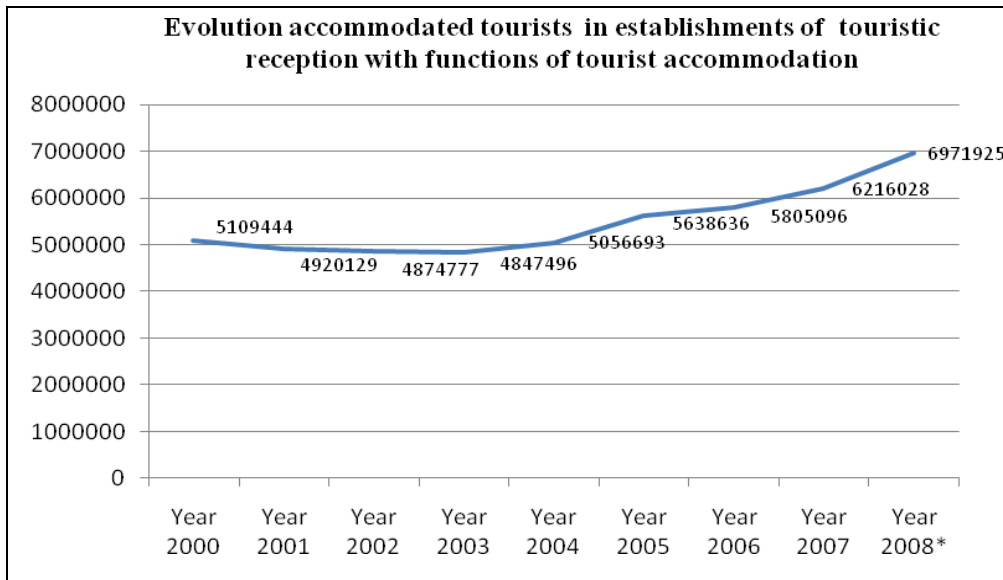


Figure 3. Evolution accommodated tourists in establishments of touristic reception with functions of tourist accommodation

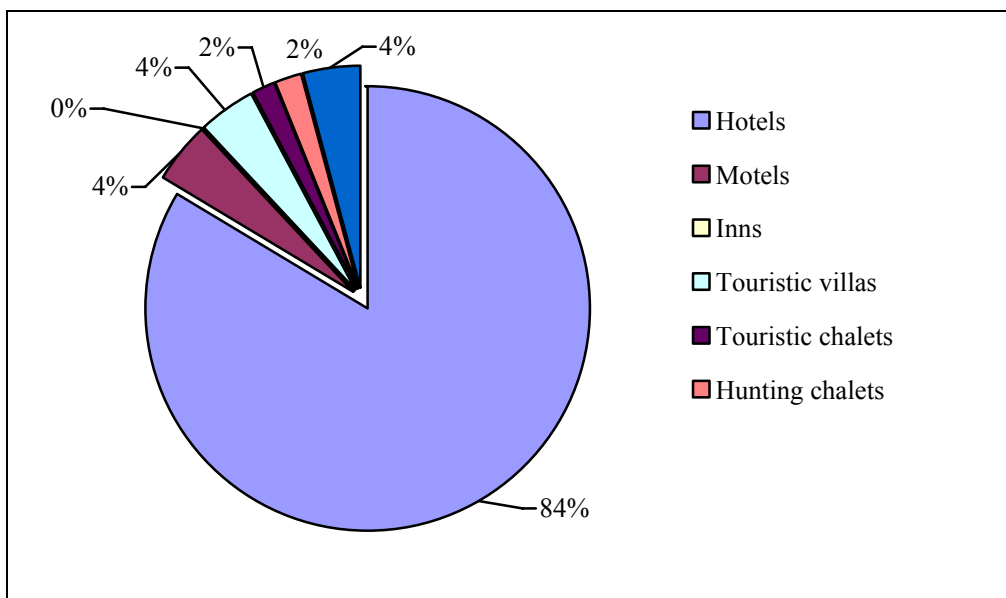


Figure 4. Distribution of tourists accommodated in establishments of touristic reception in 2000-2008

4. CONCLUSIONS

During 2000-2009 the evolution of tourism in our country in general has made a permanent upward trend. Establishments of touristic reception with functions of tourist accommodation had every year for the 2000-2009 periods generally an upward trend, except 2007.

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PREMISES OF THE QUALITY MANAGEMENT IN EDUCATION

MARIA BUȘE *

ABSTRACT: *The paper deals with the concept of quality, in general and the manner in which it is perceived in education. For the educational process, quality is not produced exclusively by school, as a provider of educational services, but by the beneficiaries and the purchasers of education.*

KEY WORDS: *quality, competence, evaluation*

JEL CLASSIFICATION: *M12, M41*

1. INTRODUCTION

The education system "represents, for all countries, one of the most important services from the category of those covered by the state budget. Its main purpose is to prepare the qualified professionals necessary for all the branches of the economy, to achieve the permanent education and qualification of the people, to stimulate and facilitate the process of general training, thereby contributing to the development of the society, and to the continual growth of the economy. The importance given to education in the already developed countries is also demonstrated by the fact that the in U.S., for example, in the universities, there is a larger permanent staff than in the agriculture" [1].

In the department of education, the researches regarding the quality began in the early twentieth century. The title of founder of the field research, „The measurement of the quality of the programs and institutions" belongs to Ralph Tyler, who formulated, in 1950, the principles of evaluation of the effectiveness of a training program.

The concept of quality was "imported" in the education system from the productive sector, and the notion has been frequently used over the past twenty years.

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2. QUALITY- A COMPLEX CONCEPT

Despite the usage of an apparently consensual terminology in the teaching literature, quality must be defined each time, because the authors can either refer to the quality of the functioning of the institution, or to the quality of the educational system in general, or to the quality of the process of learning.

In the professional works, they highlight the difficulties in providing a unanimously accepted definition of the quality of education, a difficulty caused by several reasons. Among these, there are emphasized the heterogeneity between educational institutions, the specialties, the assumed roles, the relativity of the concept according to the experience of those who formulate it, the diversity of cultures in which they originate. Despite these difficulties, in recent years there have been made efforts to draw the contours of the concept of quality in the education system” [2].

These efforts led to two categories of approaches: one, regarding the definition of quality in terms of education outcomes and another, regarding the quality in terms of the processes that affect/bring quality, that is, the organization and the management of the educational institutions, the value of the programs and the teaching curricula, the level of accomplishment of courses and other educational materials, the didactic and pedagogical capacity of the teaching staff, the effects of the scientific research.

Based on these approaches, at present there are at least six definitions of the quality in the education system:

- *the quality as excellence*, seen in relation to the performance of the existing standards;
- *the quality as perfection*, a concept that moves the centre of gravity from the standards of the results, characteristic of the first definition, towards the standards of the processes;
- *the quality as the aspect according to the purpose*, regarding the quality in relation to the mission of the institution providing the education;
- *the quality as a value for the money*, assessed in terms of the recovery of the investment made by its beneficiaries;
- *the quality as the transformation of its beneficiaries*, seen as the strengthening of the responsibility of the students towards the learning process;
- *the quality as a retributive control*, or a reward for the achievement of a certain level.

Throughout human history, the concept of "quality" has undergone various changes, but, irrespective of the historical moment, by "quality" they understood the extent to which those interested in somebody or something were satisfied (by that something or someone).

Therefore, we can speak of the quality of a product, of the quality of a person or the quality of an organization as an extent to which those interested in these get satisfaction in relation to them. Moreover, "quality" was incorporated into the concepts related to the scientific management since its emergence.

Even regarding the scientific management, the concept of "quality" has undergone several changes, evolving from an attribute given to a product, to a grade of competence given to the organization. Thus, as a natural course, in the last part of the

twentieth century it began to take shape a separate field of scientific management - quality management.

In order to correctly appreciate the concept of „quality” of the education system, we should reunite the approaches and the definitions associated with it, and on this basis to establish the multivalent content of this concept.

Quality, in this perspective, is a state of the education system, whose results correspond to certain standards that ensure for its beneficiaries favourable employment opportunities in the labour market, as they quickly fit the high requirements of the activity at the working place, even opening a new horizon for how to approach and solve the problems of the special fields in which they work.

The high quality of the educational process is directly conditioned by the structure of the curriculum plan and the different teaching programs, by the correspondence between them and the latest achievements in the field in each stage of historical development, by the interdependence between these programs and the manner in which they are achieved through courses, seminars and evaluation methods with real-life requirements, of the existing social-economic practice. Thus, the message of the concept of quality remains its major importance for the users of quality policy, the fact that the teachers and the students are the ones who realize it, that learning effectiveness depends on the commitment of both parties in relation to the rigors imposed by this concept.

In practice, it is much more important the manner in which each participant in the process of education defines the quality of the activity that he provides. In the European countries there are, indeed, specific definitions on the quality of the education process, and the universities, individually, have developed specific definitions, depending on the mission they have assumed, on the resources that they possess, on the demands of the beneficiaries of education.

In Romania, the law number 87/2006, for the endorsement of the Government's Emergency Ordinance number 75/2005"[3] presents a technical and regulation definition, through they ensure common and consistent understanding of the term according to which "The quality of the education consists of the assembly of characteristics of a study program and of its provider, through which the beneficiaries' expectations are met, as well as the quality standards”.

The national framework for ensuring the quality in Vocational Education and Training operates with two distinct definitions. [4]: one issued by the European Framework for Ensuring the Quality in Vocational Education and Training, according to which "*the quality in vocational education and training is not only technical, but it depends on the specific objectives achieved in different units of time* "; the second definition adopted within the EU Phare programs to modernize the vocational and technical education brings inputs regarding the quality as "*a degree of satisfaction in relation to the sphere of education and vocational training, established according to specific standards and to the achievement of a level of expected excellence, realized by the beneficiaries and by other stakeholders*”.

The fact that one can attribute several definitions to the quality in higher education emphasizes the multi-faceted character of this term. Most researchers

consider that the concept of *quality* can be best represented through the terms of *compliance* or *adjustment to objectives*.

We can discuss, therefore, the existence of at least two elements:

- the reference model or the reference standard;
- the object or the process whose quality is determined in order to assess the degree of correlation with the standard;

After signing the Bologna Declaration in 1999, Romania became a member of the "Bologna Process" which aims to set up, until 2010, the European Higher Education Area through new changes and transformations.

The assurance of the academic quality is one of the main objectives of the Bologna Process. The reality is dependent on the correspondences that are established between the meanings of academic quality and the transformations taking place in higher education system.

Quality must be defined in an instrumental manner, in order to be evaluated. The approaching of the concept of quality together with the notion of consumer / customer, make it appear as a multidimensional concept, which can be evaluated from the perspective of the different users / customers.

The role of consumer / customer in higher education can be assigned to: the state, the entire society, the students, the employers, the academic community, the international partners.

We will try to follow the dimensions of the quality from the perspective of different consumers / customers:

- from the perspective of the state, the concept of quality may refer to the means of administration of the state budget resources (the allowances granted, for an equivalent student, through the institutional contracts), according to some indicators of quality.., revenue management, the investments in university development, the existence of an internal quality assurance mechanism **or** to the modality of approaching university as a national component or good (dimensions: the weighting factor of the teachers with scientific degrees and titles, the weighting factor of the teachers who actually participate in scientific research, the quality of the masters and doctoral programs offered by the university, etc.);
- from the point of view of the students, quality may be defined by: the professional abilities of the teachers closely linked to the university's curriculum quality (the quality of the master and doctorate programs offered by the universities); the quality of the information services and the training modalities; the psychological climate within the universities especially given by the quality of teacher-student relations; the quality of the methods used to evaluate the students, the quality of the accommodation conditions within the campuses of the universities, etc. and last, but not least, the quality and quantity of educational facilities;
- from the perspective of the employers, the quality is mainly given by the competencies, the qualities and the qualifications awarded to the graduates;
- from the perspective of the society, quality is determined by the process of social inclusion and the competence of the graduates;
- from the perspective of the academic community and the international partners, the quality dimensions mainly refer to: the academic management (human resources

management); national and international cooperation – the existence of specific centres of excellence; the image of the university, and its ranking among all the other national universities; mobility programs for both students and teachers;

In conclusion, by directing the education process towards quality, the trend has highlighted a very important concept – the competence [5].

2.1. Quality management in education

"Quality management" as a science has recently appeared. The concept could be defined (considering the French definition of ~management~) as the way in which the satisfaction offered by an organisation is being managed. From this perspective we could say that the quality management influences most of the processes in an organization having a direct influence in defining, documenting and applying the internal norms referring to the different organisational processes, and it influences the way in which the staff puts these norms into practice and last but not least it guide the way in which the employees perceive and represent the reality. As any science, the quality management relies on a series of principles which set the main directions which an organisation has to follow in order to offer the maximum of satisfaction to the ones interested in its results.

The changes in the higher education from Romania and those from entire Europe and other parts of the world where various and radical and also continuous. In Romania from the beginning of the year 1990, there have been founded the first private universities, and the number of public universities, faculties or new study programs, specializations have grown very fast.

The educational management creates its own content by taking over and capitalizing the concept created from the economic, sociologic, psychosocial perspective, and it relies on education and school, becoming a distinct psychosocial activity from a qualitative point of view.

Therefore, the educational management can be considered „that scientific, pedagogical discipline, elaborated with the help of a interdisciplinary strategy, employed in the study of events which come in the decision of organising a determined pedagogical activity and in managing the educational programs”. Therefore, premises are created for a *global management* (which refer to the framework of elements approached in their functional-structural interdependence), *optimum* (managing the system by a maximum capitalization of the resources), *strategic* (the long term development of the system by the ongoing innovation of its structures).

By processing the function of management on the level of the resources specific for the educational system and process, modern pedagogy identifies the following *functions* for the training management:

- planning –organizing the education ;
- orientation – methodological guiding of the education process,
- regulating function – self-regulation of the education system and process.

Planning-organizing function of the educational system involves the efficient capitalization of the human, material, informational resources through the „reflection” on the future action (planning), for prospective purpose (strategic) and improving

purpose (tactic), as well as by creating some decisional structure and tools which facilitate the connections between departments.

Methodological-orientation function of the educational process focuses on evaluation and according to this on the evolution of quality to the maximum level of the operational dimension of the educational system and process, and the training of the professors, as well as the pedagogic research which is required for the continuous improvement of the instructive-educational activity.

The norm of the educational management is concentrated in a framework of principles required for the social effectiveness of the training activity - permanent personality development, on all levels of the system and educational process. The most important aspects are:

- The principle of global strategic management of the educational system and process;
- The principle of efficient management of the educational system and process
- The principle of hierarchical management of the system (is focused on the interdependence of the functions and structures on a social level and it points out the priority of the managerial functions according to the managerial structures;)
- the principle of the complex management of the educational system and process (points out the unitary character of the management).

This conceptual short overview of the educational management points out that this type of management has a well defined evolution in the context of socio-human managerial disciplines, and it is materialized in the context of the managerial disciplines, by content and the factors involved.

The scientific character of the educational management results from the educational scientific management results from the performing interpretative horizon where education is investigated, managed, evaluated, regarded as a system and a design and accomplishment process. On the level of the functional triad represented by the above-mentioned functions, educational management gains the attributed on the total quality management. With the help of the functional triad, the quality planning is accomplished and it can also be controlled and continuously improved.

Being part of the quality management, the educational management becomes a future scientific tools, having a performance and efficiency, and a relatively new paradigm of approaching pedagogy, a methodological step needed to acquire efficiency in the training and development activity of the human personality.

The educational management represents the theory and practice, the science and art of design, organization, coordination, evaluation, regulation of the elements of the educational activity(not only of the resources), as a free, integral, harmonious development of the human individuality for the autonomous and creative affirmation of its personality, according to the ideal set on the level of the educational policy.

The educational management would represent an optimum-strategic global approaching methodology of the educational activity, but not a way of managing the basic unit of the educational system, applicable on the level of the complex scholar organization.

In what the educational process is concerned as an integrant part of the activity of delivering services for the society one can start from the analysis of a basic concept: QUALITY:

The management responsibilities are:

- to provide the efficiency in what the quality and the development of the curriculum is concerned;
- to offer active support in the development and supply of the quality of the educational programs;
- to meet the needs and expectation of the internal and external factors;
- to develop and maintain efficient partnerships with the interested external factors;
- to provide the management of the human and physical resources which is required in order to accomplish the mission, which means: to offer a safe and harmonious learning environment, to provide learning places which should meet both the individual and the collective needs, to provide teaching resources and methods which allow the access of all students, to employ staff according to recruitment and selection criteria and to provide access to lifelong training programs.

Management indicated a certain mentality, an art of leading and training human resources.

The evolutions from the previous years on the international and national level have pointed out the need of building a national quality management. In the educational system the quality of the educational process has become a national priority.

In order to analyse the quality of an educational institution and of the educational services one should first understand the concepts with which they operate: quality, criteria, quality indicators, standards, descriptions.

The concept of providing the *quality* has been used in economy, and in organizations having as a main goal their profit: to produce and sell as much as possible, functioning in a strong non-competitive environment. *Quality* is produced by the one who supplies a product or a service on the market, but it is defined by the customer and not by the producer.

Quality represents an intrinsic attribute of any material or immaterial object which respects the degree of complying with the requirements of the beneficiary.

The quality of an educational institution is determined by the quality of the processes and the quality of the educational services offered.

It is important to mention that for the educational process, quality is not produced and defined exclusively by school as a supplier of educational services but by beneficiaries and clients of education.

Both beneficiaries and customers, have to be permanently consulted and their satisfaction to be a permanent reason of preoccupation for the educational institution so that it could generate a competitive system.

The triad the quality of the organization, the quality of the processes and the quality of the educational services has some characteristics which make them work together not separately.

The quality of the organization involves: the organizational culture, the structure of the organization, facilities, human resources management; the quality of the educational process involves the ways of using the resources, the existence of the procedures, information, process organization etc., and the quality of the educational services manages the degree of fulfilling the requirements of the customers, and those of the internal and external ones.

If the above-mentioned objectives are met in the didactic process, the educational activity is provided along with a multitude of services specific for the educational units. The quality of the educational process relies on the quality of these three components.

Offering quality is a major problem in the relations among university, being an important institutional activity in accomplishing their mission as a privilege of the competitiveness and compatibility as an expected result of the educational and research process.

The relevant institution and partners are those responsible for the definition of the policies, systems and procedures of providing quality. These vary, in the professional education and training system, from one sector to another, according to the structure of the society, the specific contexts and the institutional frame. It is necessary to improve the transparency and coherence of the policies and practices in the field of providing quality.

In the last period the increased interest towards providing quality is explained by:

- the quantitative growth of the institutions and students;
- the increased interest of the society towards all the fields of the social life and towards higher education;
- the emergence of new educational programs, which stimulate the needs for the well prepared specialists.
- the internationalization of the higher education and of the academic mobility;
- the problem of quality identifies :
- the value of the university education for the society;
- the democratization of the education;
- the need for diversification ;
- the applicative character and its connection to the social-economic practice;
- the responsibility of the higher education in the entire educational system;
- the openness towards reforms and innovations;
- the interdisciplinary and continuity of the studies ;
- planning and human resource management;
- training of the teacher and the level of their education;
- providing mobility and international cooperation;
- teaching material and academic support for development etc.

Due to the fact that there is no institutionalized system for the training of the managers, the main aspects of the academic management will be to improve the mechanisms from the managerial structure, in making the managerial practice

professional and building a training and development system for their competences in this professional field.

According to the types of reasoning of the managers regarding the orientation of the educational institution towards the organizational quality, there can be two types of institutions: a conservative educational institution or an innovative one.

The difference appears in the way in which the quality of the educational institution is perceived: within the school in the results of the didactic activity, the students with their gained knowledge and the facility of getting diplomas or the living conditions and the financial bodies according to the expenditures of the available resources; or there may be a process where the institution has to constantly adapt to the new, and to be involved in the improvement of its processes and services.

Table 1. Typology of the educational institutions

Conservative educational institution	Innovative educational institution
1. The manager refuses to introduce a quality system.	1. Managers which promote the introduction of some quality systems and which identify from the comparison with other institution ways of improving the performances.
2. The education institution is insensible to the social modifications, market requirements.	2. The institution is innovative, sensitive to the modifications of the society and the market requirements.
3. The didactic procedures and techniques are set according to the tradition and experience of the teaching staff.	3. The teaching procedures and techniques are elaborated after a reporting to the performing international institutions and the experiences gained during the training courses.
4. The lack of the motivation system of the teaching staff.	4. Motivating the staff according to the individual and organizational performances.
5. The management staff is oriented to give advice and take decisions.	5. The management staff is receptive to the proposals of the others.
6. Deficient communication, decisive opaqueness, focusing on rumours and not on information.	6. Efficient communication system, efficient transparency.
7. Focusing on budget funds.	7. Training and attracting extra-budget funding resources and considering this aspect an essential responsibility for the entire staff.
8. Resistance to change.	8. Procedures for the stimulation of creativity.
9. Incompetent management staff, uninterested.	9. Competent management staff and open to experience.

At the same time, an important element in the way of approaching management is the customer, that is the receiver of the material product offered by the supplier.

Table 2. Features of the customers

Types of customers	Categories of customers
1. External	1. Tax-payers 2. Organizations and companies which employ graduates 3. Organizations and companies which take advantage of the services of the education institution (micro-production, educational services for the community)
2. Internal	1. Managing the institution 2. Teaching staff 3. Auxiliary and administrative teaching staff. 4. Students

Putting into practice a quality oriented strategy is accomplished through the quality management defined as a framework of the activities of the management function which determined the policy in the field of quality, a policy of orientation towards the customer with the close observance of the objectives and responsibilities which are implemented in the quality system by means as: quality planning, quality control, providing quality and improving quality.

Promoting a customer oriented policy in a quality system can be accomplished by the development of some specific procedures of identifying the needs of the customers by elaborating some standards and procedures as well as by measuring the degree in which the results obtained in the educational institution are according to the set objectives.

In the “customer orientation” policy it is necessary to set some concrete consulting – participation procedures of the students for the elaboration of the strategic targets, concrete programs and actions, and the concrete functioning of the school, taking important evaluation decisions, etc.

The systems and procedures for the quality provision usually refer to:

- *Designing and planning the development of the university*: how the strategic targets and development strategies are set, and which the responsibilities, mechanisms are and decisional procedures, who participated in taking the decisions, how are those decisions made available for the community and how the consensus around these strategic targets is created, etc.
- *Implementing and supervising the programs*: who answers and who participated, what are the supervision methods and tools and the feedback and how the participation of the “interests bearers” is provided, how their feedback is taken over.
- *Evaluation of the way in which the institution works, revising the projects, programs*: the methods, tools and evaluation procedures of the programming documents and who participated in them, the warning mechanisms.

The quality evaluation system has to be created in a different way. First of all, it has to provide the accomplishment of the main functions of evaluation that are:

- the evaluation has to be optimal, to impede the emergence of the major malfunctions and at the same time to clearly show what went right or wrong in the past activities;
- the results of the actions have to be known by students, parents, teaching staff, managers, community, so that all these interest groups could judge if the “investment” (not only the financial one) has led to the requested impact and if it is worth continuing it. This aspect proves if the feedback for the significant interest groups has been achieved.
- revising and improving the educational policies and strategies on the level of the universities so that these could serve the mission. In the past years, in Romania and on the level of the European Union, the need for a culture of self-evaluation is becoming more and more important and encouraged through the educational policies.

The self-evaluation is considered to be a fundamental dimension of “the organization which learns”: the external evaluation is often inefficient in a society where the change is extremely fast and unpredictable but it does not lack importance.

The international practice uses various methods of providing quality in education: auditing, evaluation, accreditation [6].

2.2. Higher Education Accreditation

Accreditation is defined as “the way of providing the quality that certifies the observance of programs of study and activity standards by educational organizations. Accreditation is proposed and granted according to the results of the external assessment process developed by ARACIS (Romanian Agency for Quality Assurance in Higher Education), as acknowledgement regarding the academic quality of a higher education institution or of an educational organization previously authorized for temporary activity and that complies with the minimal requests of performance standards and indicators regarding quality of education ...” [7].

It is absolutely necessary to invest as much confidence as possible in Romanian universities, whether public or private ones, because they provided an increase in the number of university graduates under relatively underfinancing circumstances, embracing, although slightly, present-day important fields of activity.

The role of accreditation is to certify if a certain higher education institution can be granted a status with effects either upon the authorization of certain programmes, or upon the students.

The external evaluation of results in education is one of the processes that ensure quality in education.

Since education means value and knowledge has useful value, there can be drawn a parallel between what quality means in mainly economic international standards and how these standards were forged to be reduced to the Romanian education.

ISO 9000 is the collection of international standards, independent of the characteristics of a sector, describing the elements the quality system should comprise,

without specifying the modalities of implementation of these elements (which is a matter of the specificity of each organization).

In practice there are used three terms in defining quality:

- drafted quality – desideratum;
- manufacturing quality – processing;
- delivered quality – demand of the market.

Product quality is created in the manufacturing process, but ends with the consumer, so that the producer's interests of and consumer's expectations are two independent aspects, linked together by the degree of satisfaction.

Going back to the theme of quality in education, it is noted that the Law of quality of education shows a fragmented approach to quality; moreover, it lacks an articulated system design because: it is defined the quality of the project, but it lacks the manufacturing quality (schools and teachers, but also management); it also lacks delivered quality (the degree of social utility of the product of school and society's interests).

While the manufacturer's point of view is expressed, the consumer's is not even mentioned. However, the legislator has not questioned himself in advance if the community (ultimately graduates) agree with that quality of education? Does it meet their needs, whether temporary ones? Is it a reliable product?

Obviously, these rhetorical questions cannot be answered immediately, but they define the way in which the legislative subsystem operates: superficially, ineffectively and sufficiently. Unfortunately, the problems regarding education quality, as they were solved by the EO no. 75/12. 07. 2005 do not stop here.

Quality should be first assessed by the Ministry of Labour, by means of (all types of) labour coverage statistics, staff turnover, the coverage degree of qualified personnel in the field, professional reorientation costs, unemployment for each professional category etc. if we were to develop an objective action! Quality in education is the ultimate expression of expectations, if this is the first definition taken into account (there is also the definition according to which quality is the lowest cost for a given use).

A prerequisite of quality is the decentralization of education, represented by the transfer of authority, responsibility and resources from the central to the local level. The fields of decentralization are: curriculum, human resources, management and leadership and, last but not least financing.

The decentralization of education is not an end in itself, it is part of national decentralization strategy and aims to create an educational system organized, administered and financed according to European principles regarding the provision of the quality of the educational process, free and equal access of all young people to education, that is, adapting the educational offer to the interests and needs of the direct and indirect beneficiaries.

Decentralization should not cause imbalances and distortions in organizing, directing and supporting the national education system. The decentralization of decision does not exclude, but involves developing the monitoring, control and evaluation system, both by the local community and by government institutions and professional bodies.

Assuring the quality of education and educational services is a long term investment with definite repercussions on the quality of life and work. Thus education quality becomes the most important condition for improving professional employment, social cohesion and not least economic competitiveness.

Quality providing systems are, as we have already seen, set nationally to ensure education and training improvement and accountability. Their purpose is to increase the efficiency and transparency of supply at all levels, thus promoting mutual trust, acknowledgement and mobility both within and outside the country.

Quality providing involves achieving the following objectives [8]:

- a) establishing a system of internal and external assessment;
- b) continuously assessing the products (graduates, research, etc.);
- c) improving standards of learning;
- d) training educational staff based on the principle of compulsoriness of such activities, of the specific materializations of the university academic staff training and integration of educational research (active research) as an approach for the training of trainers in teaching;
- e) developing counselling and guidance for students;
- f) focusing on long-term results and not on performances used exclusively for academic purposes;
- g) re-drafting institutional criteria and institutional performance standards, assessing university specializations and curricula and classifying them;
- h) increasing exigency in promoting teachers, as real requisition induces a hierarchy of values in education, an emulation of the process of scientific research and classroom teaching. Establishing quality criteria generally applicable and specific, which allow a reappraisal of values in Romanian education;

Providing quality regards education programs as well as learning outcomes, but does not guarantee the improvement of quality, though offering substantial support to education providers. Therefore, this remains the responsibility of education and professional training providers.

3. CONCLUSION

Priority in terms of restructuring and improvement of higher education based on skills is represented by the elaboration and development of the national qualification system in higher education (National Qualifications Framework and Quality Assurance in Higher Education) and involve a number of actions both at the system level, and provider level (e.g., the implementation of quality provision standards, adapting curricula to the qualifications of the National Qualifications Framework in Higher Education).

Interaction among universities, business community and research and development sector, particularly through the development and strengthening of partnerships, will be used as a tool to increase the response capacity of higher education to changes occurring in society, to foster economic competitiveness and innovation and to promote education, skills and entrepreneurial competences. To meet the requirements of the knowledge-based society, it is necessary to focus on actions

aimed at developing postgraduate education offers (to support the accumulation of new knowledge and increase skill levels of human capital) and on actions that ensure strong basis for the increase of human capital in education and professional training (e.g. pedagogical Master Degree studies).

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MODALITIES OF NON-FINANCIAL MOTIVATION OF EMPLOYEES WITHIN ORGANIZATIONS

RADU CIORBAGIU-NAON*

ABSTRACT: *The main objective of this article is the research regarding the modalities of non- financial motivation of the employees in organizations. The scientific research started from the necessity of theoretically explaining this relatively new concept, used mainly by the terminology of the managers, human resources specialists and specialists in staff motivation. Thus, by using the research methodology based on investigating and analyzing the research data, I have identified and synthesized the main non-financial rewards, which may be administered by the organization management to its employees to stimulate their loyalty and improve their performance.*

KEY WORDS: *non-financial motivation; organizations; employees' development; loyalty professional performance*

JEL CLASSIFICATION: *M12*

1. MODALITIES OF NON- FINANCIAL MOTIVATION

Non-financial motivation means on one hand using other means than financial rewards to stimulate the employees' loyalty, their active involvement, performance raising and reaching the aims of the organization and, on the other hand, it is formed of all those ways of rewarding and stimulating that do not directly involve sums of money offered to the employee.

The current economic context brings to light, more than ever, the focus of the organizations on the cheaper methods and techniques of motivation, even if it means reducing the number or a more rigorous selection of the people who will benefit from this type of motivation.

When it comes to motivating staff in order to get better professional results, money is the first option. For many years, bonuses and salary rising were the solutions

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the managers used to keep the standards and the team. Such a routine, however, cannot be a long-term one; therefore, the managers are looking for new ways of motivating their employees.

Within the organizations, the more the employees are motivated and willing to act, the more developed and efficient the activity becomes. The human resources department and the manager have as their main purpose motivating the employees, and when money is out of the question, the solution could be the so-called “learning experiences”: team-building, workshops, feedback, communication, enthusiasm, setting objectives, analyzing the strengths and weaknesses, practicing and ability training. By all these the employee feels that he belongs to the group and is valued.

The strategy of the manager should be based on the transition from the external motivation (money, bonuses) to the internal one (inner motives the employee may have in order to act). For many employees, the process is not a simple one and it is necessary that the transition should not be very sudden.

It is wise to still continue using external stimuli, other than money. We could speak about the leaders’ capability of persuading, communicating verbally or non-verbally, offering models to inspire and motivate.

The employee becomes easy to motivate when the organization already has a strategy, when clear objectives and deadlines are settled, and they start to be reached. The employee must feel, as soon as possible, that what has previously been told is really happening. Otherwise he feels de-motivated.

Apart from the external factors that can encourage a person to contribute to the professional performance of an organization, there are also innate abilities which play a stimulating role. Each person has feelings of inferiority and implicitly the desire to improve, to become better.

Psychologically speaking, the most powerful inner motivation belongs to those who wish to compensate an organic inferiority (defect or lack) or those who wish to obtain power. There is also a type of motivation that all people share, that of fulfilling basic needs: the need to belong to a group and be significant, valued. Human beings have got a natural tendency to join other people and this factor permanently motivates them.

Among the most efficient motivational techniques we can mention the managers’ active listening to their employees and providing clear feedback in order to clarify the tasks or to assess the results.

Some other modalities used in Romania are job enlargement with new tasks of similar difficulty or complexity as well as job enrichment with new tasks different in terms of competence and responsibilities.

The most used modalities to motivate are: the development of the “management by objectives” and the agreement between the employee’s objectives and those of the organization.

Continuously promoting an efficient communication between the manager and the employee in order to clearly understand the tasks and correctly assess the results is another way of motivating employees. According to Anda Racsa, another modality used in Romania in order to motivate employees is delegating clear and precise tasks, naming the precise performances to be accomplished, the employee being thus trusted.

The management of the organization has to take into account the employees' preferences when choosing the motivation modalities, and we will further try to present the main non-financial motivation used by organizations.

Fringe benefits: gift and food vouchers. In Romania, gift and food vouchers are on top, a type of benefit preferred by both the organizations and the employees, being an important motivational and rewarding instrument for the employees.

The reasons for this are well-known: the sums for such vouchers are deductible and tax-free both for the employer and the employee, and they can be used nationally.

Apart from the economic advantages, the food vouchers are accompanied by a series of logistic and administrative aspects which contribute to their efficiency in the strategy of rewarding and motivating employees. The easiness of their administration and the additional benefits are more and more important for the Romanian organizations.

Thus, the order and the systems facilitating their administration have been developed by customized programs for each customer organization (either via personalized informational programs or via internet) and by doing this, the organizations have instruments to gather and interpret data referring to the order, the calculation and the fast transmission of the orders and the analyses of the order history.

The internal distribution of the food vouchers is much simplified by delivering them under the form of individual coupons for each employee. What is more, the vouchers can be customized with the first and last name, with personal ID, the internal distribution errors being thus avoided.

There are some additional advantages for the employees: apart from the real benefit of the food vouchers, the employees can receive, inside their food voucher packages, special offer coupons for consumer goods, grocery, books, travelling, insurance or financial services, etc.) The same administrative and financial advantages can be found in the case of gift vouchers which can be offered to the employees as well as to the business partners or the customers.

Regarding the gift vouchers as a means of motivating and making the employees loyal, they are used most often as prizes and reward in the internal contests or as bonuses on special occasions, and they are tax-deductible and tax-free within the 150 Lei/person (according to the Law of fiscal code no 571/2003, modified and completed- the gift vouchers for minor children of the employees offered on Easter and June 1st, Christmas and other religious similar holidays are tax-free, the same being those offered to the employees on march 8th up to 150 Lei/person).

Non-wage benefits/fringe benefits. Age, education, professional experience, marital status, the number of family members are very important elements which determine how the employee perceives certain benefits. According to the specialists, adapting the benefits to the employee's needs is the best option to motivate him; as a result the impact can be sometimes as valuable as a payment rise.

For the moment, according to several specialists, many of the Romanian organizations do not have clear systems of offering non-financial benefits, but generally, the managers prefer to offer the following deductible services which make the employee dependant on the organization:

- cars to be used by sales representatives or managers;

- mobile phones unlimited conversations;
- health, life, risk or accident insurance;
- membership cards to sports clubs or beauty centres;
- discounts when purchasing certain goods;
- relaxation benefits such as dance classes, spa or fitness membership, massage at workplace, etc;
- facilities for kindergarten;
- Special credit for buying a house;
- Paid subscriptions to magazines and specialized books from abroad;
- Facilities to join foreign professional associations;
- Payment or contribution to long-term training sessions, such as EMBA;
- A number of share certificates of the organization or the possibility of becoming partners to its leadership;
- A contribution to or free vacations.

According to Laura Chilom, e-Jobs Hr Consultant “the fringe benefits the organizations offer to their employees are in fact mutual benefits since, on one hand, they satisfy the employee’s needs and on the other hand the organization gets the best results with a minimum of effort, which is not quantified in the budget but in the loyalty degree of the employees”.

The positive effect of offering non-wage benefits is confirmed by François Podeur, Sodexho general manager, who believes that “the employees prove a high degree of organization commitment, are more loyal, feel more motivated to exceed their limitations and personal growth.”

However, apart from many enthusiastic people who find flexible benefits an excellent idea, there are many analysts who mention the high costs of such a system, and in today’s context when the Romanian firms, who used to offer benefits, imitating the multinational organization strategy, are affected by crisis, there is the risk of cutting off the benefits, without a clear economic analyses, fact which will lead to demotivating the employees and high productivity fluctuation.

According to Gabriela Șarapatin, Human Resources and Career Management specialist, the main methods of non-financial motivation and the most frequent motivating factors mentioned while interviewing the employees refer to value and appreciation from the organization, subjective well-being and career development.

Communication between the management and the employees. The meetings between the management and the employees are highly motivating, due to the fact that people are having a tensed period of time. Through personal communication between the managers and their employees, the latter feel more secure and appreciated. In such difficult periods of time, full of ambiguities, communication between the management and the employees becomes even more important. Either formal or informal, the employees need official information, which neutralizes the information received by other channels of communication, annihilating thus the spreading of rumours.

It is extremely important that the managers should take responsibility and clearly and directly communicate the situation of the company, the impact of the crises, the undergoing changes, the expectations of the organization, as well as the decisions regarding payment and job safety. This last aspect becomes increasingly important as

the employees are more likely to chance expectations, many of them being willing to give up benefits in favour of the safety of their job, as Dorina Păun, Managing Partner at DC Skope Consulting, says.

Talent management integrated into Career Management policy. Apparently, the economic crisis has stopped talent-hunting, as the organizations have not extended their activity and most of them have their vacant jobs blocked. This made it clearer that talents have become essential for the survival of the organizations and that is why the managers have to rethink their motivational and employee retention policy.

Talent management, integrated into the career management policy, becomes essential both for the organization and for motivating employees who need to grow professionally in order to fit to the labour market.

Human resources professionals play a crucial role in identifying those who are a real talent for the organization and also the potential ones, so that they should become key-employees at a certain moment. Such an approach requires strategic vision, which often lacks to some of the human resources professionals who are stuck in solving administrative problems instead of a long-term strategy.

Ileana Burada, HR Athénée Palace Hilton manager says that the Hilton Hotels has a human resources strategy with a positive impact on the employee's career, through a series of programs of professional development. Thus, the "Elevator" programs are designed to prepare employees for upper positions, by combining practice in different hotels in the world with the use of management skills; and the "Panorama" programmes are meant to offer assistance to the new heads of departments to get accustomed to their new role. Another interesting program is "Shine 4D" which prepares the heads of departments for 4D level(Director of Operations or Director of Business Development), people who are automatically on the list of international vacancies for their position and "Shine GM" which is a continuation of the previous program, for the next level, namely General Manager. The last program "Top Gear" is dedicated to young talents indentified in the HR domain. Even if the organisation has got a general cost reduction policy, including employees, it has the possibility to guide their career and continue to motivate them.

Job redesign. Job redesign in order to make it motivating, by the responsibilities it implies, may be considered the first step in the motivation policy of the organisation. What the employers must take into account, when designing the jobs as motivation factors, are the following: the level of responsibility, the autonomy it provides, the significance the job may have for the employee and the diversification of the abilities it requires when dealing with various tasks. There are many possibilities regarding job redesigning: job rotation, job enlargement and job enrichment. The last variant refers not only to the increasing number of tasks for the job but also an increase in the complexity of those tasks. Such an approach meets the employees' need for development and it is recommendable that it should be integrated in the career management process.

The organization- a stimulating environment for the employee' involvement and identification. If, up to now, performance improvement has been associated to payment rise- through financial bonuses and cash allowances- this proves to be a non-sufficient and short term transaction. This is due to the economic context which

requires dedicated employees to share the organization values and be ready to make greater efforts to surpass the performance gap generated by the crises.

The extra-job behaviour is vital, that is contextual performance, and it is related to the level of the employee's identification with the organization and its values. That is why the question of the motivation policy becomes important-what to be rewarded and how exactly to do it?

The employees do not want a simple trade, according to the contractual conventions, but they wish for an environment where they can improve themselves. The leaders must be aware that the transactional manner of offering money for work is no longer useful. On one hand there are objective economic restrictions and on the other hand the people's need developed.

Human resources specialists mention that the following non-financial motivating factors can persuade staff to work harder and more efficiently:

- Feedback. The manager's regular feedback is a powerful motivating factor for a significant number of employees. Therefore, the manager can and it is advisable to establish regular meetings with the members of his team, where they can receive feedback regarding the activities of the week. There are some simple rules here- not all the employees feel motivated by regular feedback, so feedback will be offered only to those employees interested in the matter; - the positive feedback is more efficient when offered in public, while the negative one in private; - offering feedback must take into account some simple rules: always mentioning more positive aspects than negative, the ideal ratio being 5:1 for the positive ones.

- The level of authority of the job. It is surprising and difficult to implement, but most of the employees would work harder if delegated more authority and trust. Excessive restrictions are nowadays the main reason the employees change their jobs. Why is it difficult to implement? Because delegating a high level of freedom to the employees in performing the activities required by the tasks of their jobs could inevitably lead to a greater number of errors both the employee and the organization must learn from and not to be blamed for.
- The relationship with the manager. The fact that the manager openly shows interest in the employee's work, that he praises the effort or delegates an important task makes the employee perceive himself as being much more important for the organization rather than in the absence of these aspects.
- The employee's sense of belonging. Sometimes the relationship of an employee to the group he belongs to has a more stimulating and retaining effect than an insignificant salary raise. The way he socializes with his colleagues, the common goals, the orientation towards the same values, aims, in conclusion, the pleasant atmosphere in the organization stimulates and makes the staff loyal.

In the same context, George Butnoiu, human resources specialist, thinks that a comfortable, modern, usual working place can be a powerful motivating factor and an important non-financial benefit and he states that: "a thousand Euro invested in comfort has a five time greater effect than a thousand Euro given to the employee to be spend – the comfort increasing the employees' productivity making them enjoy coming to work".

The importance of involving the employees in the activity is vital to the economic performance of the organization, fact which is confirmed also by the studies of the “Society of Incentive & Travel Executives” (SITE) (Non –financial motivation- a business solution for the current economic context) which shows that less than 20% of the employees work at their full potential, and 75% of them consider that they could be more efficient, whereas more than 80% of the customer satisfaction owes to the really involved and informed employees.

The Gallup recent year research show that 70% from the 700000 interviewed employees are not involved in their jobs and the more time people spend in an organization they less emotionally involved they tend to be.

The psychologist Lena Rusti believes that every person wishes the others to have a good opinion on him/her. That explains why, working for the first time is a period of striving and a motivating in order to show that you are capable. Thus, motivation is in interdependence with the signals the employee receives at the workplace.

One of the most frequently used methods is to really involve the employee in the organization, to give him the feeling that he is not only a simple employee, but a partner. As a result, the well-being of the organization becomes personal well-being, which is a much more consistent motivation than a salary raise.

Such is the case of US General Motors Company which encouraged its employees to take part in its leadership and, as a result, their involvement led to positive results. The organization used a series of motivating factors, for example: suggestion box, closed door policy, the quality circles and flexible work programs, promoting teamwork or quality life programs.

Another important type of motivation is the involvement of the organization in the employee’s living plans, doing things which may influence the employee’s personal life (paying a nanny, a housemaid, a nurse for the employee’s parent). The psychologists state that the employee feels much more involved in the organization when he perceives it as an extension of his personal living plan.

The most powerful motivation is represented by the flexibility of the work program since nobody likes working overtime. In this way, the inability to accept that the employee has a life outside the eight, ten or even twelve hours of work is the most de-motivating thing that can undermine a long-term relationship in an organization.

In a more and more complex and ambiguous environment, the managers will have to find new ways of motivating people, to make them get involved and be trustworthy and value promoting.

According to the training consultants, in order to find cheap methods of motivating employees the focus was on promotions coming from inside and development through training sessions. We mean here both the possibility of getting a promotion an organization may offer and the possibility of education offered to the employees.

Efficient application and implementation of the training sessions- new approaches of the organization. The employers have now reduced the bonus or have offered it only in agreement with the results(less satisfactory compared to last year)

and have given up the team-building sessions focused mainly on socializing activities, without having specific aims.

Alexandru Talmazan, managing Partner at Wrightson Romania Consulting Company says that "the present crises situation makes the employees less demanding and naturally, the employers will take advantage of the situation and cut off the holiday bonus and reduce the budget for parties, team-building and presents".

Obviously, in comparison to last year situation, the training market is decreasing, especially in the first part of the year." The highest training consumers have postponed their projects for the second part of the year, waiting for the results of the first half. It is not only the value of the training budget which has decreased, but also the average number of training days per employer" stated Decebal Leonard Marin, Managing Partner Corporate Dynamics International.

According to Vlad Duțescu, Managing Director Sandler Training, the organizations which have training sessions during the economic crises period are the ones used to investing in the employees' development and have resources which can be allotted for such programs.

"The new paradigm is given not by the type of the organization or the number of its employees but by the instruction style and the chosen program: precise and step by step, ensuring support to the employee for an efficient implementation and recovery of the investment", added Vlad Duțescu.

The organizations which are investing in this period of crises are of two types: "the big international ones whose training sessions are a permanent part of the development strategy and the medium-size ones to which developing the employees' skills is a condition to survive" said Leonard Marin.

The average managers have been the subject of such training programs in particular, their performance having the greatest impact on the productivity of the organization.

For example, Kraft Foods Romania did not give up training its employees in 2009, maintaining the training budget at the same level as the previous year", said Dorin Grigorescu, the Human resources Manager of the company." Although everyone is facing the crises, we have decided not to cut off the training and employee development budget", added Dorin Grigorescu.

Also, Real Hypermarket kept a training portfolio similar to the previous years, focusing on developing of the professional abilities of its employees in stores, on modernizing, presenting and standardizing the network procedures.

Unlike the previous years, the organizations have changed the approach of the training sessions, being much more rigorous in selecting the staff and exactly identifying everyone's needs. Leonard Marin explains: "the organizations have become much more selective, firstly with the training providers and then the cost involved. There is a higher interest in reducing the cost in favour of organizing training sessions based on internal resources, a shift to e-learning and to a more accurate identification of the training needs. It has also increased the interest in designing programs for the specific needs and for result measurement. The training coordinators were very attentive to the internal selling of training programs, to involving the managers of the employees and to disseminating.

The training sessions done just for being “fashionable” have completely disappeared and team-building sessions have also been greatly reduced.” A major interest of the organizations was shown to the marketing training sessions, precise workshops and integrated programs for a period of time up to one year. The organizations having employees at national level have started to use online trainings, which reduce the cost of travel and enhance the time of the productive activity. Generally, the market narrowed, starting to become more structured and more pragmatic and immediate results oriented”, said Vald Dutescu.

The staff participating in the training sessions was rigorously selected, assessing the employee’s contribution to the sales figures of the company, the abroad training has been replaced with online one or at the workplace, some of the money saved being used for detailed and precise assessment of the instructional needs and the degree of implementation of the things learned.” Both the organization and the employees have been more interested in the applicability and the implementation rather than the fashionable title or the sympathy towards the trainer. Nobody is asking” how much did I like it? but “was it useful?” noticed the Sandler Training manager, which further observed that, in this period of time, some participants paid for the training programs personally, allotting between 360 and 1200 euro, according to the type of the training session, or some organizations have chosen to support a part of the training cost while the other part was paid by the employee.

This year, Real network preferred to organize internal training sessions providing the employees the opportunity to share experience. „ The focus has been on technical courses and in-house delivery. This year was one of sharing experience and working discipline. There was no other solution, since by setting up 24 stores in just 4 years and due to the sales rate , the organization has got very much experience all our employees must benefit from” said Ioana Olteanu, Training Manager at Real Hypermarket Romania. The courses Real have chosen were tailored to meet the specificity of the activity. Thus, the employees took part in “customer care” training sessions, in management courses designed to the department heads, courses for working procedures or foreign languages and IT courses for the employees from the headquarters and the international courses of the Metro group designed for the level of organizational management have continued. As strategies of motivating the employees, the organization focused on promoting from within.

”We have organized assessment centres to offer all the talented employees the chance of demonstrating their entrepreneurship, management and leadership abilities” said Ioana Olteanu.

This motivation policy by promoting the worthy employees is confirmed by the research done (in September 2009 and took into account a test specimen of 600 organizations from Central and Eastern Europe, from which 180 have been multinational and Romanian organizations on the local market) by the consulting and auditing company PricewaterhouseCoopers (PwC), where we can notice that 39% of the multinational companies present on the local market were or are going to be promoted this year, the same percentage as in 2008.

The employees with the greatest opportunities of being promoted work in financial services where 48% are being promoted or in FMCG(a percentage of 41%).

Opportunities of career development can be for the employees working in industry, in pharmaceutical domain or IA&C, as more than 30% of the employees of the participating organizations at the study will be on a higher rank position at the end of the year.

The promotions as well as the possibilities of instruction offered to the employees by the organizations, are part of the motivational policy which contribute to the development of new job specific skills, and not only do they stimulate employees but also a higher performance and an increase in the profit of the organization. Another form of stimulating the employees, used globally by the big organizations, searched for by the employees and used more and more by different employees in Romania is given by:

Incentive tourist packages. These incentive packages are designed especially for the corporate organization which are ready to invest more and more to keep a high level of the employees motivation, being able thus to touch higher levels of performance, finally represented by the profit of the organization.

The success of this type of motivation is based on the created emotion and memorable events of those who take part in this type of program, as the incentive packages offered by the event organizers or the travel agencies include car races with formula 1 cars, the possibility of trying new sensations swimming by the sharks in exotic destinations, tours which include cooking lessons and collection wine tasting, experiences meant to charm the ladies by including shopping and spa sessions, unforgettable experiences for those who longed for becoming astronauts when they were children or want to feel on their own space launches, in space simulator, taking part in military training in MIG planes, survival lessons, scuba diving; rafting; hot air balloon; safari, etc.”

As we can see from the study of the theory and practice of motivating human resources, the array of motivations which can be used by the management of an organization in order to increase performance and job satisfaction of the employees is a very complex and difficult to implement one. The difficulty of such an approach is that the efficiency and efficacy of motivational techniques must be adapted to the individual needs, thing which is almost impossible and ideal.

2. CHARACTERISTICS OF NON-FINANCIAL MOTIVATION

In the current context, the economic regression requires as guidelines for the managers, the identification and amplification of motivating non-financial factors. We can no longer ignore the need of /praising the employees’ work, of grouping and socializing with other people during the activity, of finding a meaning to the actions they undergo.

According to numerous studies in the domain, mentioned by specialists in articles which discuss motivation, we can notice the long term lack of efficiency of the financial systems, because they are economically limited(the possibility of allotting rewards by the organisations), they can lead to dissatisfaction when bonus is offered on subjective criteria regarding the employees’ performance, and is from the point of view of the employee a right that he had earned, which makes him work better, only if he

continues to receive financial bonuses no matter the economic situation of the organisation.

On the other hand, human resources specialists argue that a series of studies have shown that non-financial motivators are more efficient in building the employees' long term high commitment, but we must take into account the fact that, each employee is motivated by different reasons, having unique values and interests, and that is why it is quite difficult to establish an efficient motivational policy for the organization.

The materials presenting the idea of non-financial motivation include the ideas of such a motivation compared with financial motivation: it costs less; it has more powerful effects, appealing to emotions; it is remembered by the employee a longer period of time; it does not create hard feelings when the employer is forced to give up on it; it has positive effects on the team's cohesion; it creates loyalty towards the organization.

A major advantage, according to the specialists, is connected to the special efficiency of the methods of non-financial employee motivation because it ensures the employees' long term loyalty and performance.

From the specialists' ideas regarding motivation, the following are worth mentioning:

- there are many employees in famous organizations, with very consistent pay packages, far above the average, which choose entrepreneurship or changing the employer, simply because the lack of non-financial motivation;
- the studies show that the motivation offered by a salary raise lasts between three and six months;
- motivating employees without money is part of the skills characteristic for the highly performing managers and is specific to the culture of those organizations which have high working productivity;
- the methods that do not imply money, require production managers: team leaders, masters, shift leaders, regional managers or department managers with real leader skills, capable of making the people follow even in the difficult market conditions in the present day crises;
- all these aspects must be correlated to the specific conditions in the labour market and especially, time, as none of the methods, implying money or not, cannot work for a long time without the other;
- the non-financial motivation policy is not a standard one for all the organizations, but it must be adapted and adjusted to the needs of the organization and the objectives the organization sets.

The experience and the opinions of the training specialists and consultants, the non-financial motivation is the best solution for a series of problems which may appear in an organization, such as:

- increasing the employees' productivity;
- reducing long-term employee absence, which, when it is legally covered, prevents the employer from taking the right measures;
- the increase in the employees' involvement and responsibility including in the situations when the activities are perceived as being extra-work;

- the increase of the creativity and productivity of the employees in critical moments for the organization;
- the increase of the loyalty to the organization and avoiding staff burnout especially in the sectors with a high level of stress where the employees' retention is difficult;
- raising the employees' competitive skills, ambition and the desire to succeed;
- raising the cohesion of the team and the enhancement of the working atmosphere;
- increasing the internal image of the organization and improving the internal atmosphere;
- the increase in the quality of the services and products offered to the employees, without supplementary costs.

The instruments of non-financial motivation are many and a short presentation of them from the point of view of both the employer and the employee would be the following:

- a set of very strict rules;
- efficient meetings;
- rewarding special merits;
- respect shown to the employees, the manager to care about the employees as human beings, not just simple employees;
- celebrating employees' birthday;
- interest for creating and supporting a team atmosphere and respect among the employees;
- the existence of a transparent salary and promotion system;
- the manager has to correctly treat the employees, to clearly divide the tasks, to set realistic objectives, to show trust to the employees and not lie to them, to introduce stimulating measures;
- to provide the employee the opportunity to learn new things, to feel appreciated for what you do, to be criticized only when there is a reason, to know your tasks clearly, to have a satisfactory level of authority and autonomy, your opinions to be taken into account and to have colleagues who do their job well.

3. NON-FINANCIAL MOTIVATIONAL FACTORS

Among the non-financial motivational factors which may stimulate the employees' involvement and performance raise, we are going to list some of them from the array of those mentioned and used in management practice.

Good working conditions allow exploiting the natural potential of the employees. Unsatisfactory working conditions such as unpleasant location, heat, narrow and non-ergonomic spaces divert attention, affect performance and enhance the employees' frustration. We must take into account, on one hand, that there may be employees who are financially rewarded at a level they can easily give up when better working conditions are offered, thus being more satisfied and more performing, and on the other hand, the investment in enhancing the working conditions will not be balanced according to the performances of the activity.

Job satisfaction refers to the way in which the policy, the rules and the procedures of the organization are formulated and implemented and refers to the

privileges offered to the more experienced employees, the status in the organization, the title of the job, the degree of supervising it implies, the existence of an office provided, etc in the public sector, such motivating factor was a powerful one until now for a large category of employees, both the executives and the top management ones. However, when large job cuts and salary reductions are to come in the public sector, the retention of a part of this category of employees whose motto is “quality of work and high responsibility” is questionable in the future.

Job promotion supposes climbing the hierarchical ladder, being a sort of recognition of the employee’s professional development and performances and is a powerful motivating factor. Non-promoting an employee who is expecting it and is considered entitled to it by its colleagues will profoundly de-motivate the employee, and in case this situation continues, he will not hesitate to leave the organization the moment his expectations could be satisfied by a better offer from another organization.

Appreciation and professional fulfilment means getting good results which may motivate employees, a higher motivation for performance being conditioned by its recognition and rewarding. Sometimes a simple “thank you” is enough, but unrewarded success at work is de-motivating, since, in this case, the employee will not consider that there is no use striving to do things better as long as there is no difference in doing things well or not. Completing a task is motivating the employee in trying to get further success, that is why it is necessary that the manager set realistic objectives and help the employees to reach them by good communication and feedback so that to avoid de-motivation as a result of their failure in reaching the objectives.

Personal development may be promoted by offering possibilities of continuous professional training, specialized training sessions offered by the organization both by external specialists and by active socializing projects such as team –building.

Attractive work which supposes that the job itself may offer the most important and motivating rewards must be taken into account as an important motivational factor. For this, it is necessary that the employees are properly trained when starting their activities, which leads to the science of leading how to do things better, efficiently, which leads to increased motivation and performance. Moreover, the employees must be allowed to have autonomy, responsibility and control (self-control as well as external control carried out by cognitive feedback, since autonomy supposes stirring the intrinsic motivation which can generate active involvement, innovation and increased responsibility in activity. Each employee prefers to be responsible and to control the way he/she works, the decision he/she takes and their results. If the members of a team have individual responsibilities, their work will be more efficient and will avoid failure in attaining the objectives by blaming the other team members as lack of individual responsibility.

For quality work we must take into account the need for the individual-job agreement. Some employees have higher potential than the others and prefer not to be too controlled, but others need help. If the right employee has the right job he will be motivated to accomplish the appointed tasks.

We must notice the great variety of factors which may increase motivation, fact which leads to the conclusion that non-financial motivation is very difficult to design and implement in order to enhance the employees’ responsibility, performance

and job satisfaction, in order to increase the productivity and efficiency of the organization.

Paying attention to such factors may lead to performance, which means not only high quality, but also working more, keeping existing customers and gaining new ones, or, simply, customer satisfaction.

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STUDY REGARDING THE IMPLEMENTED PROJECTS BY THE MEMBERS OF THE TERRITORIAL PACT CENTRE AND THE IDENTIFICATION OF PROJECT IDEAS

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ABSTRACT: *The study was conducted within the project „The establishment of the Permanent Technical Secretariat of the Territorial Pact Centre for Employment and Social Inclusion in the Centre Region”, a project co-financed by the European Social Fund through the Sectoral Operational Programme for Human Resources Development 2007-2013. The general purpose of this research consists of identifying the implemented projects and the project ideas in order for the PTS to provide efficient consultancy in drawing up the financing application forms. Therefore, we have tried to determine the level in which organisations have implemented pre-adhesion financing projects; to determine the level in which the financing application forms were handed in within the structural programmes and the implemented/under implementation projects, to determine the organisations’ option regarding the elaboration of financing application forms from European funds; the handing-in period and the programmes, the reasons for their non-elaboration. The paper shows the results of this research based on processing the questionnaires collected until the 25th of May 2010, as well as a brief historical of how the Territorial Pact Centre was established and how the project was elaborated.*

KEY WORDS: *PTS Centre; Territorial Pact Centre; financing projects; implemented; programme; structural funds*

JEL CLASSIFICATION: *M53, M10*

1. INTRODUCTORY ASPECTS

The project’s general objective within which the presented research was conducted in this paper is the establishment of the Permanent Technical Secretariat of

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the Centre Region Pact (PTS), and ensuring its functional character, in order to give support to the members of the Centre Region Pact, in taking the necessary steps to improve human capital investments of the Centre Region and to provide highly-qualified, competitive, dynamic and flexible labour force, by capitalizing the Regional Pact, implementing the Regional Action Plan for Employment and Social Inclusion in the Centre Region and facilitating access to the Social European Fund through the Sectoral Operational Programme for Human Resources Development (SOP HRD)

Specific objectives:

- a) Offering support to the members of the Regional Pact Centre for the elaboration of studies and organisation of meetings, with the purpose of adapting, implementing and developing the Regional Action Plan for Employment and Social Inclusion (REAP).
- b) Providing consultancy to the members of the Centre Region Pact for the organisational development and for the elaboration of financing application forms within the partnership, eligible within SOP HRD.
- c) Facilitating communication and information for the actors of the Centre Region, as well as with the similar structures from other regions and countries, and also with MA SOP HRD.
- d) Training and informing the actors of the Centre Region by organising classes, seminars, advertising activities and disseminating the project's results).
- e) Awareness and support campaigns for the Regional Pact and social Partnerships, with the purpose of increasing information level on REAP among local and regional actors.

This project meets the specific objective of the Priority Axis 3 “Improving adaptability of workers and enterprises”. The proposed activities to be carried out under the Permanent Technical Secretariat aim to strengthen the administrative capacity of social partners' development of new partnerships for employment and social inclusion and promote the existing ones.

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

At the bases of this project there stood “*The SOP HRD Implementation Frame Document*” whose general objective refers to “the development of human capital and competitiveness, by correlating education and training throughout the entire life with the labour market and providing increased opportunities for future participation on a modern, flexible and inclusive labour market of 1.650.000 people”. Under these circumstances, the project will generate the best conditions for human capital development adapted to the new conditions of the labour market, by creating local, county, regional, national partnerships, by up-dating the REAP and by implementing it, through the support offered for the elaboration of European funded projects.

The establishment of the Regional Technical Secretariat of the Stability Pact aims at creating a structure to support social partners and NGOs within the Pact (the creation of Territorial Pacts was an initiative of the Ministry of Labour, Family and

Equal Opportunities, which was launched when developing The Regional Action Plans for Employment and Social Inclusion (PRAO) through the Phare Technical Assistance Project RO 2003/005-551.05.01.04.04.01 “Support of the Ministry of Labour in developing and implementing the employment and training policy for EDIS” - Extended Decentralised Implementation System), for the permanent review of REAP and its implementation, by providing advice on fundraising and providing specific studies, supporting relations and improving communication within the Pact, on one hand and with its external environment on the other hand.

The project is necessary in the context of various needs identified at the level of employment and social inclusion fields. The PTS activities comply with the *European Union Social Policy* and they aim to consolidate social dialogue. The different documents adopted such as: “Community Charter of Fundamental Social Rights of Workers”, “European Employment Strategy”, SOP HRD - Priority 3: Increasing adaptability of workers and enterprises, etc., establish the general framework of action in the two areas concerned - employment and social inclusion. In Romania, the *National Reform Programme 2007-2010* states how to implement the Integrated Guidelines for Employment, directions recommended in *the Lisbon Strategy*. PTS objectives are consistent with the regulations of this policy document promoting initiatives for social partners.”

The establishment of PTS ensures relevance to the “*Integrated Guidelines for Growth and Employment*”, which set out specific guidelines regarding the increase of participation and maintenance on the labour market, promoting workers’ and enterprises’ adaptability, increasing investments in human capital through education and professional training.

The support offered by the PTS to the Regional pact members for improving the development capacity and promoting initiatives in the areas of employment and social inclusion through access to European funds, meets the priorities of “The National Reform Plan” and “improving administrative capacity, improving the quality and management of governmental expenses, stimulating employment and improving human resources quality”.

The target group consist of:

- a) **Direct beneficiaries** (members of the Regional pact Centre and of the County Partnerships: Alba, Braşov, Covasna, Harghita, Mureş and Sibiu). The advice offered by PTS to the Regional Pact Centre members for the elaboration of eligible financing application forms within European funded programmes, as well as the assistance offered during projects’ implementation, especially within SOP HRD 2007-2013, proves that the project is in accordance to the “*National Strategic Reference Framework (NSRF) 2007-2013*”, which has as priority “to use Structural Instruments to reduce economic and social development disparities between Romania and the European Union member states”.
- b) **Indirect beneficiaries** (all institutions and organisations involved in the field of employment and social inclusion and all the population of the Centre Region). PTS undergoes activities which support the establishment and development of partnerships, as well as the development of social

partners' administrative capacity, assists in promoting regional employment policies, takes part to the consulting process of all factors involved in combating unemployment and social inclusion.

2. OBJECTIVES AND CONCLUSIONS

Objective no. 1: Knowing the extent to which organisations have implemented pre-accession financing projects. In order to achieve this objective, question no.1 was introduced in the questionnaire. The information collected is presented in table 1.

Table 1. Knowing the extent to which organisations have implemented pre-accession financing projects

		Frequency	Percentage	Valid percentage
Valid	26			
	Yes	21	80,8	80,8
	No	5	19,2	19,2
Total		26	100,0	100,0

After processing the obtained information, we conclude that the majority of the respondent organisations (80,8%) state that they have implemented pre-accession financing projects and only 19,2% of them have not implemented such projects. Consequently, we appreciate the organisations' interest in accessing pre-accession funds. Moreover, the purpose of this question was to make an opinion on the organisations' ability to write financing application forms and to implement projects, to see which of the member organisations of the Pact and of the County Partnerships have or have not implemented such projects. We believe that being aware of these aspects also reflects, to a certain extent, the organisations' experience in developing the application forms and implementing projects.

Objective no. 2: Knowing 3 of the most recent projects implemented through pre-accession funds. In order to achieve this objective, point no. 2 was introduced in the questionnaire, where respondents had the possibility to write down their own particular additions.

After analysing the obtained information (table 2), we may conclude the following:

- The 21 organisations that stated that they had implemented projects have mentioned a total number of 56 projects.
- Regarding the Financing programme, we may conclude that the majority of the implemented projects (91,1%) have had as financing the PHARE funds. Besides this source, there is also Leonardo, a programme used in the implementation of 3 of the mentioned projects, which is 5,3%, Socrates (Grundtvig) for the implementation of one project (1,8%).

Table 2. The financing programme

Financing programme	Mentioned	
	Frequency	Percentage
PHARE	51	91,1
ISPA	0	0
SAPARD	0	0
Socrates (Grundtvig)	1	1,8
Leonardo	3	5,3
Other - funds granted by the Ministry of Labour through IBRD loan	1	1,8
Total	56	100,0

Table 3. The budget of the projects implemented through pre-accession funds

Financing programme	Budget in EURO	
	Minimum	Maximum
PHARE	18.000	810.891
Other (Grundtvig, Leonardo)	6.135	512.395
Financing programme	Budget in LEI	
	Minimum	Maximum
PHARE	4.974.252	9.603.157
Other (Grundtvig, Leonardo)	-	-
Total budget value for the projects declared by respondents as implemented		
EURO	Programme	Total budget
	PHARE	7.634.172,97
	Leonardo	1.212.459
	Grundtvig	6.135
LEI	Programme	Total budget
	PHARE	14.577.409
USD	Programme	Total budget
	-	38.938

As far as the budget of the projects mentioned by the organisations is concerned, it can be noticed that its range is extremely wide, the amounts being diverse. For this reason, we believe that it is interesting that we mention only the values encountered at the extremes, selected according to currency and the financing programme (see table 3).

Objective no. 3: Knowing the extent to which financing application forms have been submitted within structural programmes and implemented / under implementation projects. To have an opinion on the situation of the financing application forms from structural funds submitted by the member organisations of the Territorial Pact Centre and of the County Partnerships, question no. 3 was included in the questionnaire, the obtained data being presented in table 4.

Table 4. The situation of financing application forms from structural funds

		Frequency	Percentage	Valid percentage
Valid	26			
	YES, but approval has not been obtained	4	15,4	13,8
	YES, but they are under evaluation*	7	26,9	24,1
	YES and they have also been approved	12	46,2	41,4
	NO	6	23,1	20,7
	Total**	29	111,6	100,0

Note: * Given the obtained responses and the organisations' requests on how to fill in the questionnaire, the variant "YES, they are under evaluation" was subsequently introduced; ** The total of responses is greater than 26, namely than 100%, because the question has had multiple answers.

After analysing the collected data we may conclude that most of the respondents (46.2%) have submitted financing applications from structural funds which have been approved after evaluation, for 26.9% of the respondents the submitted applications are under evaluation, 15.4% state they have submitted financing applications from structural funds but they have not been approved and 23.1% have not submitted such applications. Consequently, we note the organisations' high enough interest for accessing structural funds.

Regarding the implemented / under implementation projects by the respondents, we may state the following:

- SOP HRD: 7 projects under implementation have been identified, applicants Romania Scouts – Braşov Branch, the Technical College "Mircea Cristea" Braşov, A.J.O.F.M. Harghita, Covasna County School Inspectorate, ADR Centre;
- ROP: 13 projects under implementation have been identified, applicants Harghita County Council, Alba County Council, The County Council Mureş, Sibiu County Council, Întorsura Buzaului City Hall, Târgu Mureş City Hall, Child Protection Agency in Mureş;
- POD CA (Operational Programme Administrative Capacity Development): 1 project has been identified, implemented by Harghita County Council;
- SOP ECI (Sectoral Operational Programme Economic Competitiveness Increase): 1 project implemented by Romania Scouts – Braşov Branch.

Objective no. 4: Knowing the organisation's option on how to develop financing applications from structural funds, the submission period and programmes, the reasons why they are not being elaborated. The consultancy activity of the Permanent Technical Secretariat Centre depends on the option of the members of the Territorial Pact Centre and the County Partnerships for the elaboration of financing applications. Moreover, the consultancy activity focuses on the SOP HRD 2007-2013 requests. From this perspective, a major objective of the research consists of knowing the organisations' options regarding the European financing.

In order to know the organisations' option when establishing the financing applications, the submission period and programmes, the reasons why they are not

being elaborated, questions 5, 6 and 7 were introduced into the questionnaire. The collected information regarding the submission option is presented in table 5.

Table 5. Option regarding the establishment of financing applications

		Frequency	Percentage	Valid percentage
Valid	26			
	YES, on the first call for proposals this year	13	50,0	41,9
	YES, on the following calls for proposals throughout the year	14	53,8	45,2
	NO	4	15,4	12,9
	Total*	31	119,2	100,0

Note: * The total of responses is greater than 26, namely than 100%, because the question has had multiple answers.

After analysing the collected information, it can be noticed that 53,8% of the respondents are interested in elaborating and submitting financing application forms on the following calls of the year 2010, 50% want to access European funds on the first call of this year and 15,4% are not interested in accessing funds.

The reasons why no interest in being shown in accessing European funds have been stated as it follows:

- the inexistence of human resources;
- the inexistence of financial resources;
- the lack of interested partners;
- the lack of sufficient information on the financing programmes;
- the lack of experience in elaborating financing applications.

By analysing these reasons, the lack of financial resources has been most often mentioned (3 of the organisations that choose “NO”)

With regard to the above mentioned programmes, we conclude:

- there were identified **20 organisations willing to** file financing applications;
- there are **35 ideas** (more or less materialised) divided in the following financing programmes: **SOP HRD** – 18 ideas out of which 7 for the first call (from these, **only 4 have specifically mentioned “the first call”**) and 11 on the following calls of proposals of the year; **ROP** – 9 ideas, from which 7 on the first call, with the specification that 3 of them are also declared for the future calls; **POS CCE** – 4 ideas, all of them for future calls this year; **ACD SOP** – 3 ideas out of which 1 on the first call and 2 for the future calls; **SOP Environment** – 1 idea for the first call;
- regarding the type of projects, it can be noticed that the majority of organisations focus on Grant projects, only 4 of the 35 ideas focusing on strategic programmes (2 for ROP, 1 for SOP HRD, 1 for SOP Environment);

- the major fields of intervention and the priority axes are diverse, having been presented with their full names in table 8.

As a conclusion, we consider that there is availability in elaborating the financing applications and we notice the great number for SOP HRD ideas but, in contradiction, the extremely low percentage of project ideas embodied in applications that are to be submitted on the first call of 2010.

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ECONOMIC ANALYSIS OF SMALLHOLDERS: A STUDY OF THE PUBLIC MARKET

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ABSTRACT: *This work seeks to analyze economically the public market of Santa Rosa/RS, focusing the marketing channels used and the quality of products. Based on this work, one shows that the pluriactivity is a factor that contributes to greater income. However, the greater the complexity of economic activities, the more effective must be management mechanisms, because the productive factors and market relations become more complex. As a result, the ability to administer efficiently family properties is crucial for the sustainable development of Brazilian agribusiness, contributing to the improvement of the quality of life, for fixing the man in the field and to a cost-effective and environmentally sustainable development.*

KEY WORDS: *Agribusiness; sales channels; New Institutional Economics; transaction costs; family farming*

JEL CLASSIFICATION: *Q01, Q10*

1. INTRODUCTION

Family farming contributes significantly to food production, income generation and the development of all regions of Brazil, having a fundamental role in Brazilian agribusiness¹. These rural properties are characterized by the fact of works run mostly

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¹ *So misleading, the term agribusiness has been used to designate the agriculture business performed on a large scale. This inaccuracy is committed both by laymen and academics. However the expression does*

using familiar labour force. According to the Census Data (IBGE, 1998) for the years 1995-1996, there are more than four million properties considered family farming in Brazil, which contribute to generate nearly half of gross production of the Brazilian agribusiness, and employ approximately 80% of rural workers.

If on the one hand, family farming excels by generating income, regional development, preservation of culture and permanence of the man in the field, on the other hand, poverty and inequality in rural areas contribute to the rural exodus and environmental degradation. Both are consequences of biotic factors, climate and plagues, and economic factors, created by competitive market characteristics, by the lack of an effective rural management, by deficiencies in specialized technical assistance and by new consumer requirements in relation to the characteristics of consumed products (Costa, et al., 2009).

In spite the opening of new markets to be a beneficial factor for family farming, globalised markets generate huge challenges for rural producers, in terms of production and technological aspects, as well as the management efficiency. In the case of family farming, you need to consider their specific features; in addition, you need to consider their physical characteristics and location. Thus, the professionals, who work with assistance focused the family farming needs, have to know the particular characteristics of the communities they attend, using appropriate methodologies and instruments, leading to a sustainable development for the producers and to the regions where they are inserted.

In this context it is vital that farmers families be assisted in a systematic manner and by trained professionals in order to meet the demand of these producers, taking apart from traditional technical assistance, information about good manufacturing practices, food security, traceability and further information about the market so that producers are able to produce food of quality that meet consumers demand and which are environmentally and economically viable. For the technical assistance professionals be trained to carry out effective monitoring of producers family, it is important that studies are carry out in order to know deeply the social, productive and cost-effective reality of these farmers.

The growth of competition into the markets contributes to the fact that consumers will require differentiated products, which employ good production practices and which have certification. The search for products with differentiated characteristics eventually represents an open up of new market niches for family farming. The production of organic products, socially responsible and certified products, presents a growing demand, especially on the part of consumers with greater purchasing power, which contributes to increasing of the added value.

In this sense, the certification acts as a guarantee of the characteristics of a particular product or process and becomes a market practice where some public or private organization offers a guarantee that the product has those informed characteristics, i.e. follow the established set of rules. The process of traceability

not have this meaning, according to DAVIS & GOLDBERG, 1957 apud BATALHA, 1997: 25 ' agribusiness is the total sum of production operations, distribution of agricultural supplies, production operations in agricultural units, storage, processing and distribution of agricultural products and items produced on its basis.

enables the consumer to get information, because one goes to know more about the not visible characteristics from the final product. A certified production does not guarantee the traceability of the product, but a tacked product must have a certification process.

This research seeks to analyze the process of marketing through the public market of the municipality of Santa Rosa/RS concerning the institutions and organizations involved and the relationship between producer and consumer in relation to the importance of quality and certification of food.

2. THEORETICAL FRAMEWORK

2.1. New Institutional Economics

The new Institutional Economics (NIE) is formed by two complementary streams: the study of the institutional environment and the study of governance institutions (economy of transaction costs). The first, containing the studies led by Douglas North, analyses the macro-institutional parameters and the second, which has Oliver Williamson as precursor of researches, analyzes the micro-institutions.

2.2. Economy of transaction costs

The Economy of Transaction cost theory (ETC) maintains that the characteristics of the transactions will compose the most efficient form of governance, or the one which is expected as the most effective in terms of reducing transaction costs. The difficulty of measuring transaction costs and even identify them properly are stressed, since unlike physical production costs, those are not readily separable from the administrative costs of the activity.

The governance structures can be classified into:

- (i) the option for the purchase on the market;
- (ii) the production of their own, in the hierarchical form;
- (iii) hybrid form (contracts and vertical integration).

In the first case, the price signalling is sufficient to organize the market with a smaller level of control. In the second case, the transactions are conducted within a unified property regime, because both buyer and seller are the same company, and are subject to administrative controls. Vertical integration is preferable in situations of high specificity of assets, with a greater uncertainty and contractual complexity. In hybrid forms, however, occur contractual relations that preserve the autonomy of the parties and establish specific safeguards for transactions. The contracts present associated costs with their design, implementation, monitoring, and associated costs with the solution of arising disputes out of violation of established contractual relations (Zylbersztajn, 1995).

2.3. Behavioural Assumptions

Transaction costs are costs not directly related to production, but that may arise as agents interact each other and coordination problems of their actions emerge

(Farina, et al., 1997). The concept of transaction costs is illustrated by Williamson (1985) as the "equivalent economic to attrition in physical system".

Williamson (1996) highlights two fundamental assumptions to the understanding of ETC: agents have limited rationality and they are opportunists, which leads to incomplete contracts. Opportunism implies that the parties may exploit a renegotiation, acting in a not ethically way and, consequently, imposing losses on its counterparty in transaction (Farina, et al., 1997). The fact that some agents act in an opportunistic mode is sometimes enough to introduce monitoring costs in the contracts, including safeguards for situations of unilateral dependency (Zylbersztajn, 1995).

When the opportunist action occurs before the close of the contract is called adverse selection, and when it occurs after the closing of the contract is called moral hazard. These behaviours are facilitated when some information is incomplete, flawed or asymmetric, opposing, thus, the Neoclassical Economics which assumption is that the relevant information to contracts are always perfect.

So, given a particular institutional environment, governance structures will be determined by the characteristics of the transactions, i.e., it is assumed that the existence of different structures is explained by basic differences in transaction attributes whose main characteristics are:

- specificity of assets;
- frequency;
- uncertainty.

2.4. Institutional environment

North (1990) enlightens the role of institutional environment as important variable reducing transaction costs, like the security of property rights. With the goal of analyzing the role of institutions, this stream comes along two paths: (a) investigate the effects of a change in the institutional environment on the economic outcome b) by theorizing about the creation of institutions (Farina, et al., 1997).

Institutions establish the "rules of the game" in a society (North, 1990). More precisely, "institutions are the informal restrictions (sanctions, taboos, customs, traditions and codes of conduct) and formal rules (Constitution, laws, rights of property)" (North, 1991, pp.97). Coase (1937) explains that neoclassic results are obtained from efficient markets only when no transaction costs exist. When transaction costs are considerable, the institutions become important in the process.

Organizations are players and consist of groups of individuals dedicated to any activity that is performed with particular purpose. The limitations imposed by the institutional context define the set of opportunities and, therefore, the types of organizations that will be created (North, 1990). The agents of change are entrepreneurs, political or economic agents, decision-makers at organizations.

The changes of formal rules include legislative reforms, such as:

- the adoption of new laws;
- legal changes resulting from jurisprudence amending the law institutes;
- changes in standards and policies on the part of regulators;

- constitutional changes that alter the rules governing the drafting of other standards (North, 1990).

The institutional environment is seen as the locus of displacement parameters, which interfere with the decision on the form of the organizational production used (Zylbersztajn, 1995). Transaction costs arise when measuring the multiple valued dimensions included in the transaction, and when performing the contract, the information has high costs, and perhaps imperfect. Effective institutions and organizations can reduce costs of each transaction, in order to obtain a larger share of the potential earnings from each human interaction (North, 1990). Therefore, the institutions can be inefficient when transaction costs of political and economic markets, along with the subjective model of actors, do not induce the economic system to moving toward more efficient results (North, 1990).

3. METODOLOGY

This research is part of a rural development project developed by the Department of Agricultural Education and rural extension of the Federal University of Santa Maria in partnership with the municipality of Santa Rosa/RS. The municipality of Santa Rosa-RS is located approximately 500 km from the capital of the State. The population in 2006 according to the Brazilian Institute of Geography and Statistics (IBGE, 2007) was about 66,059 inhabitants and the area of the municipality of 488.42 km². Santa Rosa/RS was the first municipality in Rio Grande do Sul to grow soybeans in 1923, becoming the city known as the cradle of soy, which highlights the event Fenasoja (National Fair of Soybeans). Currently, its economy has its base in the industry (Figure 1).



Figure 1. Location of Santa Rosa-RS, Brazil

The first step consisted in conducting qualitative descriptive research and explanatory notes by applying semi-structured questionnaires along rural producers present at the public market of Santa Rosa/RS. The questionnaires were randomly applied to 20 rural producers who sell their products in the public market of Santa Rosa. The data obtained by application of questionnaires along rural producers were organized, automatically tabulated and analyzed through the software SPSS.

4. RESULTS AND DISCUSSION

4.1. Social indicators

The respondents' social data indicate that the mean age of producers is 46,7 years and 75% have only four years of schooling. It is known that the low level of schooling leads to greater difficulty in implementing managerial techniques in the property, which in turn makes difficult the traceability of the chain. In addition, data show that only 10% of the producers interviewed have some kind of management of their production costs. The same happens with transportation and sales costs.

The arguments for this lack of management are directly linked to lack of interest, followed by lack of time. In this way, it is noted that the lack of interest is due mainly to the fact that there are few management tools that are adapted to the realities of rural producers.

Another fact highlighted refers to the area with grain, which occupies more than 60% of the total area of the properties. However, products sold in the public market represent more than 70% of household income. Such values strengthen the idea that in the reality of the small properties one needs to focus efforts on more value-added products. This requires a job promotion of the institutions mainly public looking for awareness and training of farmers.

4.2. Characterization of property

The rural properties have on average 16.9 ha, of which the largest part is used for growing soybeans, followed by maize, livestock, wheat, vegetables and fruit. It was found that there is a great diversification of items produced and marketed in the public market by rural producers interviewed. It is remarkable the variety of fruit, vegetables, followed by farinaceous, inline, pastries and jams (Figure 2). However, when questioned about the model of production, only 21.1% is produced in the organic model, which demonstrates that it is a field with huge growth potential. These figures show that if there are training and incentives to organic model, it is possible to achieve a growing and profitable market.

Only 20% of the producers receive technical assistance from the municipal services and 60% from EMATER. However, in relation to participation in training courses, guidance on product quality and managerial techniques, only 20% of respondents say that these institutions organize such activities. These data support the thesis that public agencies need to give greater attention to issues such as product quality, management and organization of producers.

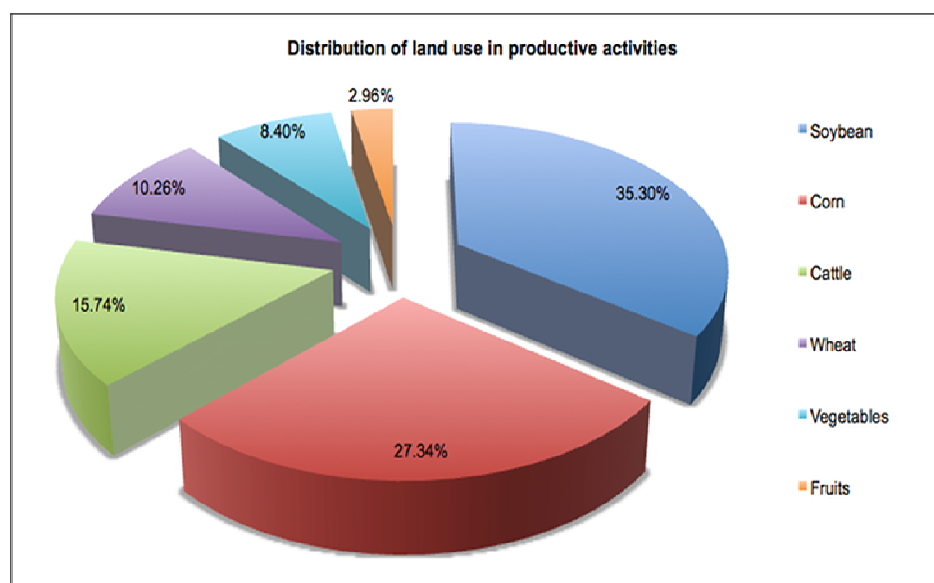


Figure 2. Distribution of land use in productive activities

4.3. Logistics

All respondents carry their products until the local marketing using their own vehicle. 40% consider that the conditions of access through the main road are good and 35% feel bad. The conditions of roads that access the properties are considered good for 50% of respondents and bad for 30%. The average distance from the property until the public market is 9.3 km. Data on distance and road conditions are important, especially in the establishment of strategies for improving the income of farmers, since transport impacts directly on transaction costs. Roads in bad conservation status increase uncertainties about the frequency of the product distribution, and also involve additional costs with processing, storage and conservation with a direct impact on prices to the final consumer.

It was found that 60% of producers use plastic packaging for fruit and vegetables, while 20% use plastic packaging for farinaceous products. These data show that there is the concern of the sellers with the quality and conservation of products. However, it is a practice that still needs to be implemented in most properties

4.4. Marketing

Results suggest that 90% of producers sells in public market their own products, and only 10% are selling their own and also from third parties. It was found that for 45% of households, the public market is the main source of income. Furthermore, 60% of respondents consider sales activity in this location as very important, while the remainder rated as important (Figure 3).

Noteworthy is also the average time in public market is 14.2 years, demonstrating that sellers have a confidence link with this mechanism. This characteristic is important, because the higher confidence between agents, the less the uncertainty, which contributes to a reduction in transaction costs. Results show that 42% of producers make up the price of their products on the public market based on price stipulated by other sellers. However, 32% determine the price based on the values in the city market. Only 16% say the price is formed based on production costs. This result refers again to the question of management. As producers do not perform managerial control, it is unlikely they be able to form the prices based on production costs, which generates uncertainty about the viability of the activity.

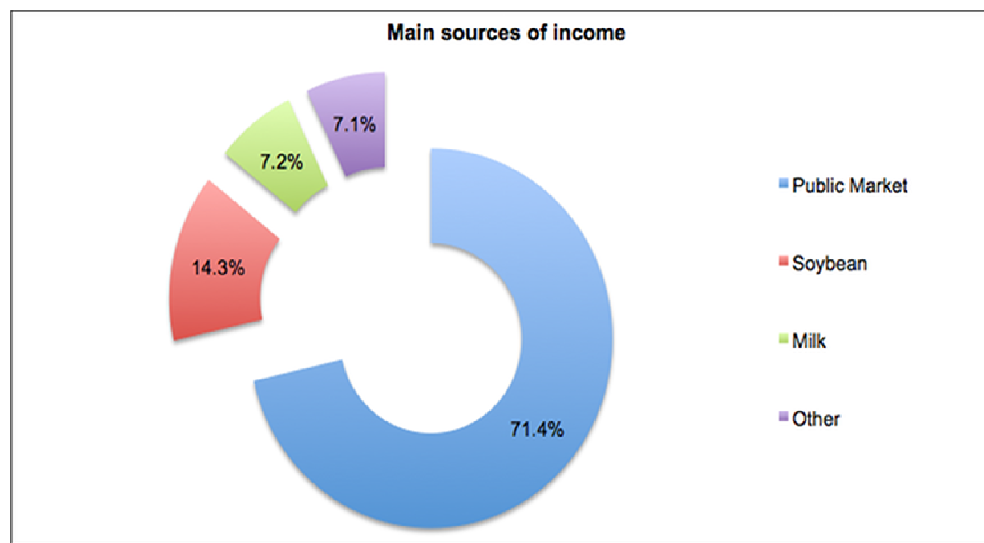


Figure 3. Main sources of income of smallholders

4.5. Food quality

It was found that 65% of respondents say they adopt some quality standard. However, this pattern is institutionalized in only 41.2% of the properties. When checking the practices adopted by producers, 44% say adopt any procedure concerning the hygiene of the products. Monitoring of products is made in 75% of properties, and is performed by municipal services, which verifies attributes as good production practices and hygiene. A significant number of producers have no knowledge about traceability, certification and safety of food (Figure 4). These results lead to a concern, since consumers are increasingly focused on the quality and origin of the products they buy.

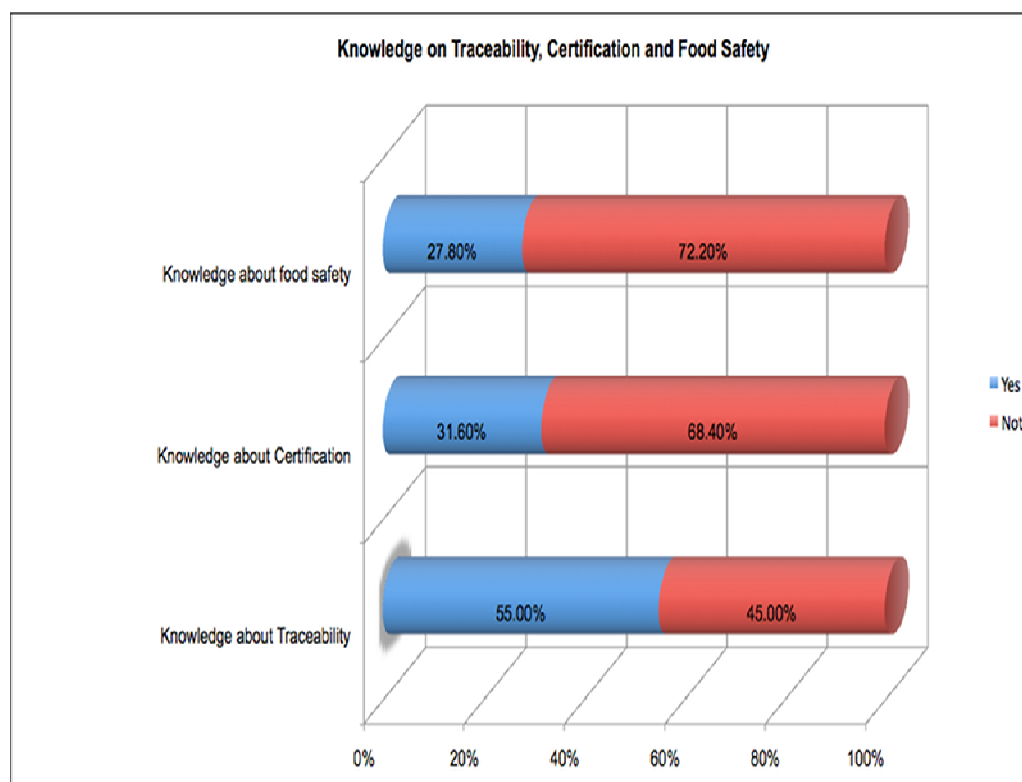


Figure 4. Level of knowledge of farmers with regards to traceability, certification and food safety

However, despite the limited level of knowledge of farmers with regard to traceability, certification and safety of the food, the majority considers these variables as important or very important. This demonstrates that actions related to the improvement of quality and traceability of products, provided that they are implemented for the reality of producer family, tend to be well accepted and put into practice by family farmers (Figure 5).

4.6. Consumers point of view

More than 73% of consumers consider product quality, health control and good practices as fundamental factors for their purchases. Nevertheless, in the local reality, it is still significant the number of consumers who decides their purchases based on the price of the goods. This indicates that farmers should be able to sell products of good quality and with an affordable price, which can only be achieved through productive and strict managerial control. Figure 6 presents the marketing chain.

Results also show that total of the consumers pay in cash at the public market. In this way, the governance structure that persists between buyer and seller is

characterized as market connections, i.e. where it can persist over time with repeated operations. The channel marketing includes the characteristics of rural properties, types of products, procedures, packing, transport, marketing characteristics and the relationship between sellers and consumers.

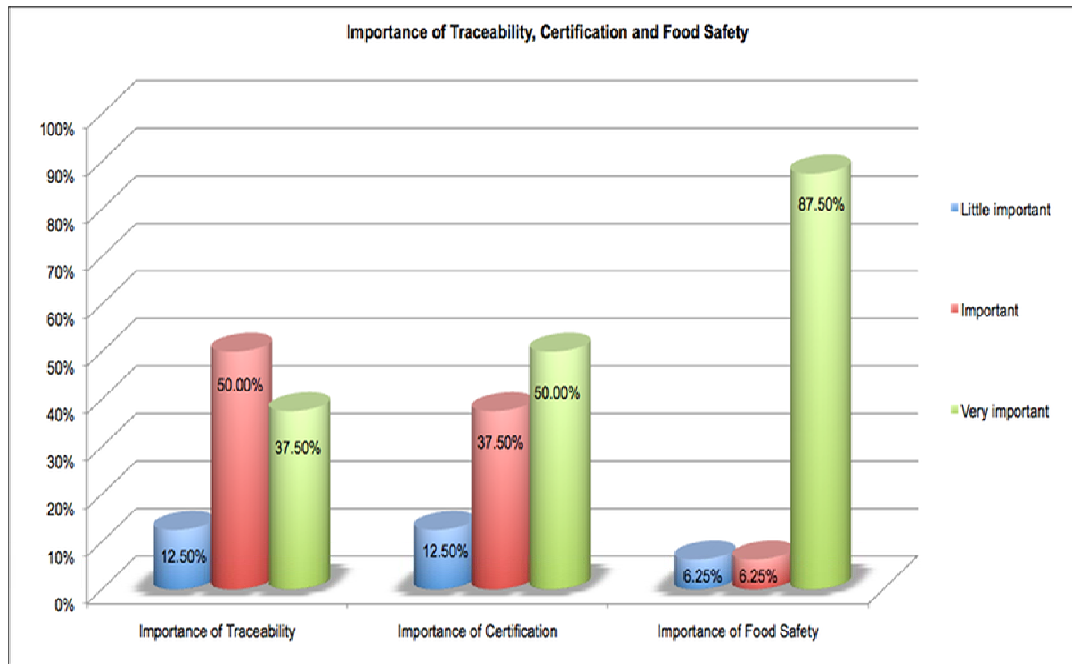


Figure 5. Level of relevance of traceability, certification and food safety on the farmers' perspective

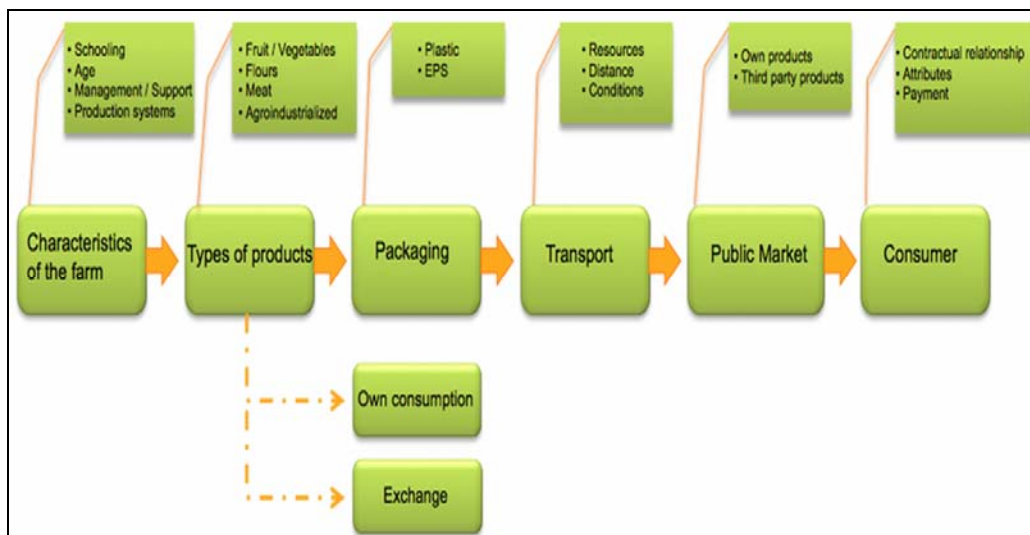


Figure 6. Marketing chain of smallholders

5. CONCLUSIONS

Managing family agribusiness is especially complex because it involves many areas, many of which family producers do not have specific knowledge, which ultimately affect production and economic results. In the case under consideration, the access to alternative sales channels can contribute to greater income of farmers. To do this, it is necessary that the institutions work facilitating the negotiation. In addition, public investments in training of farmers, primarily to improve product quality and management techniques of the activity are in need. There is also a need to encourage the adoption of practices certification and traceability.

Other observed points as bottlenecks of activity and which could be worked on are the transport and storage. Through producer associations, storage rooms and cold rooms could be implemented. Thus, it would be possible to reduce the uncertainty of the sale of the products, ensuring a more stable price over the year and still enabling constancy in supply for consumers.

At same time, improvements in rural roads to reduce the uncertainty of disposing of production should be made, in particular those products highly specific, thus reducing transaction costs. Despite the quality of the food and the use of good production practices be, an important requirement in purchasing decisions on the part of consumers, in the context of the public market of Santa Rosa, the question of confidence which exists between buyer and seller acts as a mechanism of mitigation. Thus, characteristics of the products in markets where the trust between the parties is less are fundamental to the buyer; however in this case study, these points have a minor influence.

This research shows that the pluriactivity is a factor that contributes to greater income of these family farmers. However, the greater the complexity of economic activities the more effective the mechanisms for management should be, because the productive factors and market relations become more complex. The ability to manage efficiently the rural properties is crucial for the sustainable development of Brazilian agribusiness, contributing to the improvement of the quality of life, for fixing the work force in the field and to a cost-effective and environmentally sustainable development.

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CREATIVITY IN MANAGEMENT OF TRANSPORT ENTERPRISE

JANA DICOVÁ, JÁN ONDRUŠ *

ABSTRACT: *The ability of modern enterprise management means to take advantage of unexpected change promptly and better as competition. The function of management in transport is to know dominates the internal and external processes thus the transport enterprise has the success in this environment. Transport management concentrates on assessments of measures of the requirement for convenient transport, the requirements for a particular type of transport and transport service and maintaining the existing market for transport. So transport management examines present situation of transport market and also orientation of next demand trends and opportunities of customer satisfy requirement. The papers deals about implementation of creativity in transport management, which connects with all processes of change that bring a lot of unknown and which present uncertainty, risk and growing potential for conflicts.*

KEY WORDS: *creativity; management; transport; manager; enterprise; creative technique*

JEL CLASSIFICATION: *M10, M21, M54*

1. INTRODUCTION

Trends in transport, transport management and influences of changed passengers' requirement in transport process are focus on increase of transport quality. Also these factors help to contribute of development and utilization of the latest information and communication technology in transport process. The new technology (information and communication) allow creating new services with high added value for users with aim to assign increase safety, reliability and transport services quality with aspect to guaranteed economical and time efficiency of realized processes and reduction of transport negative influences to ecology.

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2. POSSIBILITIES OF USING CREATIVITY IN TRANSPORT MANAGEMENT

Enterprise in transport is influenced by a lot of factors which influence on the results of transport enterprise. The whole process of the determination of the development to future of enterprise in transport is a whole complex of manager skills, abilities, knowledge and technologies. It is especially about managers, who have to place a basic role of transport companies so that a product of transport will get to a customer for the fulfilment of optimal conditions. It should also contribute to the fulfilment of the strategic aims that is the orientation on the quality and completeness of transport in the relation with the orientation on the customer and application of the latest knowledge from the research.

Creativity consists in searching and accepting unconventional ways, new ideas and original solutions. It is irreplaceable where quality improvement, competitiveness and changes in specific scope are needed

All managers in transport enterprise need to create organizational environments in which their own than consists of five environmental components which affect creativity in enterprise (encouragement of creativity, autonomy, resources, pressures, organizational impediments to creativity). Utilization of creativity can be benefit for enterprise and also for their employees. As with innovation, this can be done in the following ways:

- expecting creativity,
- expecting and tolerating failure,
- viewing problems as challenges,
- providing creativity training,
- providing support,
- rewarding creativity,
- modelling creativity.

Organizational creativity may at times be best conceived of in non-linear terms while, in other cases, it may unfold in a more straightforward and sequential manner. Thinking of organizational creativity in more processual terms therefore puts pressure on practicing managers to think outside the specific organizational model they are in charge of (Styhre & Sundgren, 2005).

Manager creative work or process is impacted by many blockades and barriers. In particular:

- *barriers of job* (job place, limiting paradigms, inappropriate mental models, time factors, definition of problems),
- *perception barriers* (the attention is focused on details, being unable to widen the perspective),
- *physical barriers* (tiredness, bodily, condition of environment, non flexibility),
- *barriers of culture and environment*,
- *subjective barriers* (shyness, fear to make mistakes or to be laughed).

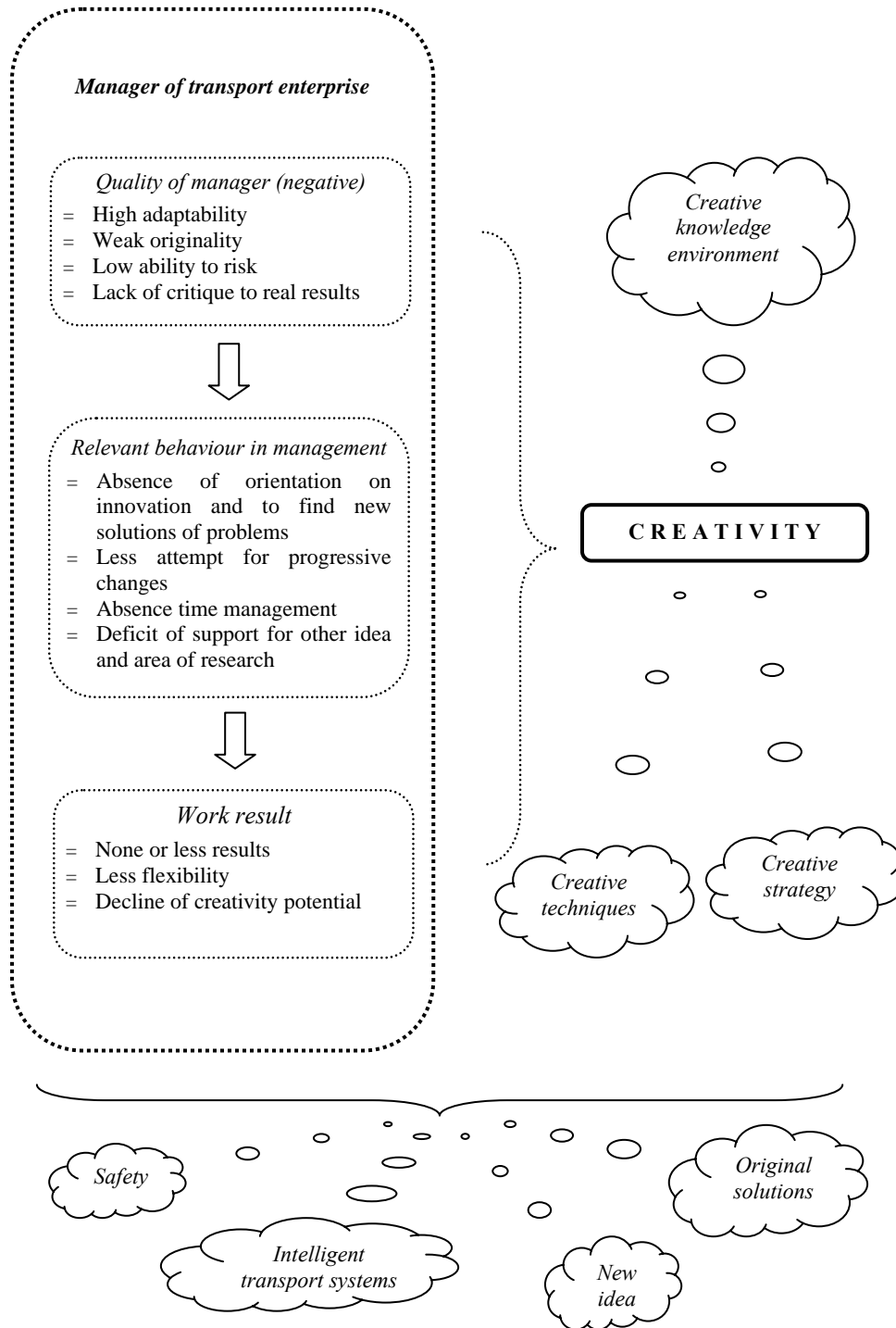


Figure 1. Influence of Creativity to Manager in Transport Enterprise

For elimination of these factors is necessary:

- to create the good creativity climate that is the possible to understand at summary of internal condition impact propitiously or blockade on creativity performance of person or group,
- or application of creative techniques.

Creative techniques are methodology procedure to support human potential to searching of new ideas. Better result that using structure procedure will be with using creative methods and also these methods will be used to go through creativity barriers (Dicová, 2008).

Table 1. View of creative techniques

<i>Creative techniques</i>	<i>Characteristic</i>
<i>Synectic methods</i>	= introduces association of seemingly don't related elements,
<i>Scenarios</i>	= models different variants of future trends and also that, which for now are not actual, = result is chronological occurrences schedule,
<i>Morphologic methods</i>	= introduces systematically-analytic procedure of searching new ideas,
<i>Bionics</i>	= technique and also art how solving complicated tasks by knowledge from biology, = indication is transfer of analogies from nature to social and technical problems,
<i>Techniques of systematic questioning</i>	= enable thorough knowledge, specification of all possible factors of entered problem = serve new impulses to finding, to creative orientation in problems,
<i>Visually methods</i>	= using graphic and pictorial representation of ideas, exercise colours, symbols and informal procedures of creation,
<i>Analogies</i>	= exercise to experience of routine thinking schemes = analogies will be chosen from similar area, that is problem and it will be pictures, procedures, acts and will be analysed from view of structure, function, aspects, surrounding connection, behaviour,
<i>Brainstorming</i>	= methods to finding of new ideas, that using teamwork and cheer to free associations that eliminated limits to problem solving,
<i>Delfts methods</i>	= is based on anonymous proposal and together officiating of individual members team opinions that after few parts of revise attitudes will allow reception team consensus to problem solving.

Creative strategy consists of the guidelines for the thoughts, feelings, and impressions that are communicated with advertising and other marketing communications that help to transport management to increase of transport attractiveness for customer and generates opportunities to achieve of competition advantage (Dicová & Ondruš, 2010)

Creative knowledge environments mean the environments in which new knowledge is produced by people, especially in their work settings. Creative knowledge environments (CKEs) are those environments, contexts and surroundings the characteristics of which are such that they exert a positive influence on human beings engaged in creative in creative work aiming to produce new knowledge or innovations, whether they work individually or in teams, within a single organization or in collaboration with others.

3. CONCLUSION

Strategy of human potential development is increasingly aimed and speaks highly of task and active resources asset in present. The active resources asset consists in human potential abilities and knowledge. Implementation and development of creativity in a lot its aspects are mainly in contact with human potential, partly in connection with individuality quality or by support its development. The creativity will be feasible resource that has economy results in all enterprise management (Dicová, 2008).

An ability of managers to implement of creativity and creative techniques in decision-making presents potential solutions which contribute to the regulation of phenomenon in a near future to a successful operation and development of a transport enterprise. The efficiency, prosperity and a whole success of enterprise in transport depend on these solutions.

Competitive ability of transport enterprise provided service increase with interest in provide services that ensure of realize basic customers objects that are oriented to safety, quality, reliability and also economic acceptability.

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THE ROLE OF COMMUNICATION IN THE EFFICIENCY OF THE SOCIAL DIALOG MANAGEMENT

LUIGI DUMITRESU, MIRCEA FUCIU *

ABSTRACT: *The quality and the efficiency of all the activities developed in the field of the social dialog management are dependent, in great measure by the quality of the communications relations between the involved actors. The increase of the importance of the social dialog is reflected at the level of hundreds of multicultural companies that try to develop a new type of management - the one that has the capacity and the ability of orchestrating the productive combination of individuals and of the efficient functioning within these new cultures. In planning a communications process which is destined to a international auditorium we must analyze every component of this with the purpose of pushing away every barrier of background noise that would alter the desired results.*

KEY WORDS: *social dialog management; negotiation; formal structure; informal structure*

JEL CLASSIFICATION: *M14, M19*

1. INTRODUCTION

The communication barriers are one of the most important factors which influence in a decisive manner the social dialog management. At the international level, these barriers are determined by:

- 1). the misunderstandings due to the used language;
- 2). the cultural shock;
- 3). the reduced listening capacity;
- 4). the ethnocentrism;
- 5). the insensibility;
- 6). the lack of sincerity (Balanica, 2003).

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In this context, the components that must be analyzed in order to process a communication in an international framework or a national one are the same as at an internal level (a company level):

- 1). the message motivation (why do we communicate);
- 2). the content of the message (what do we transmit);
- 3). the receiver (to whom is the message destined to);
- 4). the transmission method (the form and the content of the message);
- 5). the type of message.

The way by which these components are used will influence in a substantial manner the communication, the obtained results being different and are dependent of the type of communication an audience. In order to determine the way these elements are modified, they must be analyzed individually, separately and adapted according to the cultural necessities of the receivers.

2. THE SOCIAL DIALOG MANAGEMENT

In the social dialog management, in order to manage the differences it is recommended as communication tactics: the collaboration or the negotiation by talks. The solving of a social dialog divergence by collaboration represents the transformation of a potential negative conflict in to a positive one by encouraging the cooperation and the mutual understanding.

A useful tool in this case is represented by the confrontation. This allows the acceptance, the legitimate differences between the actors and it perceives the conflict as a natural process in most organizations. The solution for solving this problem is not represented by suppressing the conflicts but by recognizing the differences.

The confrontation in an objective and methodical manner, of the differences linked to the developed activities, often leads to obtaining some agreements between the parties. The efficiency of a confrontation has been demonstrated by Paul Laurence and Joy Lorsch (1967) which after a study developed in 20 companies have concluded that the three most preferment companies are using open confrontation as a way of solving the conflicts. The collaboration and the open confrontation need a high level of confidence between the parts. This mistrust can be achieved by an open behavior of the employees, by avoiding the gossip or by preparation meetings moderated by neutral consultants.

The negotiation by talks is recommended when the involved parties are not capable to transmit and use their information or do not trust the other members. Contrary to collaboration, the negotiation and the talks involve a much more reserved attitude with regard to the manifestation of trust in using the information owned the members of the groups and of the organizations.

The increase of the communication performances in the social dialog management implies the maintenance in a good working order of the communication channels, networks and of the structures between all the components of the organizational structure. The first condition needed to be fulfilled is the elimination of all the obstacles that are in the way of communication. In order to improve the

functioning of the communication in the social dialog management we must respect the following requests (Petrescu, 2005):

- The promotion of the actions that contribute to the increase of the intensity of psychosocial field of communication (the information flows must travel fast and at the best possible quality in order for the intensity of the field to reach maximum levels);
- Creating a balance between the formal structure and the informal structure of the organization, which imposes the integration if the informal objectives with the formal objectives (Nicolescu and Verboncu, 2007);
- Attracting the employees in the act of participating in the decision making process;
- The boosting of the elements that promote the strengthening of the links between the groups (the management groups, the employee group, the professional group) which must reflect the cohesion, solidarity, fast reaction capacity etc;
- Promoting the interest for effective communication between the employees (Mullins and Laurie, 1999);
- The accessibility of the communication language and presenting the basic elements of the transmission and receiving code of the messages between the partners of communication;
- Increasing the role of the group that realizes the control and self-control;
- The diversification of the team work groups;
- The perfecting of the hierarchical structure;
- The elimination of the communication jamming sources with the purpose of maintaining an the accuracy and the clarity of the message;
- The transparency of the decision making process (Nicolescu, 1999).

In the same time, an adequate communication for the social dialog management must be maintained by real, complex and concise information (table 1).

Last but not least, creating an effective communication between partners of the social dialog assumes the reverence of ten rules elaborated by the American Management Association

- The emitter must clarify the ideas, before communicating them, which it involves a deep analysis systematization of them;
- The ones that want to initiate the communication must exanimate the real purpose of the communication in order not to lose themselves in details;
- The ones that communicate must take into account the ensemble of physical and physiological elements of the context;
- The emitter must be careful at the nuances during the communication, as well as the basic meaning of the message;
- The emitter must develop its empathic capacity;
- During the communication, the participants must ask questions and must encourage the reciprocal presentation of reactions, because it demonstrates if the message was or not presented.

- The emitter and the receiver must communicate in perspective as well as in the present;
- The ones that communicate must be certain on support of communication;
- The emitter and the receiver must try not only to understand but also to make themselves understood.

Table 1. The qualitative request of the information for an effective communication

No.	The qualitative feature of the information	Quality specification	Implication of information nonquality
1.	<i>Realism</i>	The correct presentation of the processes and phenomenons from the organization and from the environment.	The false delimited problems. Incorrect decisions Opportunity and financial loses.
2.	<i>Complexity</i>	The presentation of the novelty of the phenomenons and processes from different point of view: economic, technical, ecological etc.	Sequential approach of certain fields or activities. Ignoring some aspects or activities with consequences in time.
3.	<i>Clarity</i>	The synthetic presentation of the message , of the novelty elements.	Difficulties in grasping the essential. Time loses, ambiguities and confusions.
4.	<i>Reliability</i>	The extraction and the conservation of the information substance with importance for the history, the present and the future of the organization.	Lack of continuity. Decisional inconsequence.
5.	<i>Opportunity</i>	The presentation of the information in the volume, structure and the level of processing required at a certain moment.	Premature decisions, lack of organizational, social and economical conditions. Delayed decisions, consuming the best moment can affect the reputation of the managers.

In the social dialog management, more that in any other field, the communication is the essence of practical actions, between these and the notions of efficiency, competence and prestige can be made equal.

The communication in the social dialog becomes efficient if the messages transmitted travel in both ways, from the emitter to the receiver and reverse, in the situation of transmitting the information as well as in the transforming actions. Most of the times it is necessary to verify if the social dialog managers affirmations have been correctly and entirely received, if they were completely accepted or just formally. Because of this, the correct feedback, the emitter must respond promptly and correctly at the receiver's questions, to motivate the employees in order to fulfill the designated tasks.

The analysis of the difficulties and of the disturbances related to the communication process within the Sibiu County Council has shown the fact that the main factor is the lack of feedback, which allows the receiver (citizen, executive directors, etc.) to present the reactions, and the emitter (public servant, spokesmen, etc.) to record them. The analysis has allowed the formulation of different functions that the Sibiu County Council should fulfill:

- The control function of understanding and receiving the message in good conditions;
- The adjustment function of the message at the characteristics of the actors that participate at the social dialog at the difficulties faced.
- The social adjustment function by the flexibilization of the roles and the functions fulfilled by different partners;
- The socio-affective function (the feedback must increase the internal safety and the satisfaction of the social dialog actors).

The efficiency of the communication of the Sibiu County Council is determined by individual variables of those involved in the social dialog as well as organizational variables, of technical nature, technological and organizational one.

The efficiency of the social dialog is in equal measure conditioned by the interpersonal and organizational communication. From this perspective the Sibiu County Council must establish norms and regulations with regard to the communication in the social dialog with other partners and communication channels with feedback.

Because the social dialog management has certain finality, the insurance of a good relationship between the members of the organizational and institutional communities, as well as the insurance of well being and social equity, the morality of the Sibiu County Council employees is mandatory. In consequence the conduct of these employees is regulated by the code of conduct of the public servant. The analysis has sown the need for developing ethical codes, moral conduct systems that are in accordance with every compartment taking into account the specific nature of the public servant with regard to the citizen.

3. CONCLUSIONS

The communication is a highly complex process; it is difficult to decipher which imposes development of the social dialog management. There is a need for simplifying this process in order to have a better understanding of it and to avoid the implications and the possible conflicts that might emerge in communicating.

The communication appears in the social dialog management as a psychological problem of great importance to the inter-human relationship system. Directly or indirectly, formal or informal, people are in a permanent state of contact at the level of the professional activity or of the personal relations, and the links established by them in these fields give birth to a complex network of communication. The success in the field of social dialog management depends on the style of communication used by the employees and by the other social actors or partners from the business world.

The moral dimension of the communication process is treated at the level of organizational ethics and of decisional transparency as growth factors of the efficiency of the social dialog. This happens especially in conflict situations, when the communication can influence the effects of the social dialog and especially its social efficiency within the organization.

Finally, the need of more transparency in the activity of the Sibiu County Council is the last solid conclusion of our analysis. The citizens' free access to the public information that presents the organization and the functioning of the Sibiu County Council is a condition of an effective social dialog. The public well being, the ethics and the transparency must become major points in the way of developing a innovating vision of the Sibiu County Council.

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IMPACT OF THE FOREIGN DIRECT INVESTMENT FROM THE MANUFACTURING SECTOR ON THE ROMANIAN IMPORTS OF INTERMEDIATE GOODS AND OF RAW MATERIALS

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ABSTRACT: *Increasing exports by stimulating the foreign direct investment could be a solution to the problem of the persistent trade balance deficit of Romania. However, in such an attempt there have to be taken into consideration the potential effects of the foreign direct investment on some categories of imports. This paper explores the dynamic relation between the foreign direct investment from the manufacturing sector and the Romanian imports of intermediate goods and raw materials. We found causality linkages between the foreign direct investment and the imports of intermediate goods, meaning that Romanian branches of the multinational companies prefer to import such goods instead of producing or buying from the domestic markets. Instead, we failed to identify any causality between the foreign direct investment and the imports of raw materials.*

KEY WORDS: *foreign direct investment; imports; causality; cointegration; Romania*

JEL CLASSIFICATION: *F21, F23*

1. INTRODUCTION

The relation between the foreign direct investment from the manufacturing sector and the importers of intermediate goods and raw materials is important from the Romanian foreign trade unsustainable disequilibrium perspective (Figure 1). In the

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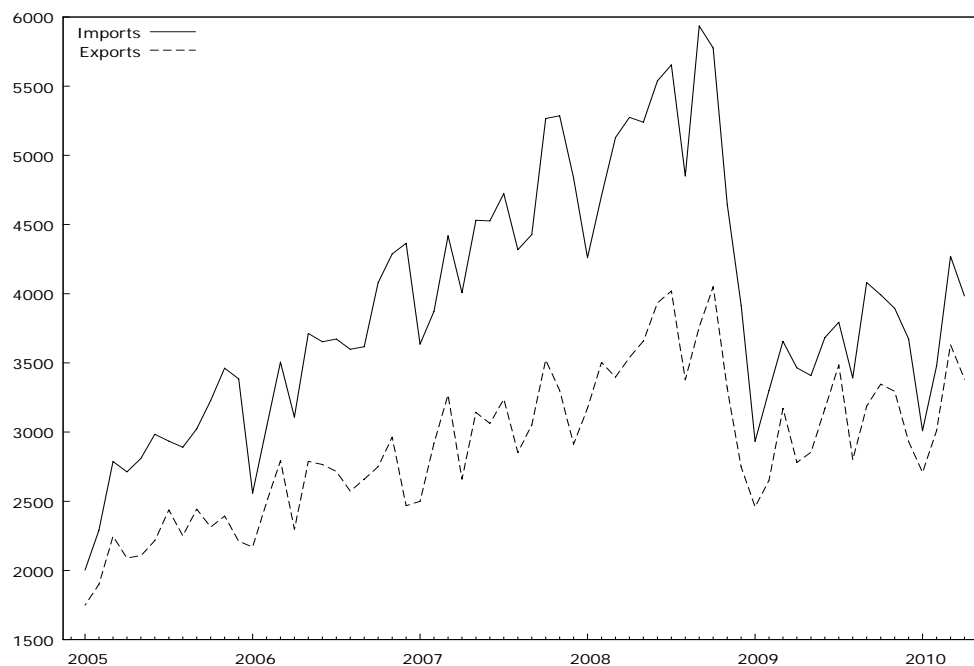
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recent period the trade balance deficit increased significantly, imposing an active policy of the Government. However, its possibilities of intervention are limited. As a member state of the European Union Romania can not apply unilaterally classic tools of the commercial policy: customs duties or subsidies for the exporters. In this context, three main directions could be followed for cutting the foreign trade deficit: Government assistance for the exporters, devaluation of the national currency and efforts for attracting the foreign direct investment.



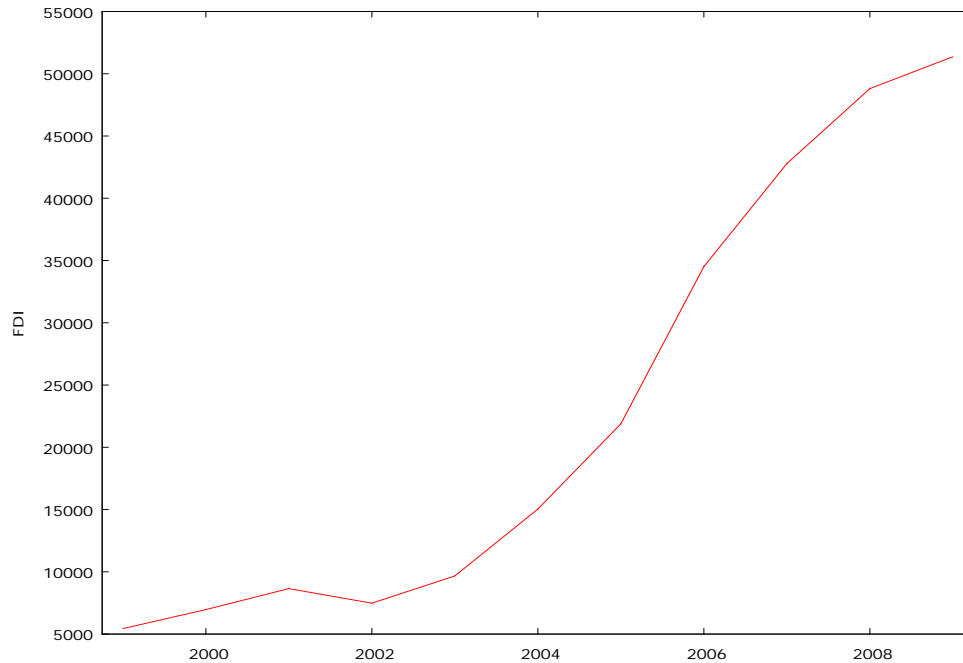
Source: National Bank of Romania

Figure 1. Evolution of the Romanian Exports and Imports between January 2005 and April 2010 (mil. Euro)

Until now the Government programs for assisting the exporters had modest results. Moreover, the global crisis diminished drastically the available resources for these programs. Because of the National Bank of Romania (NBR) reticence, the devaluation of the national currency was not largely applied to stimulate the competitiveness in the international business. In comparison with other former socialist countries Romania implemented quit late policies to attract foreign direct investment. Until 1999 the inflows of foreign capital were rather insignificant. However, in the last years, some comparative advantages offered by the Romanian business environment, especially the cheap labour force motivated the multinational companies to establish branches in Romania (Figure 2).

In 2009 about three quarters from the Romanian exports were realized by branches of some multinational companies. Anyhow, the foreign direct investment also

caused an imports increase (Dumitriu, et al., 2009). The relation between imports and the foreign direct investment is complex. The imports may stimulate the foreign direct investment, offering knowledge about the markets from the host countries (Pugel, 2000). Based on this knowledge a multinational company may decide to produce at local level the goods for those markets (Markusen, 1995).



Source: National Bank of Romania

Figure 2. Evolution of the Foreign Direct Investment (FDI) in Romania between 1999 and 2009 (mil. Euro)

Depending on the specific of the activity the foreign direct investment may cause either the increase or the decrease of the imports. In order to satisfy some exigences of quality certain branches of the multinational companies prefer to import ranges of raw materials or of intermediate goods used in the production process (Pacheco-López, 2005). In the same time, the production of these branches may substitute the imports of some goods and services (Markusen & Venables, 1999).

In this article we approach the relation between the foreign direct investment from the productive field and the Romanian imports of intermediate goods and raw materials. In the year 2009 the intermediate goods and the raw materials represented about 40%, respectively, about 12% from the total of imports. In this study we test the Granger causalities and the cointegration between the variables. The results may be useful for understanding the efficacy of using the foreign direct investment as a tool for diminishing the deficit of the commercial balance.

2. DATA AND METHODOLOGY

We employ quarterly values of the imports for intermediate goods, of the imports for raw materials and of the foreign direct investment from the manufacturing sector, provided by the Romanian National Institute of Statistics. Our sample of data covers a period of time from the first quarter of 1999 to the first quarter of 2010. All the data are deflated by Consume Price Index and seasonally adjusted by ARIMA X 12. We use the following notations: *rmig*, as natural logarithm of the real seasonally adjusted imports of intermediate goods; *d_rmig*, for the first differences of *rmig*; *rmm*, as natural logarithm of the real seasonally adjusted imports of raw materials; *d_rmm*, for the first differences of *rmm*; *rfdim*, as natural logarithm of the real seasonally adjusted foreign direct investment from the manufacturing sector; *d_rfdim*, for the first differences of *rfdim*.

The stationarity of data is analyzed by the Augmented Dickey Fuller (ADF) tests and the unit root test with structural breaks proposed by Saikkonen and Lutkepohl (2002) and by Lanne et al (2002). The numbers of lags are chosen based on Schwartz Bayesian Criterion (BIC). We investigate the cointegration between the foreign direct investment and the imports by the Johansen procedure. For this method, the number of lags is chosen based on three criteria: Akaike criterion (AIC), Schwartz Bayesian criterion (BIC) and Hannan-Quinn criterion (HQC). In the case of the cointegration of two variables is confirmed we study their interactions in a VECM (Vector Error Correction Model) framework. In the absence of the cointegration we employ a VAR (Vector Autoregressive) model.

We analyze the causal relation between the foreign direct investment and the imports using the Granger causality methodology (Granger; 1988). Testing the Granger causality between two stationary variables *X* and *Y* is based on the regression:

$$Y_t = \beta_0 + \sum_{i=1}^n \beta_i * Y_{t-i} + \sum_{j=1}^n \gamma_j * X_{t-j} + \varepsilon_t \quad (1)$$

where ε_t is an error term with zero mean

The null hypothesis “*X* does not Granger cause *Y*” is similar with the condition: $\gamma_1 = \gamma_2 = \dots = \gamma_j \dots = \gamma_n = 0$. The significance of these coefficients is investigated using a Wald test. If the two variables are cointegrated Granger causality is present in at least a direction (Granger; 1988). In that case a VECM framework could be used to identify the causalities.

3. EMPIRICAL RESULTS

3.1. Stationarity of the variables

The results of the ADF tests for the six time series are presented in the Table 1. They indicate that all three variables are non stationary in levels values but stationary in their first differences. In the Table 2 there are presented the results of the unit root test with structural breaks. They confirm that all three variables are integrated at the order one.

Table 1. Augmented Dickey-Fuller Test Statistics for the six time series

No.	Variable	Lagged differences	Test statistic	Asymptotic p-value
1	rmig	5	-0.86379	0.9584
2	d_rmig	3	-3.50803	0.0004***
3	rmm	5	-2.10784	0.5409
4	d_rmm	3	-3.29645	0.01507**
5	rfdim	5	-1.7022	0.7506
6	d_rfdim	4	-4.70196	0.0001***

Notes: For the levels time series, a constant and a trend were included, while a constant only was imposed on the first differences time series. The lagged differences were chosen based on the Schwartz Bayesian Criterion (BIC). ** and *** denote the rejection of the null hypothesis of a unit root at 5% and 1% respectively.

Table 2. Unit root test with structural breaks for the six time series

No.	Variable	Lagged differences	Break date	Test statistic
1	rmig	5	2009 Q2	- 1.902
2	d_rmig	3	2009 Q2	-3.7106***
3	rmm	5	2009 Q2	-1.6021
4	d_rmm	3	2009 Q2	-2.6172**
5	rfdim	5	2009 Q1	-1.6942
6	d_rfdim	4	2009 Q1	-4.6515***

Notes: Impulse dummies were used as shift functions. For the levels time series, a constant and a trend were included, while a constant only was imposed for the first differences time series. The lagged differences were chosen based on Schwartz Bayesian Criterion (BIC). The critical values for the levels time series are -3.55, -3.03 and -2.76 for respectively 1%, 5% and 10% significance. Critical values for the first differences time series are -3.48, -2.88 and -2.58 for respectively 1%, 5% and 10% significance. **, and *** denote the rejection of the null hypothesis of a unit root at 5% and 1% respectively.

3.2. Analysis of the dynamic relation between rmig and rfdim

The results of the Johansen cointegration tests are presented in the Table 3.

Table 3. Results of the Johansen cointegration tests for rmig and rfdim

Lag order	Rank	Eigenvalue	Trace test	p-value for Trace test	Lmax test	p-value for Lmax test
AIC:5	0	0.24495	15.381	0.0505	11.239	0.1441
	1	0.098377	4.1424	0.0418	4.1424	0.0418
BIC, HQC:1	0	0.70239	79.079	0.0000	53.327	0.0000
	1	0.44305	25.752	0.0000	25.752	0.0000

For a number of 5 lags, chosen based on the Akaike criterion, they indicate that rmig and rfdim are cointegrated. Instead, when we used one lag, as the Schwartz Bayesian criterion and the Hannan-Quinn criterion suggest, we can not reject the hypothesis of no cointegration between the two variables.

For the situation in which *rmig* and *rfdim* could be considered as cointegrated we analyzed their interactions in a VECM framework. The parameter of the two equations, presented in Table 4, suggest that *rfdim* impact on *rmig* is much more consistent than the impact of *rmig* on *rfdim*.

Table 4. Vector Error Correction Model for *rmig* and *rfdim*

Equation 1: *d_rmig*

	Coefficient	Std. Error	t-ratio	p-value
const	2.54484	0.817755	3.1120	0.00406***
<i>d_rmig</i> 1	0.335126	0.334659	1.0014	0.32465
<i>d_rmig</i> 2	0.521773	0.286326	1.8223	0.07839*
<i>d_rmig</i> 3	0.2893	0.359142	0.8055	0.42685
<i>d_rmig</i> 4	0.0825545	0.167727	0.4922	0.62616
<i>d_rfdim</i> 1	-0.0136974	0.0289051	-0.4739	0.63902
<i>d_rfdim</i> 2	-0.0199668	0.0256176	-0.7794	0.44184
<i>d_rfdim</i> 3	-0.0329841	0.0244191	-1.3508	0.18688
<i>d_rfdim</i> 4	-0.0148867	0.0225856	-0.6591	0.51484
EC1	-1.14183	0.366769	-3.1132	0.00405***

Mean dependent var	0.004220	S.D. dependent var	0.021811
Sum squared resid	0.009717	S.E. of regression	0.017998
R-squared	0.476233	Adjusted R-squared	0.319103
rho	-0.022553	Durbin-Watson	2.040623

Equation 2: *d_rfdim*

	Coefficient	Std. Error	t-ratio	p-value
const	5.80399	8.48207	0.6843	0.49906
<i>d_rmig</i> 1	-0.109628	3.47121	-0.0316	0.97501
<i>d_rmig</i> 2	3.60192	2.96989	1.2128	0.23467
<i>d_rmig</i> 3	0.903202	3.72516	0.2425	0.81007
<i>d_rmig</i> 4	3.03213	1.73973	1.7429	0.09160*
<i>d_rfdim</i> 1	0.0692118	0.299814	0.2308	0.81900
<i>d_rfdim</i> 2	0.0404675	0.265715	0.1523	0.87997
<i>d_rfdim</i> 3	-0.414772	0.253284	-1.6376	0.11196
<i>d_rfdim</i> 4	0.000351776	0.234266	0.0015	0.99881
EC1	-2.59135	3.80427	-0.6812	0.50099

Mean dependent var	0.066980	S.D. dependent var	0.187586
Sum squared resid	1.045458	S.E. of regression	0.186678
R-squared	0.238201	Adjusted R-squared	0.009662
rho	-0.067832	Durbin-Watson	2.123999

In the Table 5 there are presented the results of the Granger causality tests between *rmig* and *rfdim*. For a number of 5 lags, chosen by the Akaike criterion, we identify a bi-directional causality. Instead, when we used only one lag, as Schwartz

Bayesian criterion (BIC) and Hannan-Quinn criterion recommended, we found uni-directional causality: rfdim Granger-cause rmig but rmig do not Granger-cause rfdim.

Table 5. Granger causality tests between rmig and rfdim

Lag order	Null hypothesis	F-statistic	p-value	Causal inference
AIC:5	rfdim do not Granger-cause rmig	4.1926	0.0019	rfdim Granger-cause rmig
	rmig do not Granger-cause rfdim	6.8173	0.00001	rmig Granger-cause rfdim
BIC, HCQ:1	rfdim do not Granger-cause rmig	11.3017	0.0001	rfdim Granger-cause rmig
	rmig do not Granger-cause rfdim	0.5034	0.6067	rmig do not Granger-cause rfdim

The Figure 3 shows the impulse - responses between rmig and rfdim in a VECM framework. A shock in rfdim leads to a persistent raise of rmig. A shock in rmig determines a fluctuant raise of rfdim.

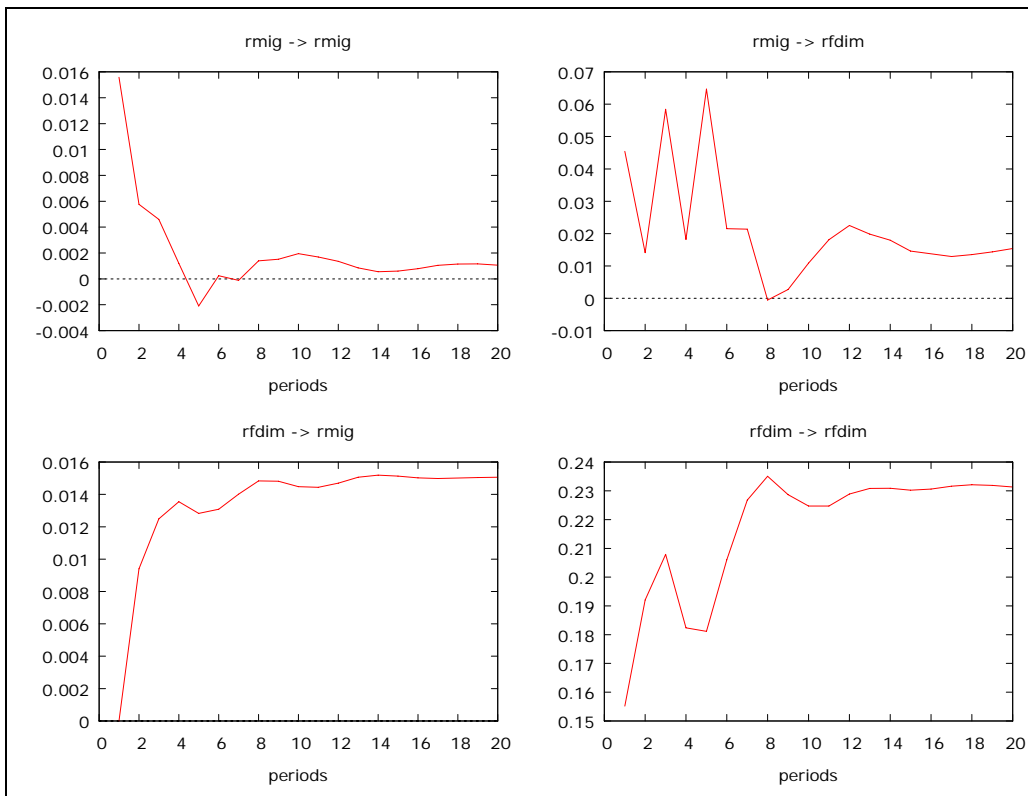


Figure 3. Impulse - responses between rmig and rfdim in a VECM framework

3.3. Analysis of the dynamic relation between rrmr and rfdim

In the Table 6 there are presented the results of the Johansen cointegration tests for rrmr and rfdim. For all the three criteria, they indicate that we can not reject the hypothesis of no cointegration between the two variables. We tried to analyze the interactions between their first differences but we found no suitable model.

Table 6. Results of the Johansen cointegration tests for rrmr and rfdim

Lag order	Rank	Eigenvalue	Trace test	p-value for Trace test	Lmax test	p-value for Lmax test
AIC:2	0	0.34984	23.183	0.0023	18.513	0.0085
	1	0.10291	4.6699	0.0307	4.6699	0.0307
BIC, HQC:1	0	0.74917	65.101	0.0000	60.851	0.0000
	1	0.092072	4.2500	0.0393	4.2500	0.0393

Since rrmr and rfdim are not nor stationary in levels values nor cointegrated, we used, for the Granger causality tests, their first differences. The results, presented in the Table 7, indicate no Granger causality between the two variables.

Table 7. Granger causality between d_rrmr and d_rfdim

Lag order	Null hypothesis	F-statistic	p-value	Causal inference
AIC:2	d_rfdim do not Granger-cause d_rrmr	0.0413	0.9596	d_rfdim do not Granger-cause d_rrmr
	d_rrmr do not Granger-cause d_rfdim	1.3359	0.2692	d_rrmr do not Granger-cause d_rfdim
BIC, HCQ:1	d_rfdim do not Granger-cause d_rrmr	0.0008	0.9774	d_rfdim do not Granger-cause d_rrmr
	d_rrmr do not Granger-cause d_rfdim	0.0945	0.7593	d_rrmr do not Granger-cause d_rfdim

4. CONCLUSIONS

In this paper we analysed the dynamic relations between the foreign direct investment from the manufacturing sector and the Romanian imports of intermediate goods and raw materials. We found cointegration and causality relations between the foreign direct investment and the imports of intermediate goods. This situation could be explained by the fact the production of the foreign direct investment incorporate largely intermediate goods. In general, for such components there are required high quality standards, which are difficult to be satisfied by the domestic producers.

Between the foreign direct investment from the manufacturing sector and the imports of raw materials we found neither cointegration nor causality relations. For many sortiments of raw materials the required standard quality is not as high as for the intermediate goods, so they could be obtained from the domestic markets. Moreover, many brownfield foreign direct investments use the same raw materials as before changing the owners.

The intermediate goods imports increase should be taken into consideration in evaluating the effects of the foreign direct investment on the Romanian trade balance. However, this situation could suffer certain changes in the next year. After accumulating enough experience and knowledge, some managers from the branches of the multinational companies could decide to produce by themselves basic components instead of importing them. Moreover, the modern technology diffusion stimulated by the foreign direct investment could facilitate the domestic production of such components.

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THE ROLE AND IMPLICATIONS OF TELEMARKETING IN MEDIA. CASE STUDY: TRANSILVANIA EXPRES DAILY PUBLICATION OF BRASOV

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ABSTRACT: *During crisis, one of the first measures taken by the leadership management is the reduction, sometimes major, of marketing budgets. But, during this period, the promotion is essential and neglecting the communication actions may lead to significant losses on a long term basis. In the current economic context, the main purpose of any promotional campaign should be to obtain a direct answer from those exposed to message. A solution in this sense is to create the telemarketing which may reduce costs even by half (if it is integrated within the general marketing strategy) and may significantly increase the amount of sales, offering many benefits, unable to be obtained through other sales techniques.*

KEY WORDS: *media; telemarketing; sales; communication*

JEL CLASSIFICATION: *M31*

1. INTRODUCTION

Telemarketing is the process of using phone as an appropriately managed part of the marketing mix together with sales and technical assistance. This differs from the phone sales whose purpose is to sell over the phone (Stone, et al., 2006, p.221). If **phone sales** rely on individual communication, on the operators' own methods and the goal to sell a product/service, in **telemarketing** the message is controlled, it uses structured scenarios and the objectives vary. The use of telemarketing is not a recent thing, but, during the last years, it has recorded a major development with the increase in the number of call-centre platforms and other phone centres.

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2. CHARACTERISTICS OF TELEMARKETING

Telemarketing refers to the integrated and systematic use of telecommunications and information processing technologies, as well as certain management systems in order to improve the marketing communications mix used by an organisation to contact their customers. The phone marketing maintains a customized interaction with the customers while pursuing a better knowledge of their needs and enhancing the economic efficiency of the organisation's business (Stone & Wyman, 1986, pp. 5). There are four categories of the main uses of telemarketing (Thomas, 1998, pp. 586): 1. *Generating new transactions*: searching for new customers; sales; taking the orders; prospect for contract reiteration; transforming demands into orders; 2. *Customer services*: ensuring good relations with the public; fast taking of calls; solving complaints and having a dialogue with unsatisfied customers; collecting payments falling due; 3. *Communication*: sending and receiving messages; sending and receiving telex and fax messages (by modem and appropriate equipment); 4. *Research*: collecting data; connecting with a data viewing system (via modem and a computer terminal).

An efficient telemarketing program should allow operators: to understand the expectations and needs of concerned consumers; to present the characteristics of products/services; to point out the advantages of purchasing products/services; to reply to objections or fears of concerned consumers. The telemarketing activity consists of two important categories: "**outbound telemarketing**" (active telemarketing campaigns) - the organisation takes the initiative to effectively start and achieve communication; "**inbound telemarketing**" (passive telemarketing campaigns) - the consumers take the initiative to effectively start and achieve communication.

The most frequently implemented **active phone marketing campaigns** include those whose purpose is (Veghes, 2003, p.241): to make certain sales preparations ("lead generation") and to qualify the organisation's possible customers (identifying the individual or institutional customers of organisation by the highest predilection towards buying its products and services); to promote and sell over the phone certain organisation's products and services (effective sales of certain products or services to individual or institutional customers of organisation, who have been "qualified" or not after performing certain preliminary activities); to carry out certain activities of market prospecting and recruitment of new customers or business partners of organisation (it is an activity highly similar to the one dedicated to sales preparations and it has many elements in common with the active phone sales programs).

The **passive phone marketing campaigns** consist of a series of activities which include: receiving the call; taking the orders placed by consumers; an analysis of the customer by recording the consumers' reactions after conducting some direct marketing campaigns; removal of nonconforming data from the data basis/improvement of data basis; providing additional information requested by consumers concerning the products/services of organisation; customer post-sales support; complaint solution. Generally, the services necessary to make and implement an active or passive telemarketing campaign are offered by the so-called **call-centres**.

They bring the human factor and technology together which both converge towards the same goal, namely to satisfy the customers' needs, which is one of the most efficient ways to maintain a relation with them.

These modern centres of call taking and making, equipped with different types of technologies, ranging from "Interactive Vocal Answer" (IVA) and "Automated Call Distribution" (ACD) to vocal recognition (VR) software, are based on the staff who has a critical role in this way of communicating a campaign. Whether "in-house" or outsourced, whether labelled as "inbound" or "outbound", or if it incorporates computer solutions of resource management, management analysis, the Call-Centre has become an indispensable centre for large businesses or for social service providers, a supporter of their image and, last but not the least, an efficient communication channel with the external environment. Using the phone in direct marketing is not as simple as it seems. When a market research is conducted to find new customers, it is necessary to answer a series of questions (Marin, 2006, p.136): "Who should be called?" "How to find names and phone numbers of possible customers?" "What are the preferences of possible customers?" "Which is the best moment of the day to make a call?" "What elements should be recorded?" "How frequently phone calls should be made?"

The **advantages of telemarketing** consist of (Zaiț, et al., 2006, p.69): facilitating immediate dialogue; interactivity; selectivity (accurate segmentation); fastness; flexibility (changing action according to degree of answer); speeding up the sales process - cutting short the decision process; a much higher impact of message than in the case of other forms of direct promotion; creating opportunities to the organisation to expand its availability to customers' requests, 24 hours a day, 7 days a week; possible quantitative, but also qualitative, assessment and control.

The **main disadvantages of telemarketing** refer to (Claeyssen, et al., 2009, p.270): *high costs* - the cost of a contact is much higher compared to other direct marketing supports (ex.: e-mail or mail); *necessary training of provider* - whether services are provided by an external provider or by the organisation's staff within a dedicated call-centre, training is often necessary to instruct telephone operators; *it is sometimes repulsive* because the phone marketing, mainly the one addressed to physical persons, is sometimes perceived as a true advertising aggression.

The telemarketing suits the products/services where the decision to buy is based on subjective arguments, in which case rapid actions should be taken to make the buyer start the purchasing process.

3. CASE STUDY: THE TELEMARKETING CAMPAIGN FOR THE TRANSILVANIA EXPRES DAILY PUBLICATION OF BRASOV

The *Transilvania Expres* daily publication emerged on September 8th 1993, and the first number was dedicated to the 4th edition of the „Golden Deer International Festival” when the print circulation reached 20,000 copies and it was distributed free of charge. This daily publication is published by S.C. Tipotex S.A. of Brasov. Currently, *Transilvania Expres* is a market leader in paid daily publications of Brasov County, with an average number of 8,448.5 copies sold per issue in 2009, according to the Romanian Audit Bureau of Circulation (BRAT).

The telemarketing activity of Transylvania Express daily publication consists in: **1. Active telemarketing campaigns.** The subscription campaign is conducted in the first and fourth quarter in order to increase the number of subscribers. The research among the subscribers from the database is focused on their degree of satisfaction regarding the distribution methods of the newspaper and its content. Applying a questionnaire with short questions to a representative number of subscribers, SC TIPOTEX S.A. had the possibility of improving its services. **2. Passive telemarketing campaigns.** Through a specialized office (the TEXpert Public Relations Office), the newspaper's readers may submit complaints to the Editorial Board of Transylvania Express in order to solve them through surveys and articles published in the newspaper. The readers have at their disposal a phone number and an e-mail address to send the notifications. The SMS is one of the subscribing methods to Transylvania Express daily publication. The persons interested in subscribing has to send an SMS with the "SUBSCRIBER" text to 0740+ Subscriber (0740 226 628).

In 2008 *Transylvania Express* starts using telemarketing to attract new subscribers and to keep existent ones. Thus, the purpose of using the phone is to sell subscription packages directly to physical persons as possible subscribers to the publication. The telemarketing agents have an important role in this activity. They must have pleasant voices and communication and negotiation skills.

The subscribing process to the *Transylvania Express* daily publication through telemarketing consists of the following stages: **Stage I.** Calling physical persons taken from the data basis by the telemarketing agent and presenting the subscription offer. The telemarketing campaigns address to physical persons because they have the power of decision and thus telemarketing agents can easily obtain a yes or no answer from them regarding the subscription offer presented. They do not address to legal persons because it is difficult to contact the persons who have power of decision within the organisation and in most of the cases the agents discuss with manager assistants who fail to present the subscription offer to their managers and give a negative answer to the offer, even if they do not have power of decision. The phone numbers of persons called are taken from the data basis of S.C. TIPOTEX S.A. or from Golden Pages.

The telemarketing activity is not made randomly, but is properly focused on the target group which consists of: **1. Former clients who have not subscribe anymore for various reasons.** Former clients are easily persuaded to subscribe again (Eastman, et al., 2004, p.142) compared to those who have never subscribed to the newspaper, because they know the publication and they benefited form subscription services at least a month. **2. Persons who never subscribed to the newspaper.** The potential subscribers to Transylvania Express daily publication are people living in the city of Brasov and on the streets that are in the coverage area of the companies that distribute the newspaper.

The Tipotex company hasn't the necessary resources for the acquisition of complex database of potential subscribers that can be selected according to several criteria of segmentation (age, gender, occupation etc..) and it uses the database consisting of Romtelecom subscribers who can be found in Yellow Pages publications. The working schedule of the Telemarketing Department staff is Monday to Friday, 4.00 P.M. to 8.00 P.M. because on business days and during these hours the possible

subscribers are willing to answer the phone and they show interest in the subscription offer to the newspaper. The telemarketing agents are paid according to the number of subscriptions completed, based on a commission chart, and each month they conclude subscriptions for the next month. The former clients who haven't subscribe again to the *Transilvania Express* are called in the first half of the month and the reasons of not subscribing anymore are centralized in order to improve the delivery services and the content of the newspaper.

Stage II. If an affirmative answer is given, the subscription details are then discussed: day and time of meeting with a subscription agent, period of subscription, type of subscription, and confirmation of delivery address. Among the persons who say on the phone that they intend to subscribe to *Transilvania Express*, 10-15% of them change their mind before the meeting with the subscription agent. In order to limit this percentage in the physical persons changing their mind, the telemarketing agents set up a meeting on or the second day after the day of call.

Stage III. The telemarketing agent transmits to the subscription agreement agent the details on the subscriptions. The telemarketing agent and the subscription agreement agent should collaborate very well in order to avoid subscription refusal because of incorrect fixing of meeting dates and times.

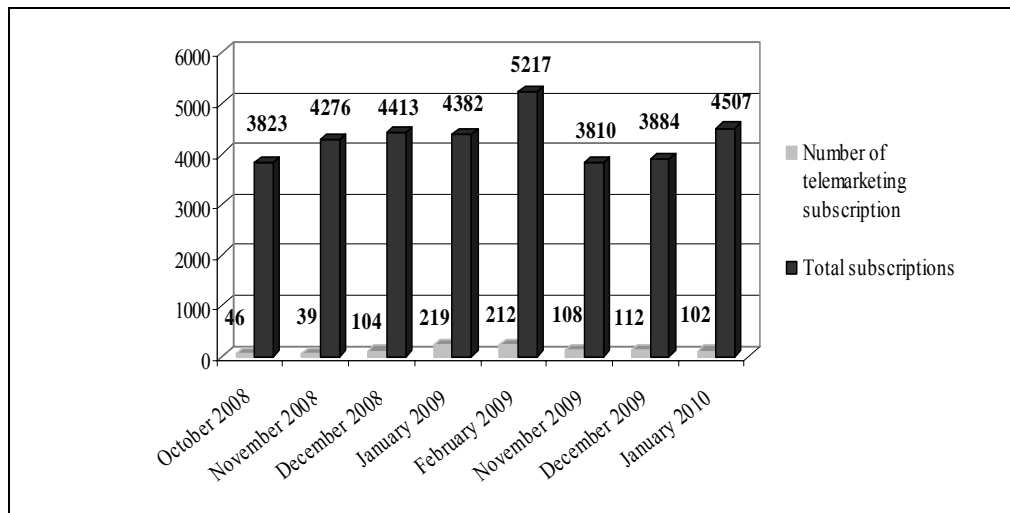
Stage IV. The meeting between the subscription agent and the natural person interested in the *Transilvania Express* offer and the effective conclusion of subscription. At this stage, by the way of presenting the offer, the agreement agent may positively influence the possible subscribers in extending the subscription period, or negatively if he/she does not comply with the meeting date and time which leads to subscriptions being refused. The telemarketing campaigns begin at the end of year when launching subscription packages for the following year. Holidays and leave periods are avoided because during these periods of time the persons called are not willing to discuss with telemarketing agents and the weight of negative answers exceeds 70%.

The number of *Transilvania Express* subscribers attracted through telemarketing campaigns range between 1 and 10% of the total number of persons called. This low percentage is due to the population disbelief in the products and services sold over the phone, the discontent of the subscription delivery ways and of the subscription rate. In order to get positive answers from the persons called, subscriptions are offered on promotion rates to certain categories of people such as the retired, university students, school pupils, the unemployed, and CDs/DVDs are offered as gifts to those who subscribe for a period exceeding 6 months. The number of *Transilvania Express* subscriptions concluded through telemarketing has increased from 46 in September 2008 to 219 in December 2008 (Figure 1).

This increase in the number of subscriptions concluded through telemarketing is due to: an increase in the number of employees from 2 to 5 and intensive work (Figure 2.); accumulation of experience and decrease in the degree of fluctuation of telemarketing agents; favourable period the first half of December and the second half of January when the population is willing to subscribe to *Transilvania Express* daily publication for the next year.

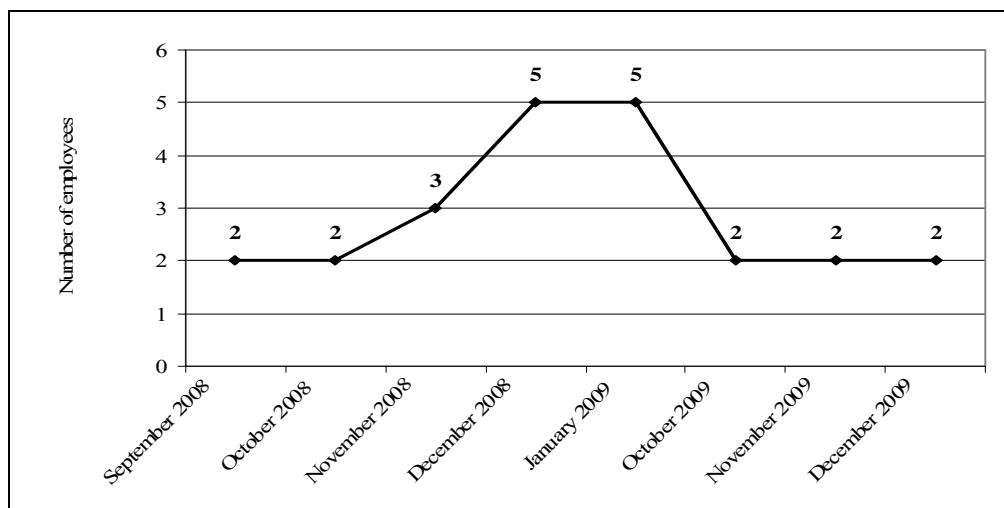
Upon analyzing Figure 3 it can be noticed that 74.93% of the subscriptions concluded through telemarketing are valid for one month, because the new subscribers

monitor for one month the quality of the newspaper information and distribution (delivery hour, number of newspapers delivered in one month, behaviour of courier). Then, according to these criteria they will extend the subscription period or refuse the subscription.



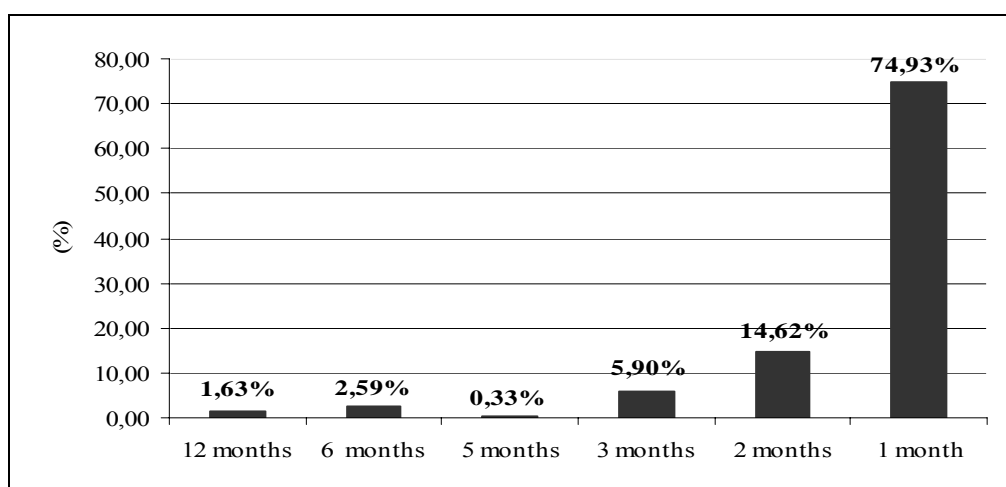
Source: Internal data of S.C. Tipotex S.A and the Romanian Audit Bureau of Circulation (2010), release figures for the Transilvania Express publication, [Online], Available at: <http://brat.ro/index.php?page=publications&id=129&index=1&indexPer=0>, [Accessed 19 June 2010]

Figure 1. The number of subscriptions concluded through telemarketing and the total number of subscriptions to the Transilvania Express daily publication, from October 2008 to January 2010



Source: Internal data of S.C. Tipotex S.A.

Figure 2. Number of employees in the Telemarketing Department of the Transilvania Express daily publication, September 2008 - December 2009



Source: internal data of S.C. Tipotex S.A.

Figure 3. The structure on periods of time of subscriptions concluded through marketing to the Transilvania Expres daily publication, from September 2009 to December 2009

The weight of *Transilvania Expres* subscriptions concluded through telemarketing is 1-4% of the total number of subscriptions. To maintain an ascending trend and to ensure the profitability of the Telemarketing Department the following measures should be taken: increasing the number of agents, turning the telemarketing activity into a permanent activity, using telemarketing to make certain market researches over the phone and making offers on different products and services of Tipotex company. The technological development contributed in the last years to the enhancement of telemarketing campaigns of Tipotex company. The telemarketing was used to ensure a better informing of actual and potential customers regarding the services, to reduce the time required to sell advertising space and subscriptions, and to solve rapidly the complaints coming from newspaper readers and citizens of Brasov.

4. CONCLUSIONS

Two centuries ago, telemarketing was a simple way, both for large and small companies, to get high profits from sales. At that time the number of telemarketing professionals was rather low, and the low resistance of customers to this form of sales was not a problem. But today's customers are assailed on the phone with different offers, and their resistance has increased significantly. Nevertheless, telemarketing may largely enhance profits, but only if the organisation's management understands the fact that a telemarketing program means more than just renting a few telephone lines and hiring a small number of persons with a pleasant voice.

Most of the time, companies choose to outsource their telemarketing services to specialized companies. This is a sign an increasing penetration of global work force and the convergence of different cultures towards reaching the same business goal. The advantages of outsourcing to a professional telemarketing company are directly linked

to the benefits of outsourcing itself. Service outsourcing to a specialized company has the role to cover the distance from the company's product to consumer. Taking into account today's direct marketing tactics, some efficient, others too less used, the telemarketing represents in Romania a yet unexplored field which only a specialized company can control.

Truly professional companies, to which telemarketing activity is outsourced, should generate increased profits from sales for the employer. This is obviously a positive outcome. The outsourcing companies should be capable to attract new customers, to reach an increase in product sales and to improve the degree of retention of products by the customers. At the same time, an outsourcing company dealing with telemarketing should be also cost efficient. The ready-to-use outsourcing services are doing everything for the employer, including management of administration duties, recruitment, training and supervising of sales agents' activity.

Outsourcing companies, to which telemarketing activity is outsourced, are also in the possession of complete information on the target market. For a small company, it is possible for an internal direct sales department to be efficient. But, if global development is taken into consideration, before the product loses its selling potential, the management group should get together all the necessary resources in order to establish the infrastructure only for entering a regional market. This is a complex and very risky move. This is why is possible to employ the services of a telemarketing company that has already the necessary resources and infrastructure to sell a product/service required.

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ROMANIAN NEGOTIATION STYLE BASED ON ITS CULTURAL DIMENSIONS

ANDREA HAMBURG *

ABSTRACT: *As a result of intensified international business relations and a unified European space the cultural background of economic agents in the field of international business is getting an increasing importance and leaves to a certain extent its marks on business behaviour of these individuals. Thus from the sixties of the past century onwards the problem of cultural differences and their influence upon professional relations lie in the centre of attention of researchers like E.T. Hall, Geert Hofstede, his disciple, Fons Trompenaars, and last but not least Richard Gesteland. In business negotiations one can witness to a double conditioning of people's negotiation style, at one hand it is the result of individual characteristics like personality, education, experience, personal charisma, but on the other hand there is a strong impact of collective factors, too, such as the mental programming of each nation called culture. In the following study we try to outline the portrait of Romanian business people through their culturally conditioned negotiation style avoiding at the same time to fall in the trap of stereotypy.*

KEY WORDS: *cultural differences; cultural dimensions; mental programming; negotiation style; avoiding stereotypy*

JEL CLASSIFICATION: *F50, F51, M16*

As a result of intensified international business relations, frontier opening and a unified European space the cultural background of economic agents in the field of international business is getting an increasing importance and leaves to a certain extent its marks on business behaviour and commercial usage among these individuals. Thus from the sixties of the past century onwards the problem of cultural differences and their influence upon professional relations between the representatives of various nations lie in the centre of attention of many researchers. In this sense there are to be mentioned the American anthropologist E.T. Hall, the Dutch researchers Geert Hofstede and his disciple, Fons Trompenaars, and the American Richard Gesteland, all of them interested in the problem of cultural dimensions in human interaction in

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general and in that one of professional relations in particular. Tables 1-3 present a synthesis of research results in this field.

Table 1. Cultural Differences According to E.T. Hall

Edward T. Hall	Way of communication		Time perception		Proxemics (the role of space/distance)	
	High-context cultures	Low-context cultures	Monochronic cultures (sequence)	Polychronic cultures (synchronisation)	Contact cultures	Noncontact cultures
2 cultural dimensions * way of communication * time perception - proxemics (the role of space/distance)	<ul style="list-style-type: none"> - direct, explicit communication - message carried by words - negotiation by items of object tackled directly according to agenda - result oriented - logical presentation - concise language, quantity concern - individual prestige → personal shame if disobeying the rules <p>e. g.: Western/Northern Europe & North America</p>	<ul style="list-style-type: none"> - implicit message, speaking in metaphors - message depends on context - communication by items of politeness, euphemistic way of saying no - relationship oriented, importance of trust - complex language, quality concern - prestige based on group respect → collective shame of the entire group <p>e. g.: Japan, China, the Middle East, Latin America</p>	<ul style="list-style-type: none"> - tackling problems one by one - time: <ul style="list-style-type: none"> - objective entity flowing inexorably from past towards future - linear - rare resource → saving ↓ consequences: <ul style="list-style-type: none"> - strict planning, holding to fixed programme - operativity, punctuality Features of negotiators: <ul style="list-style-type: none"> - preference for operative beginning/finishing of meetings - fixed breaks - items on the agenda handled one by one - not tolerating unpunctuality <p>e. g.: Germanic and Anglo-Saxon countries</p>	<ul style="list-style-type: none"> - simultaneous problem solving, more items at once - time: <ul style="list-style-type: none"> - perceived subjectively according to events - flows on more planes in diff. rhythms - abundant, resource, subject to fostering relationship ↓ consequences: <ul style="list-style-type: none"> - more activities running in parallel according to urgency and the requirements of developing interpersonal relationship Features of negotiators: <ul style="list-style-type: none"> - preference for a flexible schedule - importance of intimate conviction - spontaneous breaks - simultaneous handling of a whole set of information - neglecting unpunctuality <p>e. g.: Asian cultures, the Arabic World Latin Europe/ America</p>	<ul style="list-style-type: none"> - small distance in interpersonal relationship <p>e. g.: Arabian countries, Latin Europe/ America</p>	<ul style="list-style-type: none"> - considerably greater distance in interpersonal relationship <p>e. g.: North America/Northern Europe</p>

And now the conclusions of Dutch researchers regarding cultural conditioning of people.

Table 2. Cultural Dimensions According to Geert Hofstede and Fons Trompenaars

Geert Hofstede	Power distance	
	Large power distance	Small power distance
5 cultural dimensions	<ul style="list-style-type: none"> - accepting social inequality, importance of belonging to a certain group - respecting authority, above all state institutions - paternalistic, even autocratic leading style - employees' preference for an authoritarian boss - power, status and wealth go together <p>highest PDI (power distance index) - e. g.: Malaysia (score of 104), Latin American countries (Guatemala, Panama, Venezuela, Mexico)</p>	<ul style="list-style-type: none"> - not accepting social inequality, gain of status and prestige through individual merits and not thanks to being part of a group - collaboration, consulting leading style - employees' preference for a democratic, consulting boss - separation between power, status and wealth (minister going to work by bus) <p>lowest PDI: Austria (score of 11)</p>
	Individual's place in society	
	Individualism	Collectivism
	<ul style="list-style-type: none"> - individual independence, actioning as an independent entity - individual's early leaving the group (family), weakening or even breaking relationship to group - individual thinking as "me", having personal opinion - employee's independence from organisation - employee's priorities: personal time, liberty in choosing his/her work (the one you can do ↔ the one giving you personal satisfaction) - "losing face" - personal shame meaning loss of self-esteem irrespective of others having observed the act or not - highest IDV (individualism index): Anglo-Saxon countries: USA (score of 91), Canada (score of 80) 	<ul style="list-style-type: none"> - practical and psychological dependence between individual and the group he/she is belonging to - individual being lifelong supported by the group, in exchange the former one owing loyalty to the group - individual thinking as "we", reflecting group-opinion - organisation is another subgroup individual is belonging to, the importance of what the organisation does for its employees: possibility for perfecting, gaining new qualifications, better work conditions, chance to use qualifications - collective shame for the acts of a member of the subgroup only if offence to prestige was observed by others - lowest IDV: Guatemala (score of 6), Columbia (score of 13)
	Middle score: Arabic countries, Japan, India Relation between PDI and IDV: countries with great power distance tending towards collectivism	
Individual's role by sexes		
	Masculinity	Feminity
	<ul style="list-style-type: none"> - male features: imposing, harshness, competence, competitiveness (outdoor actions) - importance of: high earnings, social recognition, promotion, challenge to competition - in masculine societies well defined roles by sexes 	<ul style="list-style-type: none"> - female features: tenderness, orientation towards relationship (care for household, people) - importance of: collaboration, good vertical and horizontal relationship, life-quality, stability of workplace - in feminine societies roles overlap - society based on modesty, solidarity

	<ul style="list-style-type: none"> - society based on ambition and competition → results at work rewarded according to equity and merit - “one lives to work” - masculine type manager: decided, harsh, “aggressive”, taking decision alone → conflicts solved in right struggle 	<ul style="list-style-type: none"> → rewards given on equality base, for each member according to needs - “one works to live” - a feminine type manager leads more intuitively, on consensus base → conflicts solved through negotiation, compromise
	<ul style="list-style-type: none"> - highest MAS (masculinity index) - e. g.: Japan (score of 95), Austria (score of 79) - index calculated for country and sexes too (values tending towards harshness, masculinity with both sexes) 	<ul style="list-style-type: none"> - lowest MAS - e.g.: Sweden (score of 5), Norway (score of 8), Holland (score of 14) - equal sensitivity values with both men and women
	Relation between religion and masculinity index: Roman Catholic religion predominates in masculine type countries and the feminine ones adopted mostly the Protestant religion	
	Tolerance for the unknown, unforeseen	
	High uncertainty avoiding level	Low uncertainty avoiding level
	<ul style="list-style-type: none"> - little tolerance for the unknown, uncertainty → many written rules (formal/informal ones) e. g.: in Germany there is a law for situations in which normal laws don't fit - Notstandsgesetze) - in these societies people seem to be troubled, preoccupied, stressed, active, aggressive - tendency towards an increased expressivity, showing emotions, finding an outlet for stress → smaller death-rates of cardiac and circulatory diseases - a need for fast traffic to avoid uncertainty prior to lifesaving → high speed limit and the paradoxical situation of exposing oneself to risk because of trying to avoid uncertainty - intolerance for changing workplace, concern for workplace stability 	<ul style="list-style-type: none"> - high tolerance for the unknown, uncertainty → few formal rules (e. g.: Great Britain has no written constitution), many attitudes based on social consensus (e. g.: queuing in the bus station in Great Britain) - people seem to be calm, quiet, indolent, lazy, controlled - tendency towards interiorisation, hiding, stifling emotions → much higher death-rates of cardiac and circulatory diseases - there is no need for urgency, traffic is slow → low speed limit - tolerance for frequent workplace changing
	- circular correlation between UAI (uncertainty avoiding index) and age: where employees are older the idea of changing workplace is less accepted → employees will be older	
	<ul style="list-style-type: none"> - higher level of intolerance, existence of fanaticism, of the conception that what's unknown is dangerous and that there is only one Truth possessed just by them - these cultures are good at innovation implementation needing punctuality and sense of detail (e. g.: Japan has introduced to the market more new products) - high UAI - e. g.: Latin American, Mediterranean countries: Greece (score of 112), Japan (score of 92) 	<ul style="list-style-type: none"> - belief in the existence of a single Truth but accepting other people seeking it as well in their own way - these countries stimulate innovation (Great Britain had more Nobel prize winners) - low UAI - e. g.: Great Britain (score of 35)
	Time horizon	
	Long term orientation	Short term orientation
	<ul style="list-style-type: none"> - features: perseverance, moderation, organising relationship according to status - e. g.: oriental cultures 	<ul style="list-style-type: none"> - importance of: personal safety and stability, saving “face”, preserving tradition - e. g.: occidental cultures

	- Christian and Muslim concern for Truth (absolute and only possessed by them) could be a competitive disadvantage in competition with oriental countries where people are looking for Virtue in more acceptable ways → synergy of more possible solutions (economic development of the 5 dragons in East and South-East Asia)	
Fons Trompenaars 7 cultural dimensions - applying to Hofstede's approach but in his own manner and including 10 postcommunist countries in Eastern Europe in the study, too	Universalism - possibility of applying ideas, practices under every circumstances without adapting - emphasis falls on formal rules to be respected in each situation e. g.: USA, Great Britain, Germany, Sweden, Australia	Particularism - need for adapting to the circumstances - importance of interpersonal relationship e. g.: Venezuela, former USSR countries, Indonesia, China
	Individualism	Communitarianism
	- although in his own approach comes to similar results as Hofstede e. g.: former Czechoslovakia	
	Equality - culture of „achieved status“, position gained according to performance, merit e. g.: Austria, USA, Switzerland, Great Britain	Hierarchy - culture of „ascribed status“, status based on belonging to a social group, sex, age category and on personal relationship e. g.: Venezuela, Indonesia, China
	Sequential - one activity at a time, strict plan e. g.: USA	Synchronic - more activities taking place simultaneously, plans subordinate to human relationship, changes made even in the last minute e. g.: Mexico
	Outer-directed - managers controlling environment e. g.: USA	Inner-directed - managers subordinate to environment e. g.: Asian countries
	Specific - analytical approach, studying phenomena by parts - clear separation between public area - open to everybody - and the private one with access only for intimates e. g.: Austria, Great Britain, Switzerland	Diffuse - integrating approach to phenomena - the 2 areas have similar measures, access to the public area means access to the private one as well e.g.: Venezuela, China, Spain
	Neutral - feelings not shown, stoicism e. g.: Japan, Great Britain	Emotional - showing feelings, face expressivity e. g.: Holland, Mexico, Switzerland

Establishing two golden rules of international business relations i. e. seller should adapt to the buyer and visitor respect local customs that implies knowledge about them, the American Richard Gesteland studied world's cultures based on business behaviour. Thus he set up four behaviour models presented in Table 3.

After this synthesis of the research results in the domain of cultural differences one may put the question how and to what extent the presented differences influence human interaction in general and the course of business negotiations in particular. As beside this set of collective factors belonging to the culture of descent one's negotiation style is also defined to a great extent by a set of individual factors, like: temperament, personality as the individual's socio-psychological determinant externalised through personal style, education, professionalism and experience gained

during the years, one can neither exaggerate the effect of cultural determination without falling into the trap of stereotypy, nor neglect the above presented points.

Table 3. Business Behaviour Models According to Richard Gesteland

Richard Gesteland	Deal-focus (DF)	Relationship-focus (RF)
4 behaviour models in business relations based on cultural differences	<ul style="list-style-type: none"> - concern for task solving, transaction - considered aggressive, too direct, invading - minority cultures <p>e. g.: North America, Great Britain, Australia, New Zealand, South Africa, Northern and Germanic countries</p>	<ul style="list-style-type: none"> - concern for relationship making and developing - considered vague, too slow, misterious - preference for dealing with family, friends, acquaintances, perplexed in relationship with strangers, especially when foreigners - most cultures focus on relationship <p>e. g.: the Arab World, Latin America, most Asian and African countries</p>
	<p>moderate deal-focus: Latin countries in Europe, Eastern Europe, Mediterranean countries, Hong Kong, Singapore</p>	
	<p>Consequences upon transactions:</p>	
	<ul style="list-style-type: none"> - seller can contact buyer directly even if unknown to him/her; operativity, result achieving - directly to the details, the deal, relatively short negociation process - background information obtainable in relatively short time - deal made with a company - direct, clear communication even through modern communication tools - losing temper by DF negociator means in the eyes of RF partner losing face and making even the latter one lose face in front of the group - written contract: letter of law, consulted each time necessary - there exists a draft of contract discussed at the negociation table, lawyer's presence 	<ul style="list-style-type: none"> - contact making is possible only through an intermediary with prestige, importance of acquaintance making and developing trust → long negociation process - deal made rather with the contact person than with the company he/she represents (in completing the deal this person should be present even if working by then in another department) - subtle, vague communication, importance of face-to-face meetings, preserving harmony and cultivating relationship → feelings not shown, refuse not expressed directly - claim to renegotiate a recent contract when conditions change - lawyer's presence rejected at the negociation table
	<p>Informal cultures</p> <ul style="list-style-type: none"> - egalitarian structure, flat hierarchy - through overfamiliar behaviour injuring sentiments of respect to hierarchy of the representatives of formal cultures <p>e. g.: very informal cultures: USA, Australia, moderately informal cultures: New Zealand, Canada, Norway, Denmark</p>	<p>Formal cultures</p> <ul style="list-style-type: none"> - hierarchy, authority, status - could be felt rigid, distant, arrogant - importance of age, sex, titles, of social status, state authorities, respect towards the buyer <p>e. g.: most of Europe, the Mediterranean area, Latin America, most of Asia, Arabian countries</p>
See also Hall's approach: monochronic ↔ polychronic cultures	<p>Rigid-time cultures</p> <ul style="list-style-type: none"> - importance of punctuality, of working agenda respected point by point, of deadlines <p>e. g.: Northern and Germanic countries, North America, Japan</p>	<p>Fluid-time cultures</p> <ul style="list-style-type: none"> - deadlines, data taken not so strictly, at meetings more problems discussed simultaneously - frequent lack of a working agenda, its items handled in an accidental sequence, despite of this problems are solved →

		creative solutions - dealing with such cultures deadlines should be fixed with a comfortable margin of 1-2 months and in the meantime kept close relationship e. g.: Arabian countries, Latin America, South and South-East Asia
	moderately monochronic cultures - e. g.: Australia, New Zealand, Eastern and Southern Europe, Singapore, Hong Kong, Taiwan, China, South Coreea ! orientation to time may vary even within one culture according to geographical areas going from North to South ! during the 30 years past from Hall's classifications Japan and Singapore have changed into cultures putting great or moderate emphasis on punctuality and agendas	
Nonverbal behaviour	Expressive cultures - use communication tools of great impact (para- and nonverbal communication) - individuals speak loudly, often interrupting their partners → overlaps in communication - small distance between people - contact culture intense facial expression, hand and arm movements - direct, intense ocular contact, importance of it e. g.: Latin countries in Europe and America, Mediterranean countries	Reserved cultures - sober talking without exaggerated gestures - individuals speak one by one, often breaks in the conversation - large distance between people, respecting private area - noncontact culture - moderate kinetics - direct ocular contact avoided - sign of provoking e. g.: South and South-East Asia, Germanic and Northern countries
	Communication	
	verbal (by words) breaks)	nonverbal (body language)
	paraverbal (voice intensity, meaning of silence)	
	Sources for possible conflicts in nonverbal communication: Proxemics (interpersonal distance) Haptics (touching) Oculesics (ocular contact) Kinetics (gestures, movements) ! different meanings of gestures, movements: e. g.: lifting eyebrows - for Americans: interest - for Germans: they consider you clever - for Arabians: negative answer	
		- for Britons: scepticism - for Chinese: disapproval

Thus business negotiations arise the problem whether such different people both as individuals and as representatives of a collective can ever get to a consens and what consequences this will have. On whose side will be the balance? At this point we can assert with great certitude that the better, more professional and skilful negociator has to win more from negotiating rounds and these features imply beside other aspects the profound knowledge of cultural features, too differences between societies are based on. The person knowing his/her partner even from his/her cultural background will not only be able to foresee the latter's reactions understanding their ground, but thus will also avoid capital mistakes responsible for the failure of promising deals. Even more, extending Johann Wolfgang von Goethe's reflections upon lingvistic competences – "who doesn't know foreign languages, doesn't know anything about his/her mother tongue either" – unto the cultural and intercultural field, we could say, persons not knowing other cultures, don't know their own one either.

In the following passages we'll try to define Romanian negotiation style finding out its characteristics based on its cultural dimensions. Of course taking mental programming through the culture of descent as an absolute truth is no practicable plan in the case of Romanian business sphere either, the more so since we can detect a quite clear separation between public and private domain, the latter one coming more abreast of European and occidental norms. What should this mean? Cultural predisposition, the stereotype features we feel tempted to characterise Romanian people through leave their marks more upon state institutions, authorities and public field in general than upon economic agents whose activity is guided by the rules of market economy. In a private company there is less probable for nepotism and clan spirit to dominate over competences and economic, financial interests. Of course this phenomenon isn't completely unknown there as well but as in the long run it affects negatively the company's evolution putting to risk even its survival, in the 20 years past from the fall of communism people keep trying to tighten up on it.

Thus according to Hofstede's cultural dimensions a Romanian negociator will be characterised through moderate individualism, he/she will be tempted to value business partners according to competences and not on the base of social belonging. But because of the importance ascribed to relations this business area will show aspects of collectivism as well as there exist some religious, ethnic subgroups where deals are made preferably intragroup putting barriers to non-members. One should mind also that a "Romanian" negociator could possibly be only Romanian citizen but belonging to another ethnic group resulting thus probably a double cultural conditioning, by the country's culture at one hand and the culture of the ethnic group of descent at the other. In this way one may find different levels of individualism among Romanian business people not only through a personal, but also a cultural determination, this phenomenon being valid for all dimensions and features handled in the following passages.

Concerning power distance Romania shows an evolving tendency from the acceptance of social inequality, of differentiating between „some“ and „others“ „more equal“ than the former ones, of power concentration in the hands of the attendants of the Communist Party and of oppression of masses during the communist regime - a perverted form of collectivism - unto the somehow failed attempt of rejecting it in the period after 1989. What underlines this assertion is the present state of political class, entrusting leadership in some sectors and institutions to persons not on the base of competence and performance but according to party affiliation, respectively the acceptance of paying these individuals in hard times bringing restraints for average people considerable sums of public money. Under such circumstances it is a must that position be completed by status and wealth obtained in different ways, honest or less honest ones. Financial state will be shown with predilection people giving up external signs of it neither in the political nor in the economic sector. Thus cars, trade mark of clothes, watch and cell phone type belong to one's definition. Making a fetish of wealth results with Romanian people the wish of fast enrichment, so Romanian negociators when making a price offer will tend to exaggerate at the expense of a fair price and when buying will try to negotiate even a favourable price.

In a country where power distance has remained unaltered in the eyes of authorities, state institutions, where the representatives of these domains keep on

considering themselves citizens' chiefs and not their servants, business people have formed their own set of solutions keeping on resorting to the old system of "little presents". Being used to corruption and bribing they will be tempted to seek for the back door and less "catholic" solutions, a behaviour almost unknown among German business people for instance in whose mental programming honesty and respecting the rules play a basic role. In comparison with the German strictness a Romanian negotiator won't shrink back from greasing somebody's palm when necessary and won't lay such an emphasis on honesty and principles. As bribery isn't strange to Romanian business world business presents don't represent a delicate topic either. They are often offered without any hidden intention as part of traditional Romanian hospitality or led by the wish of making our country and its characteristics known among foreigners. Although in Romania women are occupying even more and more high position jobs claiming a high level of education and society seems to accept their emancipation, taking into consideration the values both men and women adopt Romanian culture is still a masculine one. These values are: realisation, earnings, competition, promotion. A relatively high number of young mothers with high level of education and the corresponding wages choose to go back to job before time - despite of the legal paid leave of 2 years - motivated exactly by these masculine values.

Concerning female emancipation and equality of sexes in all domains there is following to be said: Romanian business people generally don't bother negotiating and making a deal with a woman, but the latter one should prove her competence and skills much more than the representative of the other sex would be expected to do, that means a female entrepreneur will have to work hard in order to be accepted as equal partner. But the professionalism she should show doesn't mean she should give up her female features but concerning clothes she is expected to adopt a conservative style, as well. Because of Romanian women and especially business women adopting masculine values one can point out a masculine feature even of presents in professional relations. One can offer a Romanian business women flowers, but instead of chocolate a little present related to professional life such as an agenda, organizer and so on fits better.

During negotiations Romanians will prefer an established programme, an agenda as guideline for the discussions even if they don't stick to them very strictly. Topics will be handled rather item by item than globally but respecting the time frame of discussions won't be absolutely important. As data collection, cultivating relationship, talks need long time, - especially when realisation of the plan depends on state authorities, too which through their bureaucratic process can considerably slow down the progress of things - negotiations in our country will be slow and decision taking process while passing many hierarchic levels quite the same. Romanians are usually miser giving information supplementary to the presented ones, when they still drop this reticence, they do it for developing mutual trust. Before the economic crisis both the business and civil sphere showed a quite high disposition of taking credits even on a rather irrational base, - the Romanian state keeps being open to the idea of credit for consume even in present days. I rely on these aspects when I say Romanian society shows a medium level of uncertainty avoidance.

However it lays a quite great emphasis on interpersonal relationship giving thus proof of a medium term orientation, a Romanian negotiator will be essentially

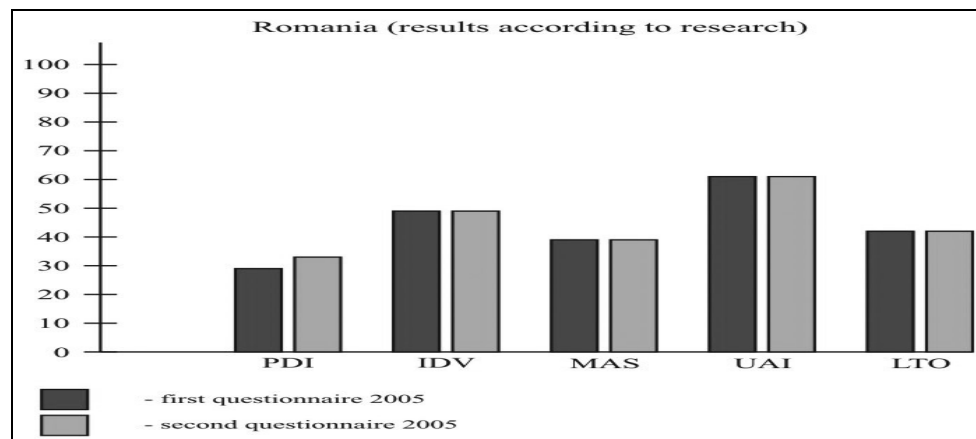
interested in task realisation, i. e. the deal (deal-focus - see Gesteland's models of business behaviour). Contracts in turn will be very long with detailed conditions and terms and according to Romanians' predilection to assume obligations rather at a declarative level they could suffer major changes until the final signature. Although, as already mentioned, in some business circles externals have rather restricted access, in Romanian business world usually is no need of an intermediary for initiating business contacts to another economic agent but a good word, a recommendation can always serve right. Even if sellers can have direct contact to the buyer, telemarketing, although trying to gain ground, has no great success in our country because of population's repulse of such an aggressive marketing penetrating their private lives.

Romanian society shows moderate formalism conveying importance to age, social belonging and titles, however concerning the latter one we can't make any certain affirmation. It is in fact a vicious circle: titles and diplomas being considered important, most people long for them resulting a real chase of diplomas. On the other hand as there are already existing many possessors of such titles, they've lost some of their value and power to confer prestige. Good manners and politeness are also welcome among business people in our country however playing no absolute role in their relations. Considering bribery and the system of looking for back doors in problem solving, communication is not very direct in Romanian business world, despite of it messages still preserve to a great extent their communicative value. Expressing disapproval happens without resorting to euphemism but asking for a favour usually assumes veiled forms. A Romanian negociator will make a moderate use of para- and nonverbal communication tools, his gestures, body and facial movements, voice variations being more intense than for instance in reserved cultures. Visual contact will be sought to the partner, if contrary, his/her intentions are not honest, he/she has something to hide. At the same time Romanian business people will keep moderate distance in their professional relations without invading the counterpart's private space. Men used to shake hands but huggings, taking somebody by the arm are no practice in our country - as well as there is no handshaking among women or between women and men - thus we can assert Romanian culture is a "noncontact" one.

Although being a monochronic culture (see Hall) or sequential one according to Trompenaars, i. e. tasks are solved one by one and time is considered rather a rare resource than an abundant one, Romanians will still have a quite flexible time perception. As a moderately rigid-time culture Romanian business sphere will accept being maximum 10-15 minutes late - motivation and apology required - however punctuality will be preferred. Meetings will have certain time frames concerning beginning, duration and end but possible little delays won't be considered a tragedy. Fixed breaks can give ground to spontaneous interruptions if necessary, for instance before making final decision in order to summarise data and consult colleagues or when reaching deadlock. Considering Trompenaars' cultural dimensions Romanians' predilection for particular solutions based on interpersonal relationship or social belonging could be the result of particularism characterising Romanian culture. As in Romanian society persons are not always strictly ranked according to performances and merits, it can be classified rather an „ascribed position“ culture however economic

and business sphere try to counterbalance this aspect. Analysing phenomena by parts, separating public space designated for instance for negotiations from the private one reserved only to intimates, classify Romanian culture in the Dutch researcher's typology as specific culture. According to their adopting masculine values Romanian managers tend to believe that environment is subordinate to their activities and plans, they give too little importance to nature's protection in the sense of sustainable development, showing thus an outer-directed behaviour.

In Romanian business sphere there's no taboo to show sentiments within the confines of rationality and decency. For the expression of joy, interest, approval or disapproval, indignation and so on business people have at their disposal beside the usual verbal tools also the para- and nonverbal ones, like voice intensity, silence, facial expression, arm and head movements, body language in one word. Of course nervous outbreaks, losing temper are not accepted in moderately affective cultures as the Romanian one either. Concerning verbal communication and foreign language usage Romanians present both good quantitative and qualitative values derived from necessity and interest. The rules of international transactions postulated by Gesteland and already presented in this paper are often subordinate to these two constraining factors. Completing these descriptive passages now should follow some quantitative values, however in some places slightly contradictory to them, to underline the above presented facts. Following figure should function as a visual and quantitative representation of Romanian people's cultural dimensions after Hofstede's method. The questionnaire was applied in Romania in 2005 by Interact company in partnership with Gallup Institute to a sample of 1076 persons. The results of this research - at some points very different from Hofstede's estimations made for our country¹ - are presented in Figure 1.



I. questionnaire: PDI (29); IDV (49); MAS (39); UAI (61); LTO (42)

II. questionnaire: PDI (33); IDV (49); MAS (39); UAI (61); LTO (42)

Figure 1. Results for Romania in the Research Made by Interact Company and Gallup Institute

¹ PDI (power distance index) 90, IDV (individualism) 30, MAS (masculinity) 42 and UAI (uncertainty avoiding index) 90.

As shown in the following figure the values obtained for the dimensions power distance and uncertainty avoiding are very different from that ones foreseen by the Dutch researcher and partially from reality as well. The explanation given by the authors of the study in Romania lies in the contradiction existing between real state of things and the projection of an ideal situation many people are longing for. According to the opinion of Interact/Gallup staff real values would correspond to a great extent to those estimated by Hofstede.

Despite of the results obtained in the study and of Hofstede's presumptions I still maintain my statement based on the Roman descent (virility, the image of a macho) and traditional structure of Romanian society, especially in the rural areas, on one hand and on people trying to come abreast of new performance challenges and their orientation towards competition on the other that Romanian people adopt rather masculine than feminine values. As a result of research work undertaken in present paper we can conclude that in the era of globalisation and of even harsher competition on the international market intercultural competence becomes an essential ingredient of succes in international economic transactions, thus studying cultural differences in the world should complete every business people's professional training.

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NECESSITY AND REALITY BETWEEN INFORMATION TRANSPARENCY IN PERFORMANCE SMEs TO TRACK

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ABSTRACT: *Although organizational performance is one of the most useful outcome variables are used today and its many measures, there is a lack of consensus on ways to measure performance of SMEs. As a business specializes in measurement, evaluation, knowledge management and control of assets, liabilities and equity, and the results obtained, the accounts must provide chronological and systematic recording, processing, publication and preservation of information on financial position, financial performance and cash flows, both for their domestic needs and in dealing with present and potential investors, financial and trade creditors, customers, public institutions and other users. A modern accounting system, but one which is open to investors and accounting can be applied outside the application of IFRS subject of this article.*

KEY WORDS: *SME; IFRS; information; transparency; relevance; convergence performance*

JEL CLASSIFICATION: *J24, M12, M48, M54*

1. INTRODUCTION

The world is changing, now faster than ever, life is becoming more vibrating, become increasingly demanding, we have sophisticated ... are becoming more informed. This dizzying vortex entails everything. Company, as an organization becomes a dimension of increasingly clever at all its levels, ensuring survival in conditions of fierce competition. The market is very demanding in many fields. Technological impact was so profound in recent decades that, beyond the organization of business enterprises, the working environment, by way of ongoing relationships

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between firms, have changed the way people perceive and value wealth. The success and survival of a firm market, the essential element tends to be not productive apparatus or land, even money, but information, seen as the main resource. Switching from one material to an economy based on information and knowledge has marked a new era in human history. Everyone talks of the information society and, more recently, knowledge-based society.

Business intelligence refers to an organization's ability to understand the functioning and the way its activities fit into a value chain, to anticipate future developments and to adapt them. Enterprise can not control these processes unless flexible, primarily in terms of information. Information can be gathered without ceasing, but is par excellence a perishable nature.

The literature makes much of the Club of Rome's motto "Think globally, act locally." Globalization, said I. Bari (2001), represents a new and necessary "progress of the limits" between which produces and reproduces the humanity. She brings changes similar to those that emerged after the discovery of America five centuries ago: the world becomes smaller and expands trade. The current features of globalization concerns the internationalization of production, the new international division of labour, the new competitive environment that generates these processes, and internationalization of the state, making the member agencies of the globalized world.

Small and medium businesses, along with science and technology can be a decisive factor in transforming the national economy. SMEs not only a new social pattern. They have already won a well-defined position, especially given the possibilities of adaptation, the large number of jobs provided, the flexibility in technology and management, and ability in working with industrial giants.

Commercial success of the undertaking depends, however, problems related to accounting, marketing, finance, production and exploitation, human resources management, operation and implementation of information technology sub-components.

For today's globalized market actors (large listed companies, investors, financial analysts, regulators, etc.), In view of I. and M. Ionascu (2008), accounting information has become a public good and its production must be ensured a standardized basis to allow comparability and decision making. On such a background was *accounting governance* model outlined in recent years, influenced mostly by the need for a single account represented referential quality accounting standards issued by the IASB to allow good communication between operators on the financial markets IFIs.

But the following question arises: *for what percent of the businesses were developed standards IAS / IFRS?* The answer is clear, for less than 1%, if we consider the structure of enterprises in our country. But for these things are not clear enough.

2. WHAT IS NEW IFRS SMEs

Different countries have the same requirements regarding IFRS implementation. Thus, the European Union, they must necessarily apply to the consolidated financial statements of listed companies. But there are exceptions. Thus,

some EU countries (Austria, France, Ireland, United Kingdom, Slovenia) have allowed the use of IFRS in the unlisted companies, others (Cyprus, Malta and Slovakia) have unlisted companies to submit required financial statements in accordance with IFRS. Moreover, in some countries (China, Russian Federation and Romania), only certain entities are allowed to use IFRS. Moreover, some countries (Argentina, Brazil, United States, India, and Japan) do not authorize the use of IFRS for companies listed without a book recommendation.

However, the IASB has developed and published in February 2007 IFRS for SMEs standard has sparked a wave of controversy.

States that the IASB SME project developed retaining the basic notions of the conceptual framework and the corresponding principles, which sought to adapt to the needs of users and to pay attention to cost-benefits. But the question arises: *Are there differences between full IFRS and IFRS for SMEs? If so, what the differences? If not, why were necessary other IFRSs?* In an article of author L. Feleaga and N. Feleaga (2008) is the following statement: "The answer is obviously negative. It is true that the number of pages was reduced to less than 10% but who knows full IFRS will have difficulty to understand the project, reducing the number of pages is given in particular the elimination of examples, simplifications remain limited in the assessment and accountability".

The draft IFRS for SMEs, says M.M.Nita (2010) could meet the requirement of international developed and emerging economies to have a rigorous and common set of accounting standards to the small and medium enterprises, which are more simplified than the full set of IFRSs issued by the International Accounting Standards Committee (IASB).

Therefore, *the IFRS for SMEs is a set of standards developed to meet the needs and capabilities of medium-sized and small businesses.* They are drawn from International Financial Reporting Standards, but many of the principles of recognition and valuation of assets, liabilities, revenues and expenses have been simplified matters not relevant to SMEs have been removed and certain disclosures are been significantly reduced. SMEs represent, beyond local resources exploitation, structures that best protects the national character, culture, economic and social behaviour.

Financial information needs of SMEs are significantly different from those of large companies and causes are multiple. Consequently, constraints and requirements on financial reporting is provided by large companies to be more natural than those of SMEs. Information requirements should be assessed in terms of cost-benefit ratio.

In Romania there is currently a simplified financial reporting system for SMEs, all entities, regardless of size, applying the rules stipulated in the Order 3055/2009.

According to M. Toma (2010), a problem that caused confusion especially in new democracies in Eastern Europe is the relationship between standards and regulations. We deliberately or non-deliberate, equate the two. While the standards are generally regarded as recommendations, not mandatory, and are issued by governmental bodies, the rules are binding and are issued by government institutions.

Appear, therefore, two problems: on the one hand, implementation of international standards in a national system of government regulation, on the other hand, the nature of international standards. As stressed M. Toma, there is a clear

pattern of import of IFRSs, some countries are struggling for the adoption of IFRS as such, others to adapt to indoor national financial reporting standards and other standards in developing based on national principles of IFRS. We still we have not decided which way we go, here's yet another reason why beat up on the spot.

In our opinion, the Romanian accounting model is a hybrid in relation to current accounting rules (which is a combination of international and European standards and accounting practice IAS / IFRS fair image corresponding model adopted by the IASB), Romania does not fit neatly with the custom view that is based on recognized practices and the financing of capital markets. Model but not for foreign investors rather meet the requirements of the tax authorities on taxes or business within the context of assessing the state of macroeconomic policy.

Therefore, an unresolved issue at European level is a possible relationship accounting - taxation. There are two different approaches. There are two issues that have impact on the market: firstly, it's cost (cost of making two lines of financial reports). Secondly, it's credibility. Who reads the second referential balance of an enterprise and found different results, do not ask "who are the real results?" Different sets of financial reports are a huge impediment to accelerate the introduction of standards. There are a total split between reporting general purpose and special purpose reporting, the tax bases and prudent supervision.

Often, says M. Toma (2010), special purpose requirements conflict with the general purpose. It still wants the standards to be converted into legislation what is total confusion, even the background in terms of understanding problems. This explains why there are many differences between IFRS and Romanian regulations.

The main differences between IFRS for SMEs and Romanian regulations resulting from the comparative situation in Table No. 1, indicating that a debate is carried off by M. Toma in "Comparative study between accounting regulations in Romania (Order nr.3055/2009) and International Financial Reporting Standard for Small and Medium.

Beyond convergence process that seems irreversible, there are objective reasons justifying the interest of Romanian SMEs to IFRS. As judge and P. Pacter (2006) may be mentioned at least the following reasons:

- Desire to share the financial market: SME development requires obtaining some significant financial resources;
- Intention to sell in the future enterprise a foreign company, an international activist investment fund or a listed company: if the potential buyer is a foreign listed company or a subsidiary, it would comply with IFRS financial statements to make a bid according to current and future profitability, measured on the basis of information obtained by applying the same rules as those used to prepare their financial statements;
- Trying to meet donor demands: presentation of financial statements in an IFRS referential adapted SMEs would facilitate communication, would establish a trust for investors who have already begun to familiarize themselves with IFRS for listed companies and thus allows greater access Easy to additional funding;

- Ensure comparability in relation to competing companies: many EU countries have decided to implement possible or mandatory IFRS for consolidated accounts of unlisted companies;
- Reduction costs: IFRS for SMEs proposes a complete referential, which covers all aspects that might meet an enterprise, provided that certain issues (revenue recognition, upgrading, financial instruments) are little or no treaties Romanian regulations. For a group which has subsidiaries in several countries the financial reporting process is currently complex and expensive. Each branch must produce to local needs and situations group needs rules and regulations often differ. Applying IFRS for SMEs both for individual accounts and consolidated accounts should allow for simplified manufacturing process accounting, which would reduce costs and time of preparation of financial statements.

Table 1. Comparison between IFRS for SMEs Romanian regulations

IFRS for SMEs	Romanian regulations (Order no. 3055/2009)
1. Provisions relating to concepts and general principles	
The objective of financial statements of a small or medium is given to provide information on financial position, performance and cash flows of that business, which is useful for making economic decisions by a wide range of users who are unable to request reports specific information tailored to their needs	Not include a provision relating to the objective of financial statements
Accrual accounting and business continuity are presented in separate sections	Accrual accounting and business continuity are presented in Section accounting principles
Opportunity to present financial position or in a single statement of comprehensive income or in two statements (an income and expenditure statement and not the situation of comprehensive income)	Presentation of financial position is achieved through profit or loss
2. The provisions relating to recognition elements in the financial statements:	
Prohibition on formation expenses capitalized	Formation expenses may be included in "Assets"
Accounting for development costs or cost method or by the capitalization	Not presented detailed terms of capitalization. Show only the general conditions for recognition of an intangible asset and give examples of development activities
Deferred tax assets should be recognized	Deferred tax assets not recognized
Negative goodwill is recognized immediately in income	Negative goodwill is recognized as income to the extent that future losses and expenses are recognized
Borrowing costs are recognized as expenses in the profit and loss incurred during the period	Borrowing costs may be capitalized

3.Options on assessment:	
Further assessment is made tangible at cost less any accumulated depreciation and any accumulated impairment losses	Further assessment of the value of the intangible assets less accumulated value adjustments
Further assessment of property investments by the fair value model or cost model	Investment properties are not recognized as a separate category, but are treated as tangible.
Valuation of assets for disposal to the minimum un-current of carrying amount and fair value minus sales costs	Un-current assets for disposal are not recognized as a separate category, but are treated as property.
Allowed the usage method is the most recent purchase price for stock assessment	No reference is made to that effect
Trade discounts, rebates and other similar items are deducted from the purchase cost	Financial cuts are not deducted from the acquisition cost is recorded as revenue and trade discounts received by subsequent bills to be expensed
Stock assessment by CPM or output FIFO (prohibition of LIFO)	Stock Performance out by CMP, FIFO or LIFO
4.Estimări accounting:	
Finite or indefinite life to intangible assets	All intangible assets are considered to have finite life.
Periodic review useful life and residual value	Depreciation is calculated using an amortization from the date of their operation until the full recovery of their value
5.Conditions more restrictive exit of assets and liabilities balance sheet:	
Exit financial assets according to specific criteria, other than on legal transfer (transfer of risks and benefits, risks and rewards transfer, transferring control, etc.)	There is no indication in this regard
Maintaining the balance of assets transferred to the vendor involvement	There is no indication in this regard
6. Voluntary changes in accounting policies accounted for retrospectively	Is recorded on the retained earnings account
7. Goodwill is assessed after initial recognition at cost less accumulated loss of value	Goodwill is generally amortized within a period not exceeding five years, with possibility of exceeding the threshold
8. The consolidation:	
A subsidiary is excluded from the consolidation that operates in a jurisdiction which imposes severe restrictions on the transfer of assets outside the jurisdiction	An entity may not be included in the consolidated financial statements if severe restrictions prevent long-term maternal exercise its rights on the entity's assets
Not provided exemptions from preparing consolidated financial statements if the entity to be consolidated do not together exceed certain thresholds	Provided exemptions from preparing consolidated financial statements if the entity to be consolidated do not together exceed certain thresholds
No exclusions are provided in the consolidation of entities considered insignificant in terms of image group	An entity may be excluded from the consolidation if its inclusion is not material to provide an image true to the group
9. Methods of consolidation:	

To account for interests in joint ventures can use one of the following methods: cost model, the equity method, proportional integration method and the resulting fair value model	Joint ventures are consolidated through the proportional integration method
To account for interests in associated companies can use one of the following methods: cost model, the equity method and the resulting fair value model	Associated company is consolidated by the equity method
10. The transition to IFRS for SMEs	
Adjustments resulting from the first IFRS for SMEs are recognized directly in retained earnings (or, if appropriate, another element of their capital) on transition to IFRS for SMEs	There is no indication in this regard

3. CONCLUSIONS

The idea of developing separate accounting rules for small businesses is undoubtedly beneficial. But as we saw, accounting standardization bodies (national and international) have different views on the scope and content of these rules. Studies during the transition to the Order CECCAR 1752/2005 and 3055/2009 Gazette more new shows that this single regulatory accounting is perceived as too complex by SMEs, especially the micro, while some large enterprises deemed insufficient.

In addition, financial reporting involves significant administrative costs. In addition, tax reporting entities are seeking substantial administrative costs. Small and medium entrepreneurs to cope with very dense network of tax rules that aim to collect information necessary to obtain tax returns. To reduce these costs, many times, especially in SMEs, it is found that the practice of selecting accounting policies do not conflict with possible tax provisions, the effect being polluted by the interest of obtaining tax information and are not relevant to creditors Banking, capital owners, business partners, etc.

A quality financial reporting costs and any entity is not willing or can afford to pay its price. These difficulties are compounded by those induced by certain accounting policies stipulated by regulations. Order 3055/2009 imposes a reporting model based on the provisions of European Directives and improved through the acquisition of increasingly substantial referential policies of IFRS. This model has some limits maintained even directives, which provides general principles and formats of financial statements.

Studies by the European Commission point to significant differences in the way of adoption of these Directives into national law of Member States national accounting. The main quality of financial statements is to provide useful information to users. Order 3055 states that this goal is achieved if the compliance with its provisions. However, the Order contains a number of accounting treatments that kill the target.

European Commission's current challenge is to revise and supplement the European Directives with detailed rules in order to reduce the risk of different collection of concepts, principles and accounting policies set out therein. In conclusion,

provide a simplified financial reporting model, adapted to the needs of SMEs (especially those who do not have public accountability).

A particular case, but no less important, is that SMEs with international vocation. In Romania there are a large number of small and medium businesses to foreign investment as are Romanian and other EU countries. In such situations, international comparability, transparency and relevance of financial reporting are essential. Community foreign investors in Romania has expressed on numerous occasions about the lack of relevance of financial reports obtained under local accounting rules and the need to move to reporting based on international accounting standards. For these types of entities, the solution will be adopted as such or adoption by the convergence of IFRS for SMEs.

In my view, to ensure full convergence should occur in the following areas:

- the separation of tax accounting rules, regulatory level and in practice;
- customizing with international / European Romanian economic and financial realities;
- simplifying accounting rules applicable to small and medium enterprises, even if they remain parts of a single accounting system.

Attitude of our country on small and medium firms accounting is closely linked to the European Union. EU aims for the future for SMEs, simplify control and accounting rules contained in European directives.

But it is conceivable that, once published, international financial reporting standard for SMEs developed by the IASB, sooner or later be accepted.

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TQM AND BUSINESS EXCELLENCE

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EDUARD EDELHAUSER, SABINA IRIMIE***

ABSTRACT: *Our paper discuss the „hot” topic of Business Excellence (BE) aiming to highlight and clarify the connections with Total Quality Management (TQM). Thus, we describe the quality movement from inspection to statistical quality control and the „Japanese Age” of quality followed then by Total Quality Control (TQC) and TQM developments that drived to the models of BE. After that, we present some perspectives of defining the excellence at national and international level and an overview of BE models with focus on the referential ones. Finally, we attempt to sketch the coordinates of the "journey" through TQM towards excellence in Romania.*

KEY WORDS: *Quality, Excellence; Total Quality Management; Business Excellence*

JEL CLASSIFICATION: *M10*

1. INTRODUCTION

Motto: Excellence is a journey and not a destination.

In today's global competition and economic liberalization, quality has become one of the important factors for achieving competitive advantage. Quality management has represented a rebirth in organization management with an emphasis on excellence. The market offers different alternatives for quality management implementation, such as the ISO standards, the European Foundation for Quality Management (EFQM) model, the Malcolm Baldrige model or the Six Sigma methodology. The difficulty in implementation of each initiative varies from case to case. The quality movement has gone through many transformations. In the past, controlling quality meant that the product had to be inspected after it was produced to check whether it met all the specifications or not. The transformation from inspection mode to prevention mode is

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considered to be a very important step in building quality from the very beginning of the manufacturing process. The quality movement focused on building quality in every task that is performed in an organization. Therefore, it was seen a dramatic shift in the quality management focus from a concentration just on manufacturing, to a wide company spectrum of activities and, more specifically, to the needs of the internal and external customers. The Figure 1 shows briefly the history of Total Quality Management (TQM), from inspection to Business Excellence.

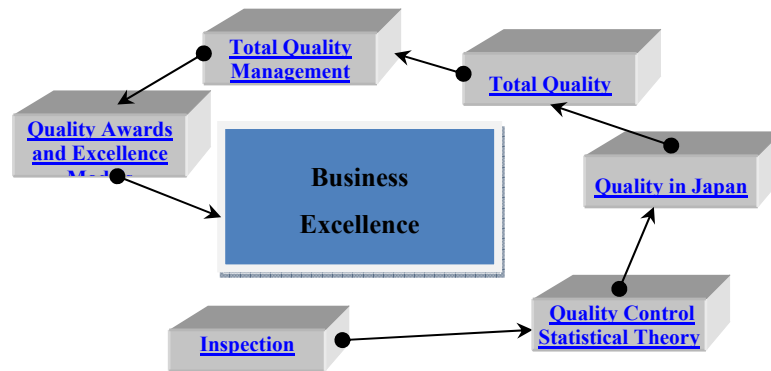


Figure 1. TQM from inspection to Business Excellence

2. DEFINING “EXCELLENCE”

Even if we fail to highlight all facets of the complex concept of excellence, we propose to present some definitions, approaches and representations that have contributed to the "enrichment" of the concept of excellence and to the “shaping” of the concept of Business Excellence. The starting point in achieving excellence is to improve quality. The natural sequence of steps to reach excellence is suggestive highlighted in Deming's chain (Figure 2).

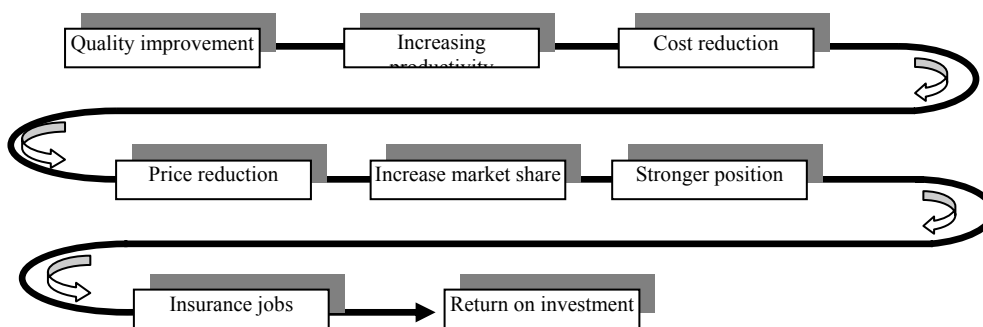


Figure 2. Deming's chain

Excellence is the state or quality of excelling. Particularly in the field of business and organizations, excellence is considered to be an important value, and a goal to be pursued. In Landier's opinion, excellence represents the essence of a

great managerial thinking, the “absolute”, a mythical ideal (Landier, 1991). Antonescu defines excellence in the following terms: “the ability of firms to make profits, while meeting the customers’ requirements” (Antonescu & Constantinescu, 1993, p.21). He also proposes a triangular representation in the so called “triangle of excellence” (Figure 3).

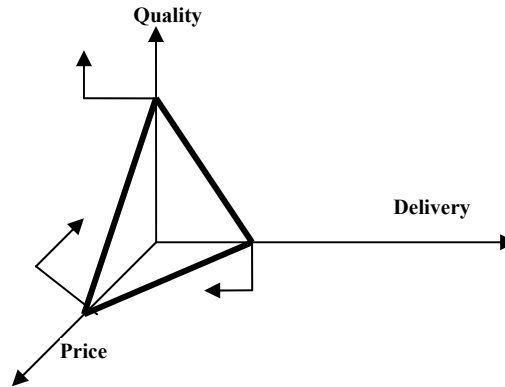


Figure 3. Triangle of excellence

The evaluation of excellence is done in the space delimited by the three axes. The arrows indicate the path of improvement measures to achieve excellence. Therefore, excellence means success in the competition by obtaining high quality products and services, offered to customers in shortest time, in terms of efficiency (Olaru, 1995). Another representation of excellence take account of other three coordinates: business, engineering/technology, and organization (Figure 4).

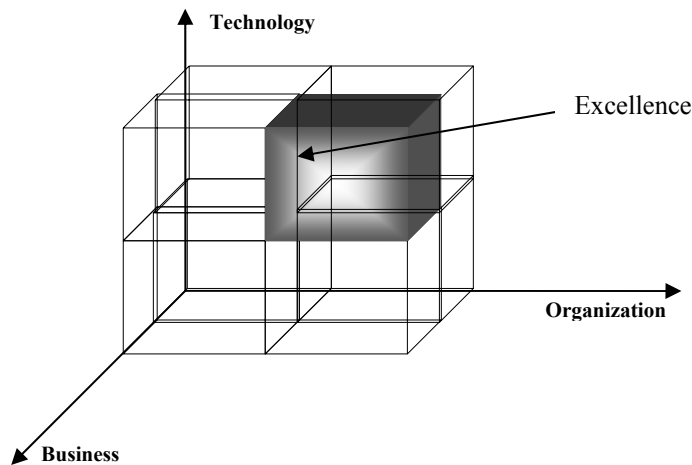
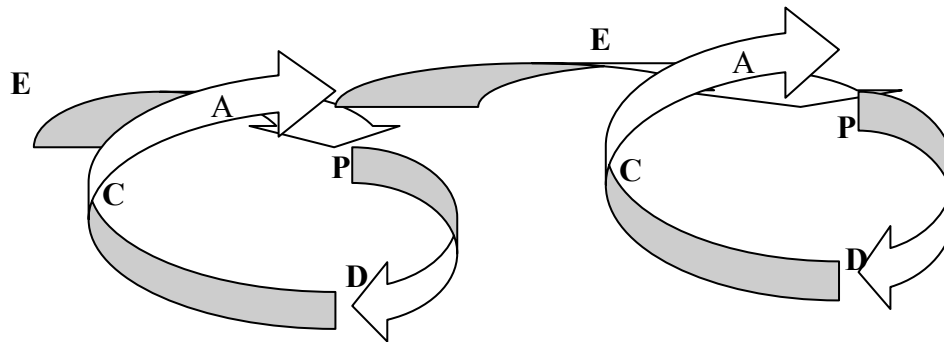


Figure 4. Coordinates of Excellence

Obvious, we cannot neglect the suggestive image proposed by Oakland based on the famous Deming’s cycle that leads to excellence (Figure 5), known as “the helix

of never-ending improvement” (Oackland, 1996). More recently, the new imperatives of sustainable development led to some tries of approaching excellence from this perspective. For example, the term "sustainable excellence" is used to designate "a firm that maintains itself in an exemplary situation - success, profit - for a long time and that adapts rightly and efficiently to the exigencies of socio-economic environment" (Popescu, 2005, p. 138). Thus, the excellence can be viewed as a successful combination in using internal and external resources by the management, through systematic generating and maintaining the positive long-term synergies.



E- Evaluate; P-Plan; D-Do; C-Check; A-Amend

Figure 5. Helix of never-ending improvement

Promoting sustainable excellence in Europe is also the declared mission of the European Foundation for Quality Management (EFQM), organization that defines excellence as an expression of the following eight fundamental concepts (<http://www.efqm.org>): 1) Achieving Balanced Results; 2) Adding Value for Customers; 3) Leading with Vision, Inspiration and Integrity; 4) Managing by Processes; 5) Succeeding through People; 6) Nurturing Creativity and Innovation; 7) Building Partnerships; 8) Taking Responsibility for a Sustainable Future. It can observe that these concepts, which are the underlying principles of the EFQM Excellence Model (as described in the next section), have explicit or implicit connections with the basic principles of TQM.

3. BUSINESS EXCELLENCE IS TQM? AN OVERVIEW ON BUSINESS EXCELLENCE MODELS

Business Excellence is “excellence” in strategies, business practices, and stakeholder-related performance results that have been validated by assessments based on specific models proven to support the challenging journey towards excellence. TQM models are often called Business Excellence Models. Also, TQM itself is now often called Business Excellence. This is to distinguish the “new” TQM from the past work on TQM. There was confusion as to what TQM was in the 80s and early 90s. In a great measure, this was because a tendency of naming any business improvement programme as TQM. Therefore, the name TQM became tarnished. Business Excellence is really the same as TQM, but with a more clearly defined approach. In

this sense, an interesting point of view is emphasized by the authors of the paper “Quality is dead in Europe - long live excellence - true or false?” (Dale et al, 2000). It is a deliberately provocative paper that challenges the replacement of the terms quality and TQM with the term “excellence” in the model developed by EFQM.

The first Business Excellence models were developed in the mid-1980s and came about as a result of the quality movement in the West, which in turn was a response to the advancements in quality and competitiveness in Japan. The models themselves began as quality awards or TQM models, as TQM had emerged in the mid-1980s as the new philosophy and panacea for businesses. Over time, the term “Business Excellence” started to replace the terms “Quality” and “TQM”, partly as a result of the before mentioned considerable confusion as to the meaning of TQM (since all types of business improvement programmes were being called TQM). Today, many countries view Business Excellence models as a key mechanism for improving the performance of organisations, as well as national competitiveness.

The most popular of these models are manifestations of principles of TQM implementation in the entire organisation. By far the majority of organisations that use such a model do so for a self-assessment through they can identify improvement opportunities, areas of strengths, using the model as a framework for future organisational development. In the followings, we present an overview of some referential Business Excellence models.

3.1. The EFQM Model

The EFQM Excellence Model has recently been reviewed and revised so to align the framework with current business needs and trends. Used as a tool for assessment, it delivers a picture of how well the organization compares to similar or very different kinds of organizations. As a management model, it can be used to define aspirations for the organization’s capability and performance. EFQM model supports organizations in defining what sustainability means, providing approaches for its implementation and ensuring consistency between apparently conflicting responsibilities toward shareholders, employees and society.

In brief, the key changes of the reviewed EFQM Excellence Model 2010 (Figure 7) are:

- Fundamental concepts are now full integrated with the 9 criteria.
- Bullets from Fundamental Concepts for the basis of the bullets is in the relevant criterion parts.
- Language simplified, numbers of “may include” bullets reduced and now focus on what excellent organizations do in practice.
- Concepts incorporated or emphasised include Creativity and Innovation, Sustainability, Corporate Governance, Organizational Agility, Risk Management, Promoting products & services, Supplier Management
- Results focus on “key results required to achieve the organization’s vision and strategy”
- This is written into both the nine criteria and the RADAR e.g. scope, targets and benchmarks should focus on key results

- Future focus increased (sustaining excellent performance)
- Weighting applied to the criteria has been reviewed and simplified (as we can see in red in Figure 7, all are now of 10% except Customer Results and Key Results with 15% each).



Figure 7. EFQM Excellence Model 2010

According to some recent estimation there are at least 76 countries operating a national Business Excellence award and the Foundation (EFQM) believes that, in Europe alone, at least 30,000 organisations use its model. The EFQM estimation is based on the number of EFQM members, plus the members of its national partners and other organisations about there are information that they use the model. The purpose of use varies by the different managerial targets, from mergers up to self-assessment, as shows Figure 8.

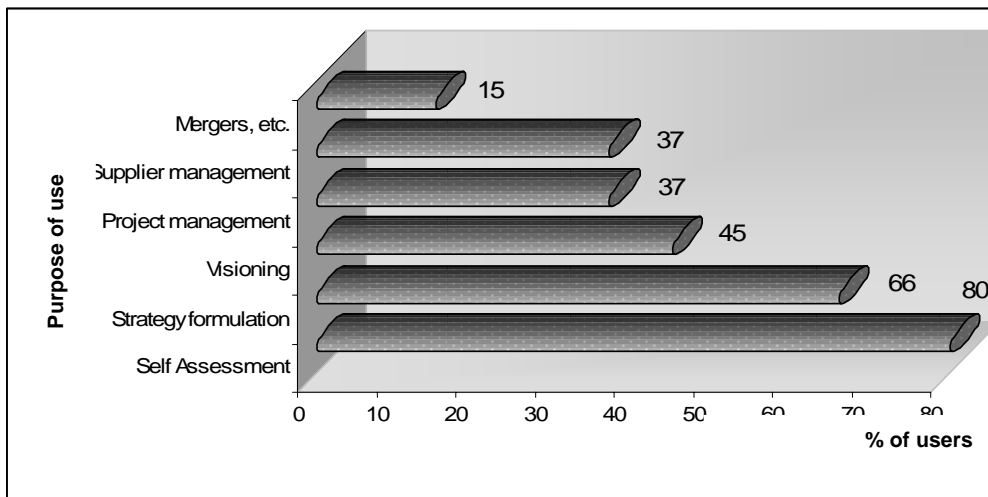


Figure 8. EFQM Excellence Model - purpose of use

3.2. The Baldrige Model

The most popular and influential model in the western world is the one launched by the US government called the Malcolm Baldrige Award Model (also commonly known as the Baldrige model, the Baldrige criteria, or The Criteria for Performance Excellence). More than 60 national and state/regional awards base their frameworks upon the Baldrige criteria. In the US nearly two million copies of the Malcolm Baldrige Model (Figure 9) have been distributed since the award's launch in 1988.



Figure 9. Malcolm Baldrige Model

The Baldrige model provides a systems perspective for understanding performance management and reflects validated, leading-edge management practices against which an organisation can measure itself. With their acceptance nationally and internationally as referential model for performance excellence, the Baldrige criteria represent a common language for communication among organisations for sharing best practices.

3.3. The Australian model: Business Excellence Framework

The Australian model, named Business Excellence Framework (BEF), is defined as „an integrated leadership and management system that describes the elements essential to sustainable organisational excellence” (<http://www.saiglobal.com/business-improvement/process/framework/excellence.htm>).

BEF is based on enduring principles of organisational improvement that are interpreted according to individual business settings using seven ‘Categories’ and seventeen sub-categories, or ‘Items’. The seven business settings (Categories) are the following: information and knowledge; leadership; customer and market focus; strategy and planning; people; process management, improvement and innovation;

success and sustainability. The organisation's performance against each Category and Item is evaluated using the Assessment Matrix ADRI that shows the extent to which the organisation's systems and operations are aligned to the principles of Business Excellence.

The dimensions used in assessment form an organisational learning cycle (Figure 10) which can be used to examine the organisation's performance against each Item. In a recent survey, organisations that used BEF were asked to estimate whether or not their performance had improved as a direct result of applying this approach. The main findings suggested that almost all these organisations have reported benefits and those that had used BEF for a longer period were more likely to indicate greater improvements of their performance.

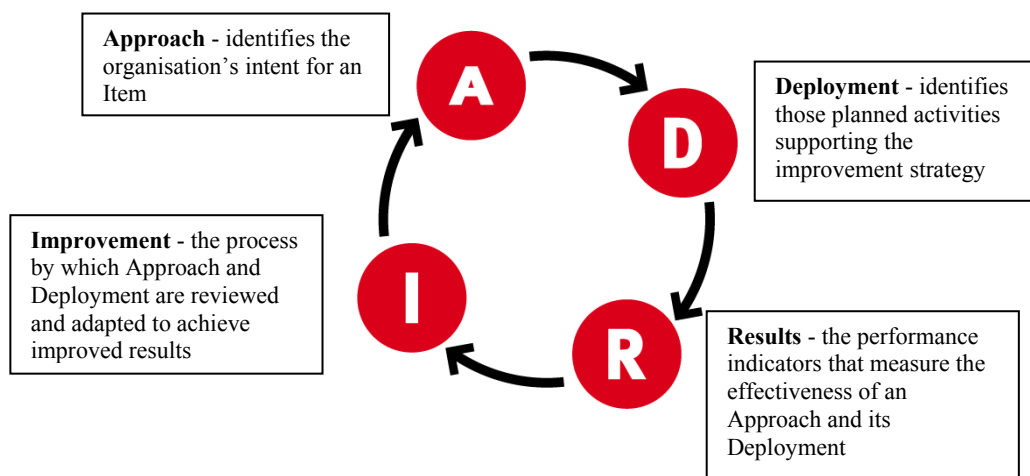


Figure 10. Assessment Matrix ADRI

4. THE STATE OF "EXCELLENCE" IN ROMANIA

In Romania, "the journey" through TQM toward Business Excellence began in fact after 1990 with the transition to the quality assurance approach. Very likely, the major driving force was the imperative of EU integration that imposed a series of necessary changes related to harmonizing national legislation, structures and procedures with those of European Community countries. In a pertinent analysis of the existing situation after a first decade of attempts aiming at quality assurance, Professor Drăgulănescu (Drăgulănescu, 2004, p.2) noted that: "Between 1991-2000, a third of Romanian companies were privatized and a lot of companies (both state-owned or private) attempted to become profitable and even competitive on foreign markets, by adopting ISO 9000 quality systems and by certifying them. That was a difficult step aimed to initiate and achieve the transition from Inspection to Quality Control and Quality Assurance. The State Quality Control was dead but its heritages are still alive (some of them are: lack of managers' commitment for quality, lack of employees' motivation for quality, and even some resistance to change). Thus, in Romania, quality is no longer the "State's problem" but everyone's problem! The former bottom-line

orientation in quality matters begun to be replaced by a general concern of all employees for quality”.

Concerning the implementation of the Business Excellence models, in 2000 it was launched in Bucharest, the “Joseph M. Juran Romanian Quality Award”. Subsidiarily this was also a decision with emotional loading for us: to pay thus a modest homage to a guru of quality, Dr. Joseph Moses Juran (1904-2008), that was born in Romania, in Brăila and immigrated with his family in USA in 1912 (<http://www.enotes.com/management-encyclopedia/quality-gurus>).

This national Quality Award is based on the former version of EFQM Model, i.e. the framework for European Quality Award used in Europe until 2000, so he adopted the same criteria, sub-criteria and weights. According to J.M. JURAN Foundation Romania, after the ninth edition of the national competition awards (November 2009), one can consider that there are at least 50 organizations in our country who have assimilated and applied with great results this know-how in management (<http://www.fundatia-juran.ro/>).

Another significant step could be considered the emerging interest of Romanian organizations from different sectors in becoming members of EFQM. Thus, according membership list available at EFQM site among the member organizations (in number of over 500, in March 2010) are included ten organizations from our country (<http://www.efqm.org/en/PdfResources/EFQM%20Members.pdf>). This is encouraging even if we think just that the name of some Romanian companies appears along with worldwide famous names like Bayer, BMW, Coca Cola, Fujitsu, Hugo Boss, Microsoft, Nestle, Philips, Rolls-Royce, TUV, Volkswagen, Volvo, Xerox.

On the other hand, we must remember that Professor Drăgulănescu showed in 2004 that in Romania were more than 700,000 companies, of which over 1000 already certified ISO 9000 but without an actual implementation of TQM, as European version of American approach of Total Quality Control (TQC). Thus, he points out the need to co-operate further with US organizations and professionals interested to promote quality approach of TQC in Romania. His personal implication, including as founder member of Romanian Foundation for Quality Promotion, is justified in the following terms: “They will be welcome in order to help us to remove the heritages of the former passive-repressive approach of quality and to define, promote and implement a future Romanian National Policy of Quality. The US Baldrige National Quality Program is a model for Romanians!” (Drăgulănescu, 2004, p.4).

5. CONCLUDING REMARKS

Our paper synthesized the results of a literature review in the “hot topic” of excellence in business, thus joining various conceptual approaches and applicable models at the national and international level. By highlighting the connections between the referential concepts & models of BE and basic principles of TQM we tried to contribute to a better general understanding of what means today excellence in business and how worldwide organizations should act to achieve it. In brief, on this general direction, the paper argues that TQM is the *sine qua non* condition for any organization which targeting excellence in business. Furthermore this is not a simply

target but rather a continuous journey toward higher levels of organizational performance which imply a continuous process of quality improvement. Of course, this is true for the organizations from our country too.

By describing the steps taken so far in Romania, the paper reveals certain directions that our organizations should and could act in the future, while providing as points of reference few updated versions of relevant excellence models and opinions of the Romanian specialists in this matter.

As a final remark, we may consider our journey to achieve excellence in business as being just in progress. Therefore is very important for each of us to understand clearly that entering and maintaining in this helix of never-ending quality improvement is a resultant of daily individual actions (starting with top managers and ending with bottom-line workers).

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FRANCHISING AND ITS APPLICATIONS IN SLOVAK REPUBLIC

MIRIAM JANKALOVÁ, RADOSLAV JANKAL *

ABSTRACT: *The paper focus on characteristic of franchising as the opportunity for firms to start the business. Franchising is an agreement in which franchisees receive the right to operate a business under the franchisor's trade name in exchange for paying a fee and operating according to a specific plan (Flităr, 2003). In other words, this method of distribution is based on a contract in which the franchisor gives franchisees the right to operate a business under its trade name. In exchange, the franchisees pay a specific amount and operate the business according to a plan specified by the franchisor (Flităr, 2003). We also analyse the situation in Slovak republic where franchising is still used not so often as in the other EU countries.*

KEY WORDS: *franchising; code of ethics; franchisor; franchisee*

JEL CLASSIFICATION: *L14*

1. INTRODUCTION

The globalization of the business world gives special opportunities for firms all over the world. However, co-operation between firms from different countries or different cultures did not always lead to the anticipated results because differences concerning partners' way of thinking were neglected.

Knowing the variety of thinking structures facilitates mutual understanding between persons involved in activities that outrun the borders of a country or the limits of a culture (Dima & Man, 2001). One of these opportunities for firms is also the franchising.

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Franchising is a particular form of associated commerce, in others words a business partnership between a franchisor and his independent partners - the franchisees. For further explanation and specification of this term, we are mentioning the definition, which we could find on the beginning of The European Code of Ethics for Franchising, where is listed the following (European Franchise Federation, 2008).

"Franchising is a system of marketing goods and/or services and/or technology, which is based upon a close and ongoing collaboration between legally and financially separate and independent undertakings, the franchisor and its individual franchisees, where by the franchisor grants its individual franchisee the right, and imposes the obligation, to conduct a business in accordance with the franchisor's concept.

The right entitles and compels the individual franchisee, in exchange for a direct or indirect financial consideration, to use the franchisor's trade name, and/or trademark and/or service mark, know-how¹, business and technical methods, procedural system, and other industrial and/or intellectual property rights, supported by continuing provision of commercial and technical assistance, within the framework and for the term of a written franchise agreement, concluded between parties for this purpose".

Franchising is most suitable for businesses where it is possible to spell out rules for day-to-day operations. Thus, hotels, print-shops, fast-food restaurants, oil-change facilities are often franchises. (Flităr, 2003) In addition we find office supplies, clothing, hairdressers, hardware (Baron & Dobre-Baron, 2003) franchising concepts etc.

While franchising is a relatively structured type of channel, creative marketers have found ways to distinguish their franchise to provide extra value. For example, when John Tillman bought a McDonald's restaurant near the University of Houston, he wanted to meet the needs of the university community. He set up a room with four copiers, three computers, two laser printers a fax machine and a machine for binding reports.

¹ "Know-how" means a body of non patented practical information, resulting from experience and testing by the Franchisor, which is secret, substantial and identified;

- "secret" means that the know-how, as a body or in the precise configuration and assembly of its components, is not generally known or easily accessible; it is not limited in the narrow sense that each individual component of the know-how should be totally unknown or unobtainable outside the Franchisor's business;
- "substantial" means that the know-how includes information which is indispensable to the franchisee for the use, sale or resale of the contract goods or services , in particular for the presentation of goods for sale, the processing of goods in connection with the provision of services, methods of dealing with customers, and administration and financial management; the know-how must be useful for the Franchisee by being capable, at the date of conclusion of the agreement, of improving the competitive position of the Franchisee, in particular by improving the Franchisee's performance or helping it to enter a new market.
- "identified" means that the know-how must be described in a sufficiently comprehensive manner so as to make it possible to verify that it fulfils the criteria of secrecy and substantiality ; the description of the know-how can either be set out in the franchise agreement or in a separate document or recorded in any other appropriate form.

In another room, Tillman installed a several video games. Inside the restaurant area, he used plenty of neon and gas to create an atmosphere appealing to his student customers (Flităr, 2003).

It results from given definitions that the term franchising does not have exactly specification and everybody can imagine something else under that term. In spite of this fact, exactly the definition descends from The European Code of Ethics for Franchising considers to be the most frequently applicable in the given section, because it enriches the internal culture not only the members of the European Franchise Federation (EFF)², but also the countries, of which the national franchise associations aren't the members of the EFF.

The contents of that Code is not limited only on above-mentioned definition of the term "franchising", of what evidence are the following facts (European Franchise Federation, 2008):

- the Code of Ethics presents the practical set of main principles of fair behaviour for the franchising parties:
 - both parties shall exercise fairness in their dealings with each other;
 - parties should resolve complaints, grievances and disputes with good faith and goodwill through fair and reasonable direct communication and negotiation;
- it determinates principles and obligations by franchisees obtaining:
 - franchisor should select and accept as individual franchisees only those who, upon reasonable investigation, appear to possess the basic skills, education, personal qualities and financial resources sufficient to carry on the franchised business;
- obligations of the franchisor³:
 - to operate a business concept with success, for a reasonable time and in at least one pilot unit before starting its franchise network;
 - to be the owner, or have legal rights to the use, of its network's trade name, trade mark or other distinguishing identification;
 - to provide the individual franchisee with initial training and continuing commercial and/or technical assistance during the entire life of the agreement;
- obligations of the franchisee⁴:
 - to devote its best endeavours to the growth of the franchise business and to the maintenance of the common identity and reputation of the franchise network;

² *Austrian Franchise Association; Belgian Franchise Federation; British Franchise Association; Croatian Association For Franchising; Czech Franchise Association; Danish Franchise Association; Finnish Franchising Association; French Franchise Federation; German Franchise Association; Greek Franchise Association; Hungarian Franchise Association; Italian Franchise Association; Netherlands Franchise Association; Portuguese Franchise Association; Slovenian Franchise Association; Swedish Franchise Association; Swiss Franchise Association; Turkish National Franchise Association*

³ *The franchisor is the initiator of a franchise network, composed of itself and its individual franchisees, of which the franchisor is the long-term guardian.*

⁴ *The franchisee is the franchise recipient, the client and the partner of the franchisor.*

- to supply the franchisor with verifiable operating data to facilitate the determination of performance and the financial statements necessary for effective management guidance, and allow the franchisor, and/or its agents, to have access to the individual franchisee's premises and records at the franchisor's request and at reasonable times;
- to not disclose to third parties the know-how provided by the franchisor, neither during nor after termination of the agreement;
- structure and contents of the franchise agreement:
 - the franchise agreement shall comply with the National law, European community law and the Code of Ethics and any national Extensions thereto;
 - the agreement shall reflect the interests of the members of the franchised network in protecting the franchisor's industrial and intellectual property rights and in maintaining the common identity and reputation of the franchised network;
 - all agreements and all contractual arrangements in connection with the franchise relationship shall be written in or translated by a sworn translator into the official language of the country the individual franchisee is established in, and signed agreements shall be given immediately to the individual franchisee;
 - the franchise agreement shall set forth without ambiguity, the respective obligations and responsibilities of the parties and all other material terms of the relationship;
 - the essential minimum terms of the agreement shall be the following:
 - the rights granted to the franchisor;
 - the rights granted to the individual franchisee;
 - the goods and/or services to be provided to the individual franchisee;
 - the obligations of the franchisor;
 - the obligations of the individual franchisee;
 - the terms of payment by the individual franchisee;
 - the duration of the agreement which should be long enough to allow individual franchisees to amortise their initial investments specific to the franchise;
 - the basis for any renewal of the agreement the terms upon which the individual franchisee may sell or transfer the franchised business and the franchisor's possible pre-emption rights in this respect;
 - provisions relevant to the use by the individual franchisee of the franchisor's distinctive signs, trade name, trademark, service mark, store sign, logo or other distinguishing identification;
 - the franchisor's right to adapt the franchise system to new or changed methods;

- provisions for termination of the agreement provisions for surrendering promptly upon termination of the franchise agreement any tangible and intangible property belonging to the franchisor or other owner thereof.

Despite the large determination of the franchise system, in regard of characteristics listed above, it is possible to observe, that The European Code of Ethics for Franchising as unofficial normative act doesn't substitute the national laws or the laws of the European Union.

The European Code is obligatory namely only for the franchise federation members and its breach is related with the sanction of member exclusion from the national franchise association. Moreover with that exclusion is usually related the loss of good name and image, what is for each enterprise more worse as only the exclusion from the association councils. (European Franchise Federation, 2008)

2. LEGISLATION RELEVANT TO FRANCHISING

Nowadays only a few States have franchising specific legislation (table 1, 2). There is no Slovak legislation specific to franchising. Franchising agreements are treated as commercial contracts and regulated by the Commercial Code.

The missing legislation substitute The Slovak Code of Ethics for Franchising, which is de facto identical with The European Code of Ethics for Franchising. Even though the legislative determination of franchising is not developed, smaller steps in given area realize the Slovak Franchise Association, of which the main aim is to create the most ideal franchise conditions for franchisors and franchisees.

Table 1. EU member States which directly affects franchising

Country	Year of legislation adoption
Belgium	2006
France	1989
Italy	2004
Lithuania	2001
Spain	1996
Sweden	2006

Source: European Franchise Federation, National Regulation by country, 2008
<http://www.eff-franchise.com/spip.php?rubrique21>

3. FRANCHISING IN SLOVAK REPUBLIC

Beginning of franchising development in Slovak republic from the year 1990 is connected with the transformation of the economy. The unawareness of the franchising principles, absence of experiences, limited approach to the information about franchising were the disincentive of the increased use of franchising.

Table 2. Non-EU countries which directly affects franchising

Country	Year of legislation adoption
Albania	1994
Australia	1974
Brazil	1994
China	2007
Indonesia	1997
Korea	1997
Malaysia	1999
Mexico	1991
Romania	1997
Russia	1996
Ukraine	2004
USA	1979
Vietnam	2006

Source: European Franchise Federation, National Regulation by country, 2008
<http://www.eff-franchise.com/spip.php?rubrique21>

It is possible to estimate that the Slovak franchising market is formed by circa 40 companies. Exact evidence of franchising concepts in Slovak republic doesn't exist.

These companies are mainly in:

- gastronomy/fast-food (table 3);
- office supplies (Office 1 Superstore);
- textile sale (Mango, Pull and Bear);
- food store (Coop Jednota, Samoška, POTRAVINY.eu);
- hairdressing (Frederic Moréno);
- accommodation service (Holiday Inn, Accor, Best Western).

Franchising or its components is used also by gasoline sale (Slovnaft) and by car rental (AVIS).

In comparison with other countries is the use of franchising in conditions of Slovak republic in much smaller range. Also here we can find the some Slovak franchising concepts. The most known in gastronomy is Pizza Mizza / Pizza Mizza Express concepts, realized by GastroNet. First Pizza Mizza restaurant was opened 1. 1. 2004 in Bratislava. This concept has 8 outlets in Slovak republic and also prepares the opening of other 4 outlets in the 2010. In the area of gastronomy / fast-food franchising concepts has more outlets only world-wide known McDonald's and Fornetti, which sell mostly the bakery products. A lot of franchising concepts has in the Slovak republic only 1 or 2 outlets.

In the area of real property has the strongest position international franchising concept RE/MAX with 60 outlets. The competitor in this area is Slovak concept Direct Real with 17 outlets.

Table 3. Summary of franchise gastronomy/fast-food concepts in Slovak republic

Franchising concept	Number of outlets
Fornetti	250
McDonald's	20
Pizza Mizza / Pizza Mizza EXPRES	7 / 1
KFC	6
Subway	6
PizzaHut	3
Staropramen - Trafená hus	3
Mr. KEBAB	2
Nordsee	2
Burger King	1
Hacienda Mexicana	1
Papa Chicken	1
Taco Rey	1

Source: own study

4. CONCLUSION

By the analysis of franchising usage in the Slovak republic we found out, that the most franchising concepts is in the area of gastronomy and fast food.

It is possible to allege, that in the still more demanding market environment, the franchising represent the appropriate manner how to meet the market needs and customer requirements. Franchising helps to hold and possibly to extent the market position and to pass in the competitive environment through verified conception and know-how, through training programs and consultancy from the franchisor.

On the end of our paper we quote the franchising assets for Slovak economy:

- increase and improvement of goods and services quality;
- improvement of approach to customer;
- increase of competitiveness through the franchisor skills, know-how and technologies;
- more cooperation possibilities inside of franchising network;
- new working places - employment rate growth.

Even though in the Slovak republic is no franchising specific legislation and similar situation is in the most countries, the environment for franchising in the Slovak republic is very favourable. The fact that the legislation is fully compatible with EU law, mean optimal situation, law security and the offer for expansion of franchising concepts also in the Slovak republic.

The use of franchising in conditions of Slovak republic is in much smaller range as in other countries, for that reason the Slovak republic still offers a lot of opportunities and benefits to start franchise business.

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IMPLICATIONS OF CROSS-BORDER MERGERS AND ACQUISITIONS IN THE POLISH BANKING SECTOR IN THE CONTEXT OF THE GLOBAL FINANCIAL CRISIS

ZBIGNIEW KORZEB *

ABSTRACT: *The article presents the implications of the global financial crisis upon the Polish banking sector, formed under the influence of cross-border mergers and acquisitions. It illustrates the consequences of financial problems of foreign strategic shareholders in banks operating in Poland upon the stability of the entire banking system. It presents the proposed future directions of action to protect the stability of the banking system. It seems that in the case of a banking system as special as the Polish one, the key role will belong to the quality of the three main pillars of control over the work of banks: supervisory institutions, market discipline and corporate governance.*

KEY WORDS: *banks; mergers and acquisitions; takeovers; cross-border; subprime crisis; corporate governance; bank supervision and regulation; market discipline; CEO reputation*

JEL CLASSIFICATION: *G21, G34, G15, G14, G28, F36*

1. INTRODUCTION

The unprecedented scale of the crisis in the financial sector clearly demonstrated the inadequacies of the concept of economic operation subordinated to indiscriminate maximisation of shareholder value. As the mechanisms of operation of the largest investment banks were revealed, along with the weaknesses of the warning systems and risk management models, inadequate evaluations by rating agencies and recommendations by specialised consultancy companies, the entire philosophy of modern corporate management suffered a defeat. In the present times, investors demand only positive information about their company's performance: permanently increasing profits, ever growing performance indicators, rationalisation of expenses etc., which effectively contributes to growing share prices and higher dividends.

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Expectations concerning the invested capital change, and the time-scale of the expected returns shortens. The ever-present pressure from shareholders to generate higher rates of return forces banks' boards to undertake high-risk actions and contributes to an increased probability of practices connected with moral hazard.

Linking bank managers' motivation systems to the profits made by their companies often leads to a conflict of interest, combined with a decline in professional ethics and boards gaining unjustified benefits from presenting financial reports in a manner allowing for concealment of the company's actual condition from its shareholders. Thus they facilitate unethical and illegal practices of manipulating short-term profit on the part of the managerial staff, focused only on the tasks related to their variable pay. Such construction of the system of motivation enhances the fear of failure (loss of the part of remuneration dependent on the achievement of goals, or removal from the position), but it does not force managers to stimulate activity (particularly in the case when the required annual limits have already been obtained), it hinders initiative, does not encourage innovation or risk-taking, without which it is impossible to succeed in a competitive environment. The managers' natural aspiration to maximise personal earnings leads to the situation, where, regardless of which corporate value indicator is linked to the managers' earnings, they eventually focus on maximising the level of this indicator, and not the corporate value.

The problem of illegal conduct of managerial staff focussed on personal interest does not concern banks alone. To a large extent, it concerns managers of other stakeholders in banks: rating agencies, auditors, tax advisers, lobbying organisations, public relations companies, lawyers' offices etc. This is the only explanation why the systems of supervision, risk management models and tools for evaluation of economic and financial condition proved so ineffective in the case of the banks' high capital involvement in financial instruments connected to the property market.

The unprecedented wave of interventionism in the form of capital support for falling banks, clearly illustrated the direct transmission of the costs of the financial crisis to the ordinary taxpayer. Paradoxically, the government aid and support provided by central banks in the countries affected by the crisis, contributes to perpetuating the status quo. The aid provided in order to prevent rapid depreciation of banks' assets interferes with market mechanisms, contributing to erroneous evaluation of the banks' value adequate to their situation. Furthermore, activating rescue plans creates serious danger of abandoning internal actions aimed at restructuring the banking operation, due to the growing conviction that in case of problems, private banks will be saved by an interventionist state policy. The state intervention did prevent the crisis from spreading much wider and protected the global financial market from the results of a turbulent 'domino effect'. However, it did not eradicate the causes which may lead to the reoccurrence of the present crisis in the future. The mechanisms of creating complicated financial instruments in order to produce high rates of return are well known. The entire system, which led to financial destabilisation of several important banks and even threatened liquidity of individual states may be applied again in investment policies of certain banks conforming to personal interests of their managers.

The objective of this paper is to determine the influence of the global financial crisis upon the stability of operation of the Polish banking sector, formed under the influence of cross-border mergers and acquisitions.

2. THEORY

The spreading financial crisis means it is necessary to consider the consequences of the global expansion of the largest banks, as well as the influence of their financial problems upon local markets. The period of over a dozen years of prosperity at the capital markets facilitated the emergence of an unprecedented apotheosis of success. Only winners count these days. The media fall over themselves to cultivate the image of best managers, nobilitating winners of prestigious rankings based largely on the dynamics of net profits, the increase of the balance sheet total, the managers' incomes etc. Such perception contributes to firm belief in bank managers' ability to consistently improve their performance in the future. On the one hand, this strengthens competition within the sector and stimulates managers to seek innovative solutions, on the other, it contributes to their undertaking high-risk investment activities.

Mergers and acquisitions have become a form of seeking sources of income alternative to the traditional operation based on classic banking activities. Such transactions, which are among the most complicated investment undertakings, allow for large profits to the shareholders, as long as they are conducted effectively and the synergy effect is utilised. Unfortunately, they fit into the agency theory, according to which most investment decisions determining the manner in which free cashflow is managed, are subordinated to personal interests of managers focussed on increasing their wealth (Jensen, 1986). Large complexity of the process of merging means that agency costs may prove particularly high. The managerial hypothesis is considered to be one of the motives attributed to managers deciding about mergers and acquisitions, in spite of the research proving that in most cases the shareholders of the acquiring bank usually bear loss (Hawawini and Swary, 1990; Moeller, et al., 2005). According to this hypothesis, consolidation processes are inspired by managers who are power hungry, focussed on their egos, orientated towards maximising their incomes and other elements of the motivation system and concentrated on increasing their personal prestige. The syndrome of empire-building is based on the premiss that in the system of motivating managers, prestige and power are a function of the size of the company. Remuneration of people in managerial positions increases along with the company's growth, even if it is not accompanied by growing wealth of the shareholders. Malemendier and Tate (2005) draw attention to yet another aspect. They analyse the impact of CEO overconfidence on mergers and acquisitions. According to them, overconfident CEOs are more likely to undertake acquisitions that do not, in expectation, create value.

Mergers and acquisitions can serve yet another objective. They obscure the actual economic and financial condition of both partners in consolidation. Jensen (2005) emphasises that the mechanisms meant to conceal the existing situation, once set in motion, will be repeated in the future. Malkiel (2007) sees the mechanism of a

pyramid scheme in such practices. The strategy is based on conducting a relatively cheap acquisition, limiting the operating costs of the acquired bank, and dynamically increasing the dividend payout and payments transferred to the main shareholder, thus making further acquisitions possible. Malkiel indicates, that as long as the scale of mergers increases in geometrical progression, nobody is hurt. Such operations cannot last for too long. Creating value for shareholders does not mean arbitrarily setting unrealistic goals to be achieved in subsequent accounting periods. However, the mechanism creates unimaginable short-term possibilities.

Such actions are at odds with the basic objective of banking operation, i.e. with maximisation of the shareholder value at the accepted level of risk accompanying the banking operation. It interferes with each of the three basic elements of the value creation: appreciation of share prices and possibility of obtaining potential dividends, capacity to generate free cash flow through the bank as well as the manner of its reinvestment in subsequent years. As stated by Fiordelisi and Molyneaux (2006), there can be no apparent contradiction between the interests of the managers and those of the owners. Otherwise, the managers might be able to destroy the owners or the owners might not achieve their goals. Damodaran (2001) draws attention to the fact that there is no flawless mechanism of increasing value, unless maximising it is the objective of CEOs. If other objectives obscure this chief one, the managers will be able to cheat any measure used for increasing corporate value.

Yet another problem is the attitude of managers towards other stakeholders in the bank. It is not possible to manage a bank by analysing personal interests of all interested parties, however, all too often bank boards, blinded by their egos, display lack of elementary respect for the parties, who depend on the bank to implement their goals. Maximising shareholder value is not possible without respecting the rights of the stakeholders. Long-term costs connected with loss of reputation will always outweigh short-term benefits. The following are among the risks resulting from the managers' conviction about their infallibility:

- (i) undertaking actions at odds with the professional ethical code and the principles of good banking practice,
- (ii) saving a parent company in financial and economic trouble at the expense of prospering dependent companies,
- (iii) transferring profits abroad and draining away the capital necessary for good operation of the acquired banks,
- (iv) attempts to conceal the actual situation of the bank, resulting from wrong decisions, by conducting mutual transactions within the capital group, and accounting operations blurring clarity of financial reports and making it difficult to adequately evaluate its condition,
- (v) distrust towards local managerial staff may contribute to mistakes resulting from insufficient knowledge of local organisational culture, customs, preferences and needs of clients,
- (vi) introducing western systems of bank management and indiscriminate implementation of methods of banking risk assessment, which does not necessarily work in different social and economic conditions,

- (vii) the requirement to uncritically carry out orders as one of the most important criteria taken into account in the process of defining competence profiles of managerial staff; quite often, people who are talented and proactive are forced to leave structures of a bank undergoing integration, because they cannot agree with erroneous policies of the foreign board.

Undoubtedly, the concept of shareholder value is far from perfect. Nevertheless, the primacy of shareholder value will remain the dominating model, to which strategies of commercial banks will be subordinated and on which they will be based. Thus it will constitute the core of mergers and acquisitions in the banking sector. The issue is still to find rational solutions allowing for avoiding agency costs resulting from apparent conflict of interest between managers and shareholders, by controlling the managers via effective supervisory institutions, market discipline and effective corporate governance.

Supervisory institutions and regulations they apply are aimed at increasing the stability of the entire banking system and individual banks. On the other hand, too intensive regulation of the market may contribute to the boards' circumnavigating those regulations. Tighter regulations on bank entry and bank activities boost the cost of financial intermediation (Demirgüç-Kunt, et al., 2004). Bris and Cabolis (2008) have shown that stronger shareholder protection and accounting standards in the acquirer's country result in a higher merger premium. That is why Barth, Caprio and Levine (2004) specify that regulatory and supervisory practices work best to promote bank performance and stability when they force accurate information disclosure to empower private-sector monitoring of banks and create incentives for private agents to monitor banks.

Market discipline plays an important role in banking behaviour and supervision through making adequate and relevant disclosures to market participants. Reazee (2001) emphasises that an effective market discipline requires: (i) the enhancement in the amount and kind of public disclosure that uninsured claimants need about bank activities and on-and-off balance sheet assets; and (ii) the establishment of new disclosure standards to uniformize and improve banks' public disclosure and risk-management practices. Nier and Bauman (2006) specify, that market discipline plays a crucial role in guaranteeing the maintenance of adequate levels of capital by banks. Effective public disclosure of information increases market discipline and enables investors to better evaluate the risk they undertake in banking.

Wang and Xie (2009) draw attention to the role of effective governance. They suggest that the one possible source of synergic gains from mergers and acquisitions is the improvement of corporate governance effected by changes in control. They find that the total return of an acquisition increases with the difference in shareholders rights between the acquirer and the target. Bris, Brisley and Cabolis (2008) add that cross-border mergers allow firms to alter the level of protection they provide to their investors, because target firms usually import the corporate governance system of the acquiring company by law. Martynova and Renneboog (2008) find similar results. When the bidder is from a country with stronger shareholder orientation, part of the total synergy value of the takeover may result from the fact that the stronger shareholder focus of the acquirer may generate additional returns due to better

management of the target assets. They call this the *positive spillover by law hypothesis*. Rossi and Volpin (2007) go as far as contemplating whether cross-border mergers and acquisitions are a channel through which companies can opt out of a poor governance regime. Their main prediction is that in cross-border mergers and acquisitions companies from countries with good corporate governance should be acquirers and companies from countries with poor corporate governance should be targets.

There is no doubt that analysing sources and results of each financial crisis may contribute to identifying the determinants of bank safety. Nevertheless it would be difficult to assume that previous experiences will enable us to avoid such crises in the future. Still, the occurrence of the present crisis provides a chance to work on pragmatic solutions which can curb one of the main reasons of the crisis – the managers' ego.

3. EMPIRICAL RESULTS

3.1. Mergers and acquisitions data

The structure of the Polish banking sector was formed under the influence of mergers and acquisitions. Since the beginning of the system transformation in 1989, there have been 103 such transactions within the sector, of which 56 involved foreign investors. On 31/12/2009, 50 commercial banks operated in Poland, of which 6 with majority Polish capital, the rest with majority foreign capital, or acting as branches of foreign credit institutions (KNF, 2010). Among the banks with majority foreign capital, the key role in the shareholder structure (as far as assets are concerned) is played by investors from Italy, Holland, Germany and the United States. In total, foreign shareholders control 68,1% of the assets of the Polish banking sector. The share of the 10 largest banks in the assets of the sector systematically decreases, and amounts to 63,8%. On 30/06/2010, shares of 15 commercial banks operating in Poland and one foreign one were sold at the Warsaw Stock Exchange.

Commercial banks operating in Poland have a separate legal status and are subject to the national financial supervision and the Polish deposit guarantee system. They are therefore independent entities. High quality of banking supervision, relatively limited scale of global operation and modest involvement in high-risk securities resulted in relatively good economic and financial condition of the banks operating in Poland, with their healthy asset portfolios. The objective of this research is to analyse the reaction of investors to the problems of strategic foreign shareholders of banks operating in Poland and to determine how they assess the risk resulting from a possibility, that those shareholders will save their parent companies at the expense of the Polish banks.

3.2. Sample description

The research analysed the behaviour of Cumulative Abnormal Returns (CAR) and Buy-and-Hold Abnormal Returns (BHAR) in the banks quoted at the Polish stock

exchange, in reaction to the information about the bankruptcy of the Lehman Brothers, which initiated the sell-out of bank equity at stock exchanges around the world.

The researched sample included 13 banks operating in Poland. Two banks with very low stock liquidity were excluded from the sample. Expected daily returns are estimated for each bank from a standard model where $R_M(t)$ is the return of the WIG - banki sub-index. Calculations were carried out on the basis of closing quotations for banks' shares and the index for individual sessions of the stock exchange. In the analysed cases, the research concerned the behaviour of the return on bank equity in reaction to the information about the increasing crisis in two periods of time: from the day $t = -5$ to $t = +5$ (session days) and from the day $t = -30$ to $t = +20$ (session days). Evaluating the parameters of linear regression for the shares of each of the banks was based on the relationship between the return on equity and the return on stock exchange index during the period from $t = -220$, until $t = -60$ (session days) - the independent period.

3.3. Event study

Due to relatively small sample size and its heterogeneity, the results of this research must be approached with a large dose of reserve. The final results were influenced by the fact that in the researched period, the market was absorbing and discounting a large number of signals testifying of a global crisis in the banking sector. Complexity and individual character of mergers and acquisitions in the banking sector mean that each case should in principle be analysed on a separate basis.

However, there is no doubt certain tendencies at the Polish stock exchange, taking place after the information about financial problems of subsequent banks, could be observed. In general, the market gave much better evaluation of banks with majority foreign capital (even in the face of negative signals concerning strategic shareholders) than of the banks with majority Polish capital (Table 1.).

It can therefore be assumed that the immediate intervention (both in the form of direct financial support and guarantees for deposits) calmed down the nervous reactions of investors. The forms of assistance employed by the governments reassured the investors that the bankruptcies of the most important banks would not be possible.

The negative perception of banks with majority Polish capital resulted mainly from the fact that a half of the sample was constituted by small private banks with relatively high proportion of mortgage credits in their portfolio. Investors came to the conclusion that the dynamic credit action of those banks, initiated in the previous years and continued in the present one, must contribute to worsening quality of credit receivables in the future. The banks in Poland did not apply as liberal mortgage procedures as those in the United States, nevertheless there were instances of exceeding the 100% LTV (loan-to-value) ratio while granting those credits. Therefore, the investors assume that, should the Polish economy slow down, there may be problems with solvency of the clients of those banks.

Also the analysis of strategic shareholders who experienced difficulties due to the spreading financial crisis is unequivocal. Symptomatically, the chief victims of the crisis in the European market are the banks who participated in the most spectacular

European mergers of the recent years (Royal Bank of Scotland, UniCredit, Fortis, Commerzbank etc.).

Table 1. Cumulative Abnormal Returns and Buy-and-Hold-Abnormal Returns for the analysed case

Specification	Type of measurement	Time (days)	Values
Bank with majority Polish capital	ACAR	from -5 to +5	-0,0464
		from - 30 to +30	-0,1621
	ABHAR	from -5 to +5	-0,0338
		from - 30 to +30	-0,1385
Banks with majority foreign capital – revealed problems of the foreign strategic investor	ACAR	from -5 to +5	0,0208
		from - 30 to +30	0,0135
	ABHAR	from -5 to +5	0,0132
		from - 30 to +30	0,0057
Banks with majority foreign capital – no information about problems of the foreign strategic investor	ACAR	from -5 to +5	0,0602
		from - 30 to +30	0,0183
	ABHAR	from -5 to +5	0,0196
		from - 30 to +30	0,0183

On the one hand, active participation in cross-border mergers and acquisitions may testify of lesser aversion to risk in their strategies, on the other, however, it may mean higher probability of incurring agency costs. The thesis, promoted not long ago, that competitive advantage depends on the pace, direction and scale in which banks abandon their traditional operation, has been seriously challenged by the present crisis. The situation illustrates, how difficult it is to bring individual cases to inflexible regulations, norms and provisions aimed at stabilising the banking sector and supervising individual banks.

The results of the analysis indicate that investors did not share the fears about the dangers resulting from translation of the economic and financial problems of foreign strategic shareholders to the operation of banks active in Poland. It seems that the investors' behaviour resulted from the lack of past precedents. This, however, should not be used to justify not anticipating potential effects of such actions by foreign shareholders in the future.

4. CONCLUSIONS

The etatism applied in order to save the financial sector renewed the theoretical argument between the supporters of state interventionism and its opponents, who opt for the effectiveness of the operation of the market. The necessity to implement rescue plans showed that expecting self-regulation of the financial markets may prove insufficient, and that the state is (next to the market) a necessary regulator of the

economy. However, this cannot lead to an unequivocal ascertainment that the Keynesian school has won, along with neo-institutionalism and the views represented by the new, active economic policy. The system of help of unprecedented scale, implemented by central banks and governments of individual countries means, that the costs of risky and wrong investment decisions of banks will be born by average taxpayers – individuals and companies. The allocated funds force us to reflect upon the reasons for the existing situation, and to find solutions, which will prevent turning state assistance into excessive protectionism (particularly towards chosen participants of the market). Long-term effects of the state programs of support for the banking sector may prove decisively negative, not only for other social groups but for the situation within the sector as well. Applying broad interventionism may bring about demoralising effects. Boards of individual banks may continue to conduct high-risk operation and weaken their repair actions in the hope of receiving help from the state. Therefore, the crucial problem is not only the scale of the state assistance, but most of all setting general directions for it and the principles of allocating it in a manner not resulting in ineffective use of the resources.

The actions taken by public authorities and central banks were aimed at rebuilding confidence in the financial markets and banks themselves. The financial crisis resulted in an apparent demise of the ethos of banks as institutions of public confidence. Social responsibility of banks, the principles of corporate order, ethical norms of conduct proved to be a collection of empty slogans without any practical application. Rescue packages focussed on calming the situation at the financial markets by direct financial support meant to heal balance sheets of banks (including their nationalisation) and provide them with sufficient liquidity, by increasing the minimum guaranteed amounts for deposits as well as by significantly speeding up the work on the creation of an international supervisory institution.

It is worth considering, whether the interventions aimed at managing a crisis situation can be considered satisfactory in the context of future operation of the banking sector. This particularly concerns the cases, where the problems of a foreign strategic shareholder of a bank operating in Poland may lead to attempts to save the parent company at the expense of the bank operating in Poland, which is in good economic and financial condition¹. It seems that in the case of the unique banking sector in Poland, formed under the influence of cross-border mergers and acquisitions, the decisive role will be played by the quality of the three main pillars of control over the operation of banks: supervisory institutions, market discipline and corporate governance.

Supervisory regulations are aimed mainly at limiting risk in banking operation. Gregoriou and Renneboog (2007) add that “takeover regulation not only curbs conflicts of interest related to transfers of control, it also has more general impact on the agency problems between management and shareholders, minority and majority investors, and other stakeholders”. Nevertheless, the main problem remains the practical enforcement of the above principles. The crucial difficulty remains the

¹ A similar precedent took place in the case of the Lehman Brothers, who tried to save situation a few days before proclaiming bankruptcy by sacrificing British division.

impossibility of articulating all occurring cases within the inflexible framework of legal regulations. Innovative character of modern financial instruments and international range of operation of banks render effective control of the banks' investment operation practically impossible (lagging indicators). Forbidding the use of complex asset securitisation models and the creation of complex derivatives will lead merely to the creation of other derivative instruments, as risky as the products based on subprime credits.

Similar controversies concerning effectiveness of operation surround the proposition to create an integrated system of control over financial institutions in the European Union, and of a pan-European fund, which, analogically to the institution created in the United States, would be responsible for saving banks in trouble by buying out their toxic assets. Those propositions are affected by fundamental problems resulting from conflicting opinions of the member countries concerning the financing of those institutions, the criteria for electing their authorities, the manner of taking final decisions and the distribution of responsibility for the accumulated deposits. Creation of integrated supervision will favour the largest countries, while the existing problems of the weaker ones will remain unsolved. Therefore, it would be difficult to expect it to remove the existing threats concerning conflicts of interest resulting from worsening financial condition of strategic foreign investors, or the existence of agency conflicts within the banks themselves.

It is difficult to accept the proposed model in which all or most of prerogatives are delegated to the supervisor of the country of origin of the capital, while local taxpayers pay for the collapse of the bank. Although the idea of creating a supranational banking supervision, which would control the processes taking place at global financial markets is absolutely right, the decisive role will be played by mutual cooperation between the institutions in individual countries. The present financial crisis unequivocally exposed the weakness of supranational institutions. Economic interests of individual countries were translated mainly to the national level. Instead of an unanimous stance and common intervention, the EU countries undertook individual actions - their accordance with the EU competition policy and the rules on using public assistance was, at best, questionable.

That is why, in the case of the new institutions, it will be crucial to decide what strength of pressure and what possibilities of defence against negative actions directed against their national banks will belong to countries such as Poland, with a healthy banking system, in case foreign investors fall into trouble. If the final decisions are to be made by supervisory councils chaired by a representative of the country of the mother company, than one must question impartiality of such decisions. This particularly concerns managing liquidity at a national level, the quoted attempts to drain capital from foreign dependent companies in order to save the parent company, or the cases of possible obvious negligence resulting from purposeful actions of the managers wanting to maximise their income at the expense of incurring higher risk in their banking operation. It will be difficult to retain neutrality and objectivity in the context of conflicting interests and the necessity to choose between saving the dominating company in crisis and the increased risk of destabilisation of the banking system of the dependent company's country.

A pan-European institution, entering the field of competence of national supervisors, will therefore be unable to effectively substitute for their operation. It seems that the only pragmatic solution is to tighten cooperation between national supervisors in order to exchange information on the economic and financial conditions in banks operating in more than one country. Due to the lack of uniform supervisory and accounting standards, evaluation of an international holding causes many problems. It is extremely insufficient to analyse the condition of a foreign shareholder only via their financial performance. Many banks which found themselves in difficult situation generated relatively high net profits in subsequent accounting years and presented satisfactory levels of the main indicators, calculated on the basis of financial reports and share prices. If we read ex-post the enthusiastic forecasts of individual banks, concerning the perspectives for their operation, we can get the impression that the boards of those banks were themselves unable to spot the emerging symptoms of the crisis, or they purposefully kept certain facts from their shareholders.

Recapitulating, the actions of national supervisions ought to be focussed on (i) analysing the reports containing all transactions with the mother company (particularly deposits or other similar products); (ii) controlling the expenses on introducing and providing services between companies of the same capital group as well as other payments resulting from being its member; (iii) evaluating the level of dividends paid out.

In case the norms of security are violated or other irregularities are observed, which may threaten stability of the bank, national supervisions should be allowed to intervene by forbidding certain transactions, limiting them or forcing the existing shareholders to raise additional capital necessary to cover the risk connected with a particular transaction.

However, regulatory discipline is not without flaws. One is the inflexibility resulting from the necessity to introduce systematic changes into the prevailing regulations. The procedure of adjusting the existing regulations to the dynamically changing situation requires time, which in itself can constitute a source of regulatory risk. Another, much more serious problem is overregulating the market. Every attempt to limit the freedom of banking operation invariably leads to pushing chosen services into the unregulated sphere or moving chosen areas of operation to countries with more relaxed regulatory requirements (Buch and DeLong, 2008). This confirms the so-called Goodhart law – Goodhart noticed that 'any observed statistical regularity will tend to collapse once pressure is placed upon it for control purposes' (Goodhart, 1975). Introducing additional restrictions for commercial banks does not lead to the expected effect, because commercial banks find a way to provide the particular service under a different name or in a different way. Grandiloquent regulations Sarbanes-Oxley and Basel II did not significantly change the conduct of bank managements focussed on personal benefits. At the same time, the operation of regulatory discipline contributed largely to increased costs of banking operation, due to the necessary adaptation of procedures and dispositions of banks to the new regulations (Guiso, et al., 2007).

The imperfections of the regulatory discipline mean that it must coincide with the market discipline, which is among the best indicators reflecting the real situation of a bank. The operation of the mechanisms guaranteeing deposits did limit the negative

reactions of clients by weakening the role of the market discipline, nevertheless the decisive role was played by the reaction of the stock exchange markets, which instantaneously discounted the occurrence of negative symptoms of the worsening economic and financial condition of particular companies. It was no accident that in most cases the rapid reduction of share prices of the endangered banks preceded by a few days the official information about the bank's problems. The market's reaction, which resulted from information asymmetry, contributed to drawing conclusions about the emergence of significant, negative information influencing the share prices and constituting an objective early-warning system about problems of a particular bank.

Let us note a certain paradox connected with the financial crisis. Assuming there was no possibility of a strong form of market effectiveness occurring in reality, we must conclude that the access to confidential information - unavailable to most participants of the market - by a significant number of people from the management of the endangered bank contributed to revealing the bank's problems before the official statement was presented, i.e. it became a source of information for the remaining investors.

This does not change the fact that the basis for market discipline is possessing up to date and reliable information about a particular company by the participants of the market, which enables them to properly assess the economic and financial condition of the bank, its profits, type of operation and risk profile. Transparency of banks guarantees stability and builds confidence in the entire banking sector. Revealing negative information may contribute to a run on banks, and even lead to collapse of the weakest of them, thus increasing costs of intervention, but transparency ought to be the chief principle of operation of the banking sector.

In that context, the main task is to define the scope of information to be released, necessary for protection of minority shareholders and limiting their risk. This is important, since at present there are justified doubts whether the level of detail in the information revealed by banks is not too high, and whether such information packages are actually useful to investors. It would be difficult to say that publishing consolidated reports in their present form increases in any way the clarity of the presented data. It seems justified to substitute the multitude of useless data in the annual reports with the requirement to publish (analogically to the US Securities and Exchange Commission) the calculation of the TSR index in the context of the percentage share of assets of individual companies within the capital group.

The last element which ought to be changed in order to eliminate the existing pathologies is the professionalism of boards in commercial banks. It ought to be higher in order to strengthen corporate governance. If the role of the board is to evaluate financial reports of banks, to give opinions about long-term development programmes and annual financial plans, than their members ought to possess the necessary knowledge in order to monitor the bank's management and prevent strategic decisions not conforming with the interest of the shareholders. Masulis, Wang and Xie (2007) show for example that poor corporate governance encourages managers to indulge in empire-building acquisitions and these acquisitions incur more negative announcements returns. Meanwhile, in vast majority of cases the boards failed to

notice the symptoms of the upcoming crisis and – most importantly – were not held responsible for it.

The issue of holding people responsible for practices resulting from the conflict of interest is very controversial. It seems that the solution in which the only form of punishing managers for exposing shareholders of banks to losses is not paying out enormous severance pays and bonuses to them is extremely insufficient. It is hard to miss the fact that practically no one was held responsible for the present crisis (neither managers of banks, nor representatives of supervisory bodies, rating agencies, audit offices etc.). If the main reason for the crisis was the conduct of managers, than the only way to avoid similar occurrences in the future is to firmly and systematically fight practices of that type. In the case where the main inspiration for involving a bank in very risky investment transactions is subordinating those actions to personal gain, then the penal consequences ought to correspond with the magnitude of the offences. Penal consequences must, most of all, be a systematic tool for protecting shareholders, aimed at discouraging potential imitators. The only solution which could prevent similar practices in the future would therefore be huge financial fines ordered against individuals, along with a lifelong ban on occupying managerial posts in the banking sector.

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GROWTH PERFORMANCE AND PRODUCTIVITY OF RUBBER & PLASTIC PRODUCTS INDUSTRY IN PUNJAB

GULSHAN KUMAR *

ABSTRACT: *Present study is an endeavour to investigate growth pattern and productivity trends in small scale rubber and plastic products industry of Punjab. The growth of industry has been gauged in terms of variables - number of units, fixed investment, employment and production. Yearly growth rates have been computed to catch year- to- year fluctuations in growth and compound annual growth rates (CAGRs) have been worked out to ascertain the impact of the policies of liberalized regime on growth of this industry. Productivity trends have been sketched in terms of partial factor productivities of labour and capital. In order to understand the strengths and weaknesses of the industry, SWOT analysis has been conducted. The study revealed that the liberalisation has promoted the use of capital intensive and labour saving techniques of production leading to a dismal growth of employment and sluggish growth of number of units.*

KEY WORDS: *fixed investment; direct employment; production; labour productivity; capital intensity; capital output ratio; capital productivity*

JEL CLASSIFICATION: *F43, O14*

1. INTRODUCTION

Rubber and plastic are the two basic materials which are finding greater and greater application in modern industrialized environment. With the advancement of technology, a vast array of products made of rubber and plastic have come up which are not only efficient but also making new products affordable and costs effective.

In Punjab, the rubber and plastic industry in small scale sector has experienced several changes in line with the changing business environment under the policies of liberalized regime. The policies of liberalization have removed the protective umbrella for the large as well as small scale industries and have thrown them to weather the winds of free enterprise and competition. The basic philosophy behind economic reforms was to lift the Government controls and regulations on production, trade and

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investment in order to build a more competitive environment conducive to growth and efficiency. The removal of quantitative and non quantitative restrictions has a long term bearing on the survival and growth of small scale industries.

As per the Annual Survey of Industries (ASI) classification, rubber and plastic industry includes manufactures of rubber, tyres & tubes, retreating and rebuilding of rubber tyres; manufactures of plastic and plastic products.

During pre-liberalization and liberalization period, the rubber and plastic industry in the small scale sector of Punjab have made significant advances in absolute sense. The rubber and plastic products producing units (in the small scale sector)were only 1509 in the year 1980-81 which swelled to 3603 in 1991-92 but declined to the level of 3508 in the year 2004-05. As regards employment, the industry provided employment to 8437 persons in year 1980-81 which surged to 23962 persons in year 1991-92 and further climbed to the level of 20504 persons in the year 2004-05. In the sphere of fixed capital investment it was only Rs.15.16 crores in the year 1980-81 which jumped to Rs. 66.25 crores in 1991-92 and further advanced to the level of Rs.118.16 crores in 2004-05. Similarly, the level of production was only worth Rs. 34.36 crores 1980-81, increased to the level of Rs.151.42 crores in the year 1991-91 and further jumped to the level of Rs. 624.07 crores in the year 2004-05 (Directorate of Industries Punjab, 2005).

2. OBJECTIVES OF THE STUDY

A sound industrial development strategy is essential but obligatory to be framed on the basis of analysis of growth and productivity of concerned industry. In this study, an attempt has been made to dig the facts about rubber and plastic products industry in Punjab which can be treated as the conducive agents for policy formulation. The specific objectives of the study were:

1. To compute partial productivity of labour and capital, average capital output ratio and capital intensity.
2. To analyse the comparative picture of growth of number of units, fixed investment, direct employment and production during pre-liberalization and liberalization periods.
3. To carry out analysis of Strengths, Weaknesses, Opportunities and Threats (SWOT) of rubber and plastic products industry.

3. DATA BASE AND METHODOLOGY

Present study is based on secondary data for the period of 25 years i.e. 1980-81 to 2004-05. The data relating to number of units, employment, fixed capital and production of rubber and plastic goods industry (in small scale industrial sector) at aggregate level for the said period were culled from Directorate of Industries, Punjab. Since the figures of fixed capital and production were given at current prices, these have been converted into constant prices by deflating them with index number of the wholesale prices of manufactured products' total, taking 1993-94 as the base year. Yearly growth rates for all the four variables were computed to capture year-to-year

fluctuations in growth. Partial productivities of labour and capital were obtained as O/L and O/K. For making an assessment of the extent of amount of units of capital that are needed to produce a certain level of output as well as capital intensity, K/O and K/L ratios were also computed. Compound Annual Growth Rates (CAGRs) for overall period (1980-81 to 2004-05) and two sub-periods: pre-liberalization (1980-81 to 1991-92) and liberalization periods (1991-92 to 2004-05) for all the variables were estimated by fitting an exponential function of the following form:

$$Y_t = \beta_0 \beta_1^t e^{U_t} \quad (1)$$

Where Y_t is dependent variable, β_0 and β_1 are the unknown parameters, and U_t is the disturbance term. The equation (1) could be written in the logarithmic form as follows:

$$\log Y_t = \log \beta_0 + t \log \beta_1 + U_t \quad (2)$$

Above equation was estimated by applying Ordinary Least Square Method and compound rate of growth (gr_c) was obtained by taking antilog of estimated regression coefficient, subtracting 1 from it and multiplying the difference by 100, as under:

$$gr_c = (A.L.\hat{\beta}_1 - 1) \times 100 \quad (3)$$

Where $\hat{\beta}_1$ is an estimate for β_1 . The significance of growth rates was tested by applying t – test, given as follows:

$$t = \frac{\hat{\beta}_1}{s(\hat{\beta}_1)} \sim t(n - 2) \text{ d.f.} \quad (4)$$

where $\hat{\beta}_1$ is the regression estimate and $s(\hat{\beta}_1)$ is the respective standard error.

4. RESULTS AND DISCUSSION

This section presents the results and discussion of the study. The first subsection is devoted to analysis of growth of number of units, employment, fixed capital and production. Moreover, yearly growth rates were also calculated to capture the year to year fluctuations. The second subsection is devoted to the profile of capital intensity, capital-output ratio and partial productivities of labour and capital in rubber and plastic products industry. The third subsection deals with SWOT analysis of rubber and plastic products industry.

5. GROWTH PERFORMANCE

Measurement of growth has been one of the most extensively researched areas. The growth rate analysis provides the whole vision of growth performance. The year to year growth rates and compound annual growth rates (CAGRs) of number of units,

fixed investment, employment and production of rubber and plastic industry are shown in table 1. The results have been discussed in brief under the following four sub heads:-

Table 1. Compound Annual Year to year and Growth Rates (in percent)

Year	Number of units	Fixed investment (in Rs.Crore)	Direct Employment (in No.)	Production (in Rs.Crore)
1981-82	13.32	5.54	10.60	3.43
1982-83	8.42	6.29	8.13	7.37
1983-84	10.68	9.38	8.97	8.65
1984-85	8.82	3.10	9.16	2.61
1985-86	9.81	4.25	7.27	21.69
1986-87	7.63	13.87	8.75	9.63
1987-88	6.03	3.48	5.55	0.00
1988-89	9.04	12.59	7.61	5.80
1989-90	7.11	7.83	10.16	4.86
1990-91	5.20	5.06	5.46	9.57
1991-92	4.80	2.10	6.05	2.60
1992-93	2.78	-2.63	2.82	52.14
1993-94	3.75	8.28	4.99	16.79
1994-95	2.68	6.40	5.04	14.32
1995-96	4.97	8.61	6.51	2.60
1996-97	2.56	11.66	3.98	15.14
1997-98	2.54	14.00	4.08	13.58
1998-99	2.43	9.08	4.07	4.83
1999-00	1.95	6.21	2.50	27.36
2000-01	1.61	3.83	2.35	5.52
2001-02	1.41	4.86	2.57	5.96
2002-03	-22.98	-10.45	-26.68	-10.83
2003-04	-3.71	-10.74	-3.66	-5.43
2004-05	0.95	-3.89	1.20	0.23
CAGRs:				
PreLiberalization Period	8.21*	7.08*	7.93*	7.33*
Liberalization Period	0.08**	4.96*	0.63**	9.34*
Overall Period	3.91*	5.92*	4.47*	10.49*

Source: Calculated from the data supplied by Directorate of Industries, Punjab.

*Significant at 5 percent level of significance. **Insignificant at 5 percent level of significance.

Note: Fixed investment and Production figures are taken on 1993-94 constant prices to compute various growth rates.

NUMBER OF UNITS: Perusal of year to year growth rates of number of units as contained in column II of Table I exhibits swings in the initial years of the study period until 1988-89. Starting from a peak of 13.32 percent in 1981-1982 it went down to 6.03 percent in the year 1987-88 and jumped to 9.04 percent in 1988-89. Thereafter, the annual growth rates observed almost free fall with minor resistance

witnessed in the year 1993-94 and 1995-96. The year 2002-03 showed the disastrous fall of -22.98 percent followed by a growth rate of -3.71 percent in the year 2003-04. However, the year 2004-05 clocked the growth of 0.95 percent. Further perusal of the same column reveals that the pre-liberalization period noticed a significant compound annual growth of 8.21 percent but the liberalization period registered a virtual no growth by observing an insignificant compound annual growth rate of 0.08 percent. However, a CAGR of 3.91 percent was observed for overall period of the study.

FIXED INVESTMENT: Investigation of annual growth rates of fixed investment as compiled in Column III of Table 1 portrays phases of negative, low, moderate and spikes of high growth rates. The period 1981-91 observed relatively low growth rates i.e. 3.10 percent and 3.48 percent for the years 1984-85 and 1987-88 respectively and registered relatively high growth rates of the order of 13.87 percent and 12.59 percent during the years 1986-87 and 1988-89 respectively. The period 1991-2002 spots low growth rates of 2.10 percent and 3.83 percent during 1991-92 and 2000-01 respectively and high growth rates 11.66 percent and 14.0 percent during 1996-97 and 1997-98 respectively. The period is also marked by a negative growth of 2.63 per cent during 1992-93. The period 2002-05 can be termed as the worst phase as the growth rates remained negative through out during the said period. Further investigation of the column delineates a CAGR of 7.08 percent in pre-liberalization period as compared to a CAGR of 4.96 percent for the liberalisation period. However, a CAGR of 5.92 percent was observed during overall period of the study.

DIRECT EMPLOYMENT: The annual growth rates of direct employment as shown in column IV of Table I exhibits a pattern almost similar in the one observed in number of units. Starting from a peak of 10.60 percent in the year 1981-1982 and then showing fluctuations, the growth rate reached the level of 5.55 percent in the year 1987-88 and regained double digit annual growth figure of 10.16 percent in 1989-90. Thereafter the annual growth rates remained depressed and touched the level of 2.57 percent in 2001-02 after experiencing fluctuations of mild to moderate magnitude. The worst phase of growth rates commenced in 2002-03 when it plunged to register a growth rate of -26.68 percent followed by a growth figure of -3.66 percent in 2003-2004 and a final growth figure of 1.20 percent in 2004-05. Further perusal of the column suggests a much better CAGR of the pre liberalization period (7.93 percent) when compared with the CAGR of 0.63 percent belonging to the liberalization period. However, a CAGR of 4.47 percent observed for overall period of the study.

PRODUCTION: A glance at the column of production in the table 1 reveals that the annual growth rates of production do not mirror any consistent behaviour rather it portrays extreme volatility with wild swings moving in either direction. Starting from a low growth rate of 3.43 percent in the year 1981-82 jumped to a level of 8.65 percent in 1983-84, stooped again to a low level of 2.61 percent in 1984-85 and bounced aggressively to touch a peak of 21.69 percent in the 1985-86. Soon thereafter the annual growth rate fell to zero percent in 1987-88 and after fluctuations of moderate intensity, touched the highest peak of 52.14 percent in 1992-93. The annual growth rate started downhill journey again to touch a low level of 2.60 percent in 1995-96, rebounded to register a growth rate of 15.14 percent in 1996-97. It again slipped to a level of 4.83 percent in 1998-99 and mounted a peak of 27.36 percent in the

following year. The period 2000-05 paints a discouraging picture when the annual growth rate not only fell but entered the negative territory in the years 2002-03 (-10.87 percent) and 2003-04 (-5.43 percent) before finishing at a level of 0.23 percent in 2004-05. A further look of the same column demonstrates a CAGR of 7.33 percent in the pre-liberalization period and a CAGR of 9.34 percent in liberalization period. However, a CAGR of 10.49 percent was noticed in the overall period of the study.

The above analysis concludes that except the value of production, all other variables namely number of units, employment and fixed capital investment showed a decline in CAGR in the liberalization period over the pre-liberalization period. While CAGR of fixed capital investment declined marginally, whereas that of employment and number of units fell disastrously. Thus the policies of the liberalized regime have effected relocation, closure or consolidation of existing manufacturing units. It has also promoted capital investment and technological up-gradation in the rubber and plastic industry of Punjab but at the cost of employment.

6. PRODUCTIVITY ANALYSIS AND PROFILE OF RELATED VARIABLES

Productivity depends on the relationship between total output and related inputs such as labour and capital which have been used in production of that output. It is evident that the capacity of the economy to produce goods and services mainly depends on productivity of these factors. Productivity can be enhanced through proper utilization of such resources. It is widely agreed that increasing productivity is a barometer of good health of a system which allows producing at lower cost and makes it competitive both in short as well as in long run. Table 2 depicts the profile of capital intensity, capital output ratio and partial productivities of labour and capital of the rubber & plastic products industry of Punjab. This table also highlights the compound growth rates of capital intensity, capital-output ratio and partial productivities of labour and capital for the pre-liberalization and liberalization period. The detailed column wise explanation of table 2 is discussed as under:

LABOUR PRODUCTIVITY (AOLR): Labour productivity as compiled in column II of table II shows a decline in the initial years of study when it fell from Rs.0.0104 crores in 1980-81 to Rs. 0.0091 crores in 1984-85. It regained its previous peak of Rs. 0.0104 crores in 1986-87 and started skidding in the subsequent years to reach a level of Rs. 0.0093 crores in 1991-92. It commenced the uphill march from 1992-1993 and continued till 2002-03 with the exceptions for the years 1995-96 and 1998-99. However, AOLR fell marginally from the peak of Rs.0.0313 crores in 2002-03 to Rs.0.0304 crores in 2004-05. The column further highlights that the CAGR for the liberalization period (8.47 percent) registered a remarkable improvement over the CAGR of -0.54 percent belonging to the pre-liberalization period. However, a CAGR of 5.76 percent was observed for over all period of the study.

CAPITAL INTENSITY (DOM): Trends of capital intensity as shown in column III of Table 2 demonstrates that the capital intensity which was Rs. 0.0046 crores in 1980-81 fell to the lowest level of Rs.0.0038 crores in 1992-93 with great deal of fluctuations. DOM started its upward march from 1993-94 and continued till 2002-03. However, it fell marginally thereafter to reach at the level of Rs.0.0058 crores

in 2004-05. The column further reveals a significant improvement in the CAGR of liberalization period (4.19 percent) from the CAGR of -0.72 percent belonging to the pre-liberalization period. However, a CAGR of 1.38 percent was noticed during overall period of the study.

Table 2. Profile of Capital Intensity, Capital-Output Ratio and Partial Productivity of Capital and Labour

Year	AOLR (In Rs.Cr.)	DOM (In Rs.Cr.)	COR	AOCR
1980-81	0.0104	0.0046	0.44	2.27
1981-82	0.0098	0.0044	0.45	2.22
1982-83	0.0097	0.0043	0.45	2.24
1983-84	0.0097	0.0043	0.45	2.23
1984-85	0.0091	0.0041	0.45	2.22
1985-86	0.0103	0.0040	0.39	2.59
1986-87	0.0104	0.0042	0.40	2.49
1987-88	0.0098	0.0041	0.41	2.41
1988-89	0.0097	0.0043	0.44	2.27
1989-90	0.0092	0.0042	0.45	2.20
1990-91	0.0096	0.0042	0.44	2.30
1991-92	0.0093	0.0040	0.43	2.31
1992-93	0.0137	0.0038	0.28	3.61
1993-94	0.0152	0.0039	0.26	3.89
1994-95	0.0166	0.0040	0.24	4.18
1995-96	0.0160	0.0040	0.25	3.95
1996-97	0.0177	0.0043	0.25	4.07
1997-98	0.0193	0.0048	0.25	4.06
1998-99	0.0159	0.0050	0.26	3.90
1999-00	0.0242	0.0052	0.21	4.67
2000-01	0.0249	0.0052	0.21	4.75
2001-02	0.0257	0.0054	0.21	4.80
2002-03	0.0313	0.0065	0.21	4.78
2003-04	0.0307	0.0061	0.20	5.06
2004-05	0.0304	0.0058	0.19	5.28
CAGRs:				
Preliberalization period	-0.54**	-0.72*	-0.29**	0.24**
Liberalization period	8.47*	4.19*	-3.99*	4.17*
Overall Period	5.76*	1.38*	-4.12*	4.32*

Source: calculated from the data supplied by directorate of industries, Punjab.

Note: *significant at 5 percent level of significance. ** Insignificant at 5 percent level of significance

Terms used: a). DOM: Degree of Mechanization (capital intensity):- It is fixed capital at constant prices per employee; b). COR: Capital output Ratio:-It is ratio of total fixed capital to total production (both deflated); c). AOCR:- Average output capital ratio (Capital Productivity):- It is ratio of total production to total fixed capital (both deflated); d). AOLR: - Average Output Labour Ratio (Labour Productivity):- It is total production of constant prices per employee.

CAPITAL OUTPUT RATIO (COR): The profile of annual growth rates of capital output ratio as charted in column IV of table 2 demonstrates healthy pattern. The capital output ratio which was 0.44 in 1980-81 reached the same level in 1990-91 after experiencing same fluctuations. Thereafter it declined continuously, barring a period of 1995-99 during which it was stable at the level of 0.25 and then it marginally rose to the level of 0.26 in 1998-99. The distinctive feature of the profile of capital output ratio is that it observed complete stagnation at two occasions, firstly at the level of 0.25 during the period 1995-98 and secondly at the level of 0.21 during the period 1999-2003. The column also explains that the CAGR observed during pre-liberalization period was -0.29 percent and detected at the level of -3.99 percent in the liberalization period. However, the CAGR of -4.12 percent was observed during the overall period of the study.

CAPITAL PRODUCTIVITY (AOCR): The column V of table 2 sketches the profile of labour productivity which shows visible improvement. The labour productivity which was 2.27 in the year 1980-81, went down to the level of 2.20 in the year 1989-90 after experiencing fluctuations. Thereafter it moved up continuously till 1994-95 to touch the level of 4.18. The period 1995-99 recorded fluctuations and the upward journey restarted in 1999-00 which lasted till 2004-05. The labour productivity which was 4.67 in 1999-00 embarked on a peak of 5.28 in the year 2004-05. The column further reveals that the CAGR which was 0.24 for the pre-liberalization period cheered up during the liberalization period to reach the level of 4.17. However, a CAGR of 4.32 was observed for overall period of the study.

7. SWOT ANALYSIS OF RUBBER & PLASTIC PRODUCTS INDUSTRY

SWOT analysis is a basic, straight forward model that provides direction and serves as a basis for development of marketing plans. It accomplishes this by assessing an organization's strengths, weaknesses, opportunities and threats. It is an important step in planning. The role of SWOT analysis is to take information from environment and separates it into internal issues (strengths & weaknesses) and external issues (opportunities and threats). Once this is completed, SWOT analysis determines if the information indicates something, that will assist the firm in accomplishing its objectives or if it indicates an obstacle that must be overcome or minimized to achieve desired results (Ferrel, Lucas and Luck, 1998).

STRENGTHS: A firm's strengths are its resources and capabilities that can be used as basis of developing a competitive advantage. In the strength analysis, we are going to examine what advantages the rubber and plastic products industry has over its counterparts. The following points highlight the strengths of the rubber and plastic industry of Punjab:

- Easy availability of cheap migrant labour.
- Increasing domestic market having demands from both low and high end sectors
- Small scale sector derive the benefits of simpler management structures.
- Greater locational flexibility.
- Raw material component resources available within the country.

- Declining capital output ratio especially during liberalisation period provides a promising outlook for the future.
- Marked improvement in labour and capital productivities provides a strong impetus to growth.

WEAKNESSES: Weaknesses are those areas in which the existing rubber and plastic product industry do not perform well. The absence of certain strengths may be viewed as weaknesses. Following points highlight the weaknesses of the rubber and plastic industry of Punjab:

- No raw material base in the state leading to dependence on outside sources
- Insufficient process technology.
- Uneconomic size of plants.
- Unfair international competition owing to the practice of dumping.
- Legacy of past policies of industrialization.
- Irregular and erratic power supply
- Instability in the prices of raw material
- Lack of standardization and quality control
- Absence of R & D culture.
- Lack of Sophisticated marketing sense.
- Lack of synergies between Government Institutions and practical market.

OPPORTUNITIES: The external environment analysis may reveal chances for profits and growth, known as opportunities. Opportunities are those factors that have the potential to make the business stronger, more enduring and profitable. The following points highlight the opportunities available to the rubber and plastic products industry:

- Punjab being a part of national freight corridor scheme can boost the industry to expand their business.
- R & D and reverse engineering.
- Sunrise areas of Information Technology and ITES can be tapped to enhance efficiency.
- Markets of developed countries are also opening up.

THREATS: Changes in the external environment may present threats to an industry. Threats can be treated as those factors that have the potential to adversely affect the rubber and plastic industry of Punjab. The following points highlight the threats to the rubber and plastic product industry in Punjab:

- Increased competition owing to dismantling of quantities restrictions under WTO
- High tariff levels on most of the raw material items, when compared with other competing nations.
- Vulnerability to fast changes in technology from large business house.
- Changing consumer needs.

8. CONCLUSION AND FINDINGS OF THE STUDY

The conclusion that emanates from the entire discussion is that despite the problem of militancy in the pre-liberalization period, significant growth rate was

observed in all the four variables namely numbers of units, employment, fixed investment and value of production. But the policies of the liberalized regime have not remained benign to the growth of the small scale rubber and plastic industry of Punjab. While, significant growth was envisaged in fixed investment and production but a dismal and insignificant growth was witnessed in number of units and direct employment during liberalization period. However, in the overall period of the study, significant growth rate was registered in all the four variables. Thus it could be safely inferred from the analysis that the liberalization has promoted the use of capital intensive and labour saving techniques of production leading to very poor growth of employment. It has also facilitated the elimination of unviable production units.

The profile of labour and capital productivity indicates that in absolute terms partial productivities of labour and capital has gone up significantly whereas the capital output ratio has fallen miserably and capital intensity depicted very little improvement during the overall period of the study. The comparative profile of pre liberalisation and liberalisation period revealed that during liberalisation period productivities of labour and capital and capital intensity have improved significantly whereas capital output ratio has decelerated significantly.

Even the SWOT analysis of the rubber and plastic products industry of Punjab highlights numerous challenges as well as opportunities for the industry. The industry is facing a tremendous amount of competition from big domestic and foreign producers. Fiscal incentives provided by some neighbouring states coupled with unfavourable and irresponsible approach of the state administration are forcing the industry to relocate their businesses. The need of the hour is that the state administration puts in place a health, congenial and investment friendly policy and regulatory framework, so that the small scale sector in general and the rubber and plastic industry in particular can flourish in the fast changing competitive and globalised business environment.

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FORECASTING EXPORTS OF INDUSTRIAL GOODS FROM PUNJAB - AN APPLICATION OF UNIVARIATE ARIMA MODEL

GULSHAN KUMAR, SANJEEV GUPTA *

ABSTRACT: *The present study is an attempt to build a Univariate time series model to forecast the exports of industrial goods from Punjab for ensuing decade till 2020. The study employs Box-Jenkin's methodology of building ARIMA (Autoregressive Integrated Moving Average) model to achieve various objectives of study. Annual time series data for exports of industrial products have been culled from Directorate of Industries, Punjab for the period 1974-75 to 2007-08. Different selected models were tested by various diagnostic tests to ensure the accuracy of obtained results. The results revealed that during the days to come, exports of industrial products from Punjab are going to experience a sharp decline in growth as compared to past three decades in which growth maintained two digit level. In light of the forecasts, concerted efforts on the part of Government, entrepreneurs, industrialists, farmers and producers are the need of the hour to establish a healthy state economy and its export sector.*

KEY WORDS: *ARIMA; Forecasting; Box-Jenkin Method; Akaike Information Criteria; Schwarz Bayesian Information Criteria*

JEL CLASSIFICATION: C53

1. INTRODUCTION

The development literature abounds with the models of export-led growth, and it is claimed both historically and in the contemporary world economy that growth of exports can be taken as engine of growth (Thirlwall, 1994, p.364). In the present era of globalisation and liberalised policy regime, export promotion strategies occupy the central stage. Although, the trade policy is the jurisdiction of central government, the role of state governments is no less significant because export production is a local activity which is highly influenced by the activities and policies of state government.

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Thus, concerted and planned efforts are required not only at country level as a whole but also at State levels to push up the growth of exports (Nanda & Raikhy, 2000, p.266). Punjab is performing well (even more than all India growth of exports) as export of industrial goods is concerned, still potential is there to perform better (Kumar & Gupta, 2007, p.77). The export of Industrial products from Punjab was amounted just Rs. 62.95 crore in 1974-75 but soared high to Rs. 11267.04 crore by 2007-08 (see Table 1).

Table 1. Growth of Exports

Year	Exports (Rs. Crore)	Year	Exports (Rs. Crore)
1974-75	62.95	91-92	900.81
75-76	75.63	92-93	1214.77
76-77	90.13	93-94	1815.47
77-78	93.85	94-95	2082.3
78-79	106.2	95-96	2564.61
79-80	125.45	96-97	3641.01
80-81	162.13	97-98	4204.78
81-82	234.76	98-99	3629.13
82-83	228.71	99-2000	4062.62
83-84	197.19	2000-01	4014.96
84-85	203.57	2001-02	4407.9
85-86	245.2	2002-03	7013.51
86-87	274.83	2003-04	8933.31
87-88	341.66	2004-05	7914.35
88-89	466	2005-06	9655.91
89-90	647.65	2006-07	11797.68
90-91	769.2	2007-08	11267.04
Compound Annual Growth Rates			
1974-75 to 91-92		15.64*	
1991-92 to 2007-08		16.32*	
1974-75 to 2007-08		18.72*	

Source: 1. Directorate of Industries, Punjab. 2. Author's calculations based on the data supplied by Directorate of Industries, Punjab.

Note: * Significant at 5 percent level of significance.

The growth of exports is also very impressive as 18.72 percent during 1974-2008 as exhibited in this table. Even then, future is uncertain and nothing can be stated confidently about the ensuing years. Keeping in view all this, there arises an urgent need to make concerted efforts to unveil the future and take timely decisions. Hence, the present study is an attempt to build a Univariate time series model to forecast the exports of industrial products from Punjab for the ensuing decade i.e. till 2020, by applying Box-Jenkin's methodology of building ARIMA (Autoregressive Integrated Moving Average) model.

2. OBJECTIVES OF THE STUDY

Present study has been conducted keeping in mind the following objectives:

1. To generate forecasts of exports of industrial goods from Punjab
2. To suggest suitable forecasting ARIMA model for generation of forecasts.
3. To examine the growth of exports from Punjab.

3. DATA BASE AND ANALYTICAL FRAMEWORK

Present study is based on secondary data for the period 1974-75 to 2007-08. The aggregate data relating to the exports of industrial goods from Punjab (A State in India) were culled from Directorate of Industries, Punjab (A govt. department engaged in collection of data). The forecasts of the above mentioned variable for a lead time of 12 years were generated by applying Box-Jenkins' ARIMA method with the help of statistical software SPSS (version 7.5). One of the advantages of Box-Jenkins over other forecasting models is that this modelling is not based on economic theory and capable of capturing slightest variation in the data. Box-Jenkins methodology rests on the simplifying assumption that the process which has generated a single time series, is the stationary process but unfortunately most time series encountered are rarely stationary, still it is possible to transform them to stationary by the appropriate level of differencing (maximum up to second level). The degree of differencing transforms a non-stationary series into a stationary one. If non-stationary is added to a mixed ARIMA model, then the general ARIMA (p, d, q) is obtained, it has the form as under:

$$\Phi P(B) (1-B)^d Y_t = C + \theta q (B) \epsilon_t \quad (1.1)$$

or

$$\Phi P(B) W_t = C + \theta q (B) \epsilon_t \quad (1.2)$$

which will be non-stationary unless $d=0$.

The model is said to be of the order (p, d, q), where p, d and q are usually 0, 1 or 2 (Makridakis, 1998, p.345). Having tentatively identified one or more models that seem likely to provide parsimonious and statistically adequate representation of available data, the next step is to estimate the values of the parameters. Sum of squares of the residuals were computed by using maximum likelihood estimation method given the respective initial estimates of the parameters, optimum values of the parameters were searched by improving the initial estimates iteratively by supplementing them with the information contained in the time series. For a given model involving k parameters, the iterative procedure was continued till the difference between successive values of sum of squared residuals became so small that could be ignored for practical considerations (Box, Jenkins & Reinsel, 1994, p.225).

In order to make an assessment of the validity of the estimated models for the given time series, following certain diagnostic measures were worked out:

(a) Autocorrelations and partial autocorrelation of residuals: The autocorrelation coefficient was worked out by applying formula:

$$r_k(e) = \frac{\sum_{t=1}^{n-k} e_t \cdot e_{t+k}}{\sum_{t=1}^n e_t^2}; k=1,2,\dots,1 \quad (2.1)$$

The major concern of ACF of residuals was that whether the residuals were systematically distributed across the series or they contain some serial dependency. Acceptance of the hypotheses of serial dependency concludes that the estimated ARIMA model is inadequate.

And partial autocorrelation were worked out as under:

The sample partial autocorrelation coefficients Φ_{11} , Φ_{22} ... Φ_{kk} were estimated with the help of following equation :

$$\Phi_{kk} = \frac{\Lambda_{rk} - \sum_{j=1}^{k-1} \Phi_{k-1,j} \Lambda_{rk-j}}{1 - \sum_{j=1}^{k-1} \Phi_{k-1,j} \Lambda_{rj}} \quad (k = 2,3,\dots)$$

where

$$\Phi_{kj} = \Lambda_{\Phi_{k-1,j}} - \Phi_{kk} \Lambda_{\Phi_{k-1,k-j}} \quad (k = 3,4,\dots, j = 1,2,\dots, k-1) \quad (2.2)$$

Again, the Φ_{kk} verses the lag k could be displayed graphically so as to get sample partial auto correlation coefficient (also known as partial autocorrelogram) (O' Donovan, (1983), p.82: Gupta, 2003, p.44) to compute 95 percent confidence interval for partial autocorrelogram.

(b) Portmanteau Test: Ljung-Box Q statistics was computed from the model's residuals by using

$$Q = n(n+2) \sum_{\ell} r_{\ell}(e)^2 / (n-k) - 1 \quad (3)$$

Non-significance of portmanteau test was taken to imply the generated residuals could be considered a white noise, thereby indicating the adequacy of estimated model.

(c) Sum of Squares of Error (SSE): Sum of squares of the errors of fitted models was computed. We selected that model adequate, in case of which sum of square of errors was minimum.

(d) Akaike Information Criteria (AIC): AIC was computed to determine both how well the model fits the observed series, and the number of parameter used in the fit. We compared the value AIC with other fitted model to the same data set and we selected that fitted model adequate in case of which AIC was minimum. The AIC is computed as under:

$$AIC = n \log (SSE) + 2k \tag{5}$$

where

k = Number of parameters that are fitted in the model

log = Natural logarithm

n = Number of observations in the series

SSE = Sum of Squared Errors

(e) Schwarz Bayesian Information Criteria (SBC): SBC is a modification to AIC; it is based on Bayesian consideration. Like AIC it was computed to determine how well the model fits amongst the competing models, and we selected that model adequate in case of SBC was minimum. The SBC is as under:

$$SBC = n \log (SSE) + k \log (n) \tag{6}$$

(f) Karl Pearson's correlation coefficient: The bivariate correlation tells the degree of correlation between the trend values generated by various fitted ARIMA models with the original data for the variable and the significance of correlation coefficients is tested by applying t-test.

Forecasting: For making forecasts equation (1.2) was unscrambled to express Y_t and e_t by using the relation $W_t = (1-B)^d Y_t$. Given the data up to time t the

Optimal forecasts of $Y_{t+\ell}$ [designated by $Y_t(\ell)$] made a time t was taken as conditional expectation of $Y_{t+\ell}$, where t , is the forecast origin and ℓ is the forecast lead-time. Error term e_t completely disappeared once we made forecasts more than q period ahead. Thus for $\ell > q$, then ℓ period ahead forecast was made as under:

$$Y_{t+\ell} = C + \Phi_1 Y_{t+\ell-1} + \dots + \Phi_p Y_{t+\ell-p} \tag{7}$$

(Gupta, 2003, p.47-49; Bashier & Bataineh, 2007, p.2)

4. RESULTS AND DISCUSSION

The results have been discussed in brief under the following sub-heads:

4.1. Stationarity

The application of Box-Jenkins methodology in building an ARIMA model requires that the series is stationary. Therefore, the process starts with testing the series

for stationarity using the plot diagrams, correlogram etc. In order to confirm the mean stationarity and to calculate appropriate level of differencing, the graphical presentation of original series, test of correlogram and Ljung Box Q-statistics were exercised (figures and results for the original series are not shown here for the cause of simplicity and brevity). All the tests confirmed that after the first differencing, ($d=1$) the variable achieved stationarity.

4.2. Model Identification

Present study has adopted all possible eight basic ARIMA models depending on the values of p, d, q as p and q can adopt any value out of 0,1,2. Models are: $\{(1,d,0), (2,d,0), (0,d,1), (1,d,1), (2,d,2), (0,d,2), (1,d,2), (2,d,1)\}$. Here, for all the eight models the value of 'd' has remained 1.

Table 2. Initial estimate of the Parameters

Model	Parameters	Exports
ARIMA (1,d,0)	C	391.3845
	AR1	0.2250
ARIMA (0,d,1)	C	381.4163
	MA1	-0.5920
ARIMA (1,d,1)	C	441.7689
	AR1	0.8988
	MA1	0.7479
ARIMA (2,d,2)	C	404.3551
	AR1	0.4725
	AR2	0.4053
	MA1	0.0273
	MA2	0.6825
ARIMA (0,d,2)	C	364.5756
	MA1	-0.4288
	MA2	0.2541
ARIMA (1,d,2)	C	366.4387
	AR1	-0.1819
	MA1	-0.5786
	MA2	0.1732
ARIMA (2,d,0)	C	370.1460
	AR1	0.2409
	AR2	-0.2480
ARIMA (2,d,1)	C	351.4024
	AR1	-0.3181
	AR2	-0.3746
	MA1	-0.6787

Source: Author's calculations based on the data supplied by Directorate of Industries, Punjab.

Note: In all cases, $d=1$

Estimation of different Ordered ARIMA models: As discussed earlier, in order to make choice for suitable forecasting models, ARIMA process of the order (1,2,0), (2,2,0), (0,2,1), (1,2,1), (2,2,2), (0,2,2), (1,2,2), (2,2,1) were estimated. For

estimating parameters of selected models, we have started with some initial values of C, AR1, AR2, MA1, MA2 for different ordered models as exhibited in Table 2.

4.3 Diagnostic Checking

Once the ARIMA models are identified, then the tests of suitability of the selected model are used and accordingly the analysis of each model is carried out. Table 3 shows comparative results from various models. A model is selected on the basis if it possesses minimum sum of squares of residuals, minimum value of standard error, minimum AIC value, minimum value of SBC, and minimum value of non-significant Box-Ljung Q statistics and high correlation coefficient.. Alternative models for each variable were examined comparing the values of these parameters. Only that model has been selected which satisfied maximum number of above mentioned criterion.

Values of the above mentioned criteria computed from the different ordered ARIMA models have been presented in Table 3. Almost in all the cases for different order ARIMA models, correlogram of residuals showed no serial dependency (All correlogram for residuals are not shown here as the number of figures was large, only correlogram for the optimal model has been presented in Fig. 1 and Fig. 2).

Table 3. Comparative Results from Various Models

Variable	Estimate	ARIMA (1,d,0)	ARIMA (0,d,1)	ARIMA (1,d,1)	ARIMA (2,d,2)	ARIMA (0,d,2)	ARIMA (1,d,2)	ARIMA (2,d,0)	ARIMA (2,d,1)
Exports	Sum of Squares	16986009	15498725	16564090	14359045.5	14318561	14265615.8	16155105.9	13400204.3
	Standard error	764.68545	725.9833	766.18721	736.68404	708.96391	720.66766	757.56583	694.49034
	AIC	501.66962	498.80732	502.95878	502.76642	498.43736	500.41281	502.19043	498.43423
	SBC	504.5376	501.67529	507.26075	509.93635	502.71932	506.14876	506.49239	504.17018
	Q	11.972	12.26	11.197	10.197	9.237	8.791	11.261	7.564
	r	0.858	0.85	0.894	0.894	0.847	0.848	0.851	0.845

Note: In all cases, d=1

Source: Author's calculations based on the data supplied by Directorate of Industries, Punjab.

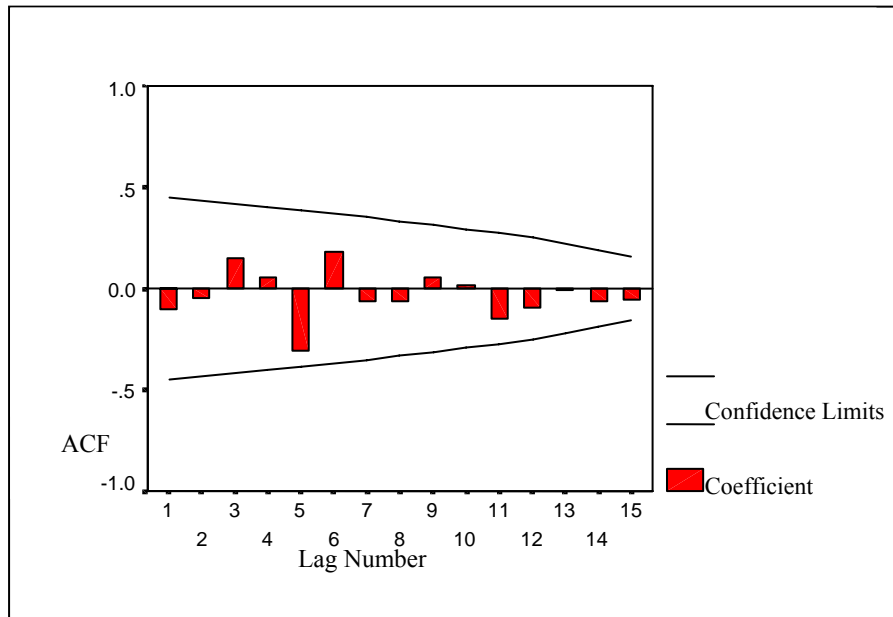


Figure 1. Exports (ACF), (Q= 7.564)

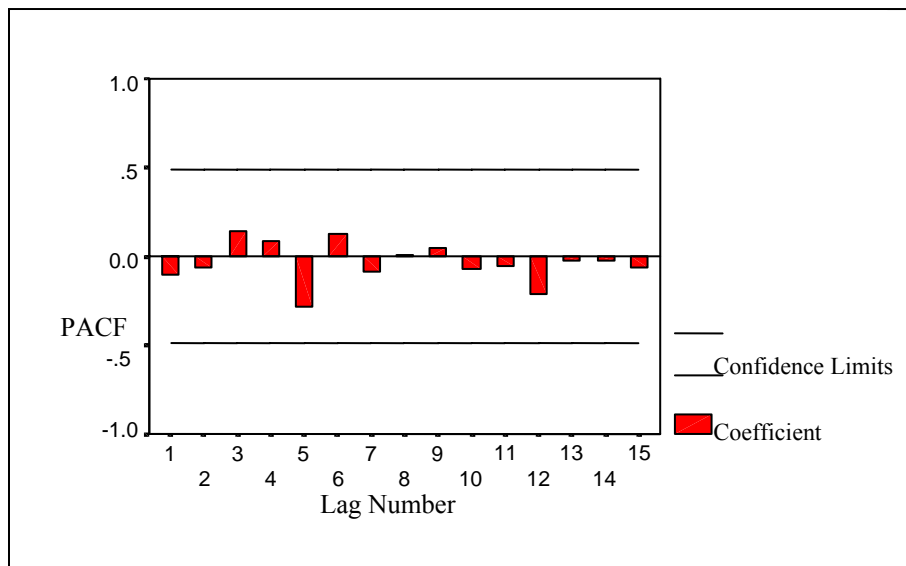


Figure 2. Exports (PACF)

Table 3 depicts the values of all the parameters for the variable - exports. Examination of Table 3 has revealed the basis for optimum model (based on satisfaction of maximum number of criterion by a particular model). It is observed that the model (2,d,1) is optimal for the variable exports. This model contains least SSE (13400204.3), minimum standard error (694.49034), minimum AIC (498.43423),

lowest Q (7.564). Moreover r is very high in this case although not highest. Moreover Fig.1 clearly indicates that autocorrelation coefficients individually as well as a group showed no pattern and were lying with in lower and upper limits for residuals indicating insignificance of residuals. Same is the case with partial autocorrelation coefficients shown in Fig.2. So this model satisfied maximum no. of criterion hence can be treated optimal.

Table 4. Optimum Model for Forecasting

Variable	Exports
Optimum Model	ARIMA(2,d,1)
C	351.40239
AR1	-0.31808
AR2	-0.37458
MA1	-0.67872
MA2	
AIC	498.43423
SBC	504.17018
Q	7.564
r	0.845

Note: Here, d=1

Source: Author's calculations based on the data supplied by Directorate of Industries, Punjab.

Perusal of table 4 clearly indicates that ARIMA model (2,d,1) which keeps constant c (351.40239), autoregressive AR1 and AR2 as -0.31808 and -0.37458 respectively. Moving average MA1 (-0.67872) and AIC equal to 498.43423 and SBC being 504.17018, is the optimal one because of satisfying maximum no. of criterion.

5. FORECASTS

Future is highly uncertain but most people view the future as consisting of a large number of alternatives. Future research or forecasting is the best way of examining the different alternatives, identifying the most probable ones and thus reducing the uncertainty to the least. Forecasting is the best designed tool to help decision making and planning in the present (Walonick; 1993). After extracting the optimum model for generation of forecasts, the next step is to prepare forecasts of exports of industrial goods from Punjab. Table 5 keeps all the details of forecasted figures.

Perusal of Table 5 revealed that in the year 2008-09, the forecasted figure of exports is 11228.36 Rs. crore expected to rise to Rs. crore 12567.87 in 2011-12 and to Rs. crore 14032.62 in 2015-16 and finally expected to be Rs. crore 15448.53 by the year 2019-20. As far as compound annual growth rate (CAGR) is concerned, it is expected to be just 2.73. As this growth figure is much less than the growth of exports depicted in table 1 for the previous decades. Situation is quite alarming and timely efforts are need of the hour.

Table 5. Forecasts on the basis of Optimum Model

Year	Exports(Rs. Crore)
2008-09	11228.36
2009-10	12034.24
2010-11	12387.20
2011-12	12567.87
2012-13	12972.99
2013-14	13371.26
2014-15	13687.63
2015-16	14032.62
2016-17	14399.19
2017-18	14748.17
2018-19	15094.66
2019-20	15448.53
CAGR:	2.73*

Source: Author's calculations based on the data supplied by Directorate of Industries, Punjab.

Note: * Significant at 5 percent level of significance

6. CONCLUSION

Punjab is basically an agricultural state but it keeps proud place in industrial map of India especially the small scale industrial sector. The Auto Regressive Integrated Moving Average (ARIMA) model through Box-Jenkins approach has been used to generate forecasts regarding export of industrial goods from Punjab. The forecasts have depicted not a very bright picture ahead. These forecasts can provide Government and policy makers a direction to design policies accordingly to push up growth in this sector. The government (both state and union) must design supportive industrial policies for export oriented units in state. The emphasis should be given on R&D and quality improvement. The existing export oriented units should be strengthened. Block level export training and information centres should be established. Concerted efforts on the part of Government, entrepreneurs, industrialists, farmers and producers are the need of the hour to establish a healthy state economy and its export sector.

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DYNAMICS OF THE SHARE OF EDUCATION EXPENDITURES WITHIN ROMANIA'S GROSS DOMESTIC PRODUCT - ECONOMIC AND SOCIAL EFFECTS

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ABSTRACT: *The paper fundamentally starts from a generally accepted truth, namely the one stating that education is the basic foundation of social, cultural, and economic development, the guarantee of building a future when young generations are going to benefit from new abilities, knowledge, and ideals; its financing represents a key issue in accomplishing its long term mission in society. The hereby approach deals with an analysis of the evolution of education expenditures within Romania's gross domestic product which mainly determine the basic economic and social effects.*

KEY WORDS: *public education; private education; public expenditures; financing; State budget; subsidies; population; companies; evolution*

JEL CLASSIFICATION: *B21, B22, B41, I21, I22, I23, O11*

The development of education is done according to the demands of the various stages of economic and social development and to the equalizing of training and education conditions of all the members of society. Education is required to contribute to a greater extent to the general progress of society. The development and modernizing of education have determined the increase of the resources allocated to it in all countries, both developed and under development.

The amount of education expenditures differ not only from one country to another but also from individual to another; they are also able of giving an image both of a country's capacity of supporting the development of human capital and of the position human capital detains within long term development strategies. The fact that at an individual level education allocated expenditures are not sure and variable has determined the increase of the part played by the State and by governments in financing education, either entirely or partly. In Romania, education is free at all its

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levels and access to education is guaranteed by law to all persons irrespective of sex, nationality, religion or origin social and family environment. Nevertheless, it is quite clear that, under the circumstances of a precarious economic condition the existence of an education favourable legislation is in itself insufficient. Romania has entered, as other countries under development, a vicious circle: a poor level of development has as an effect the limitation of education investments, namely in human capital, and decreases labour quality and productivity, the main factors of economic growth.

Another aspect connected with **education financing** is that of expenditures distribution according to education levels. One can notice that the **total financing of primary and secondary education is more advantageous for society** than for the individual: a high level of alphabetization, the increase of the degree of the population's social and economic participation, improvement of the quality of family life and of health, etc. Accordingly, in a lot of countries primary and secondary education is free, the length of compulsory education being quite long.

Investments in higher education have a raised degree of efficiency more on an individual level than at the level of the society, especially due to the future increase of salaries, so that a large amount of higher education costs are paid by the individual. The decisions regarding the distribution of the expenditures according to education levels should nevertheless consider society's specific features.

In Romania, the distribution of education expenditures is an unequal one, higher education being favoured. The level of financing education and the manner of distributing financial resources affect the rate of school participation especially at secondary and higher levels. The importance of education - as an act of consciousness on whose quality depends not only the future welfare of a nation, but, at the same time, the power, influence, and even its existence as a distinct entity within regional and international configuration - is unanimously acknowledged by all environments.

The increase of public education expenditures is due to the simultaneous actions of several **factors**, namely:

- **Demographic factors.** The increase of population has obviously determined the increase of school population. The demographic boom that determined the increase of global population to more than 6 billion inhabitants could mainly be seen in the increase of school population, in the degree of inclusiveness of the educational system, and in the compulsory character of certain education levels. These facts have also determined an increased demand of didactic staff. The need of didactic staff has also increased as a result of improving the relation pupils - teachers.
- **Economic factors.** Economic development, the increase and diversification of fixed and working capital as a result of modernizing and improving technological processes required a labor having an average and superior qualification. This was done through growing education expenditures. These increased expenditures were connected with education organization, with the inner structure of the various levels of education, with the growth of the students' share within the total number of students and pupils. The need to modernize education, the increase of technical means, of the equipments required by the educational process, and their larger use as well as the increase of the level of prices and tariffs work in the same direction.

Education's financing possibilities, determined by the economic development of a country and by the increase of gross domestic product, may offer financial resources in supporting the development and modernization of education to a larger or to a smaller extent. The existence of other sources capable of covering such expenditures, different from the budget ones, also contributes to the supplementing of the public financial resources for education (Moldovan, 2009, p.36).

- **Social and political factors.** They regard school policy, its foundation, and the level of compulsory education, resources, facilities and support for school units or even for pupils, students and their families.

The financing of education expenditures is done out of various **sources**, namely: the State's budget, population's sources, companies, non-lucrative organizations, donations, external support.

The State's budget represents the main source of financing education, all over the world, a fact that shows the tremendous importance given to this field of social life.

The financing of education expenditures also differ according to the structure of the budget system. In certain countries, the main part in financing education units (except for higher education) is played by the states' budgets or local communities that use their own fiscal resources and also receive subsidies from the central or governmental budget (Austria, Great Britain, Sweden, Norway; in Germany, the lands finance 74% of the whole education expenditures). Yet, in all countries, higher education is financed by the central budget (except for Germany, where lands finance 88.7% of the expenditures with higher education).

In developed countries as well as in under development ones, there are two types of education units: *public*, financed by the budget, and *private*, which can be independent or partly financed by the State.

The private education units (primary and secondary) are founded, in most countries, according to confessional criteria (France, Italy, Austria). The number of the pupils that go to such schools is not very large; it represents 1.5% - 5% of the total number of pupils (except for France where during the school year 1993/1994, 17% of the total number of pupils went to the 9500 private schools of which over 5000 school units). Private education is controlled by the State and obeys official stipulations regarding didactic staff, its organizing, and examinations.

Higher education generally includes a reduced number of private institutions (in Sweden there is only one higher education institution, in the economic field, at Stockholm while in the Netherlands there are three private higher education institutions). Private education units mainly have as financing sources the school taxes owed by pupils and students, other incomes, donations, etc.; in case these incomes cover all expenditures, the unit "independently" functions; in case, in order to supplement its own incomes the school unit receives allocations from the budget, the unit is considered to be "subsidized".

In a lot of countries, the State budget allocates subsidies to private education: it either gives funds only for certain categories of expenditures (such as: the salaries of didactic staff or infrastructure expenditures covered by the State budget in Austria, The Netherlands, Ireland) or it gives more important subsidies (in Denmark, Finland, Spain,

France, Norway). There are also countries where private education does not get funds from the State budget at all (Greece, Italy, and Romania) (CNFIS, 2008).

The funds received from the budget are sometimes supplemented by the education units own incomes originating in scientific research activity, services in the field of permanent education, loans or other activities. Population directly takes part in education financing through school taxes and also makes other expenditures in order to support pupils and students outside school.

For instance, parents and families cover the pupils' and students' accommodation, transport or supplies expenditures, etc. A lot of countries give pupils text-books for free due to the fact that their prices are quite high; in the U.S.A., a high school text-book costs about 40 dollars. Developed countries admit, sometimes, that, although "public education is free until the end of compulsory school period, in fact, a lot of educational units must face supplemental expenditures and accordingly require the financial intervening of the pupils' parents". A lot of companies make education expenditures on the occasion of organizing professional training courses of their employees or of the future employees, specializations or grant scholarships to certain pupils or students.

Another financing source of education expenditures are *sponsorships, donations or other forms of support* that can be received by education units from companies, foundations, non-profit organizations. Certain countries are especially concerned with finding out new means of getting and using private funds. With this in view, let's notice the "American model" and the efforts made by quite a lot of countries in order to attract sponsors and donors through maintaining connections with former students (Germany, Japan), especially in higher education. This manner of benefitting from donations and sponsorships can become a viable alternative in case it is accompanied by fiscal measures of tax decreasing or exemption in case of the amounts meant to support education.

External support in the field of financing education is mainly encountered in under development countries and represents about 10% of the total amount of these countries' education expenditures; it is generally meant to put an end to analphabetism or to finance elementary education and to train personnel (especially for agriculture). External support is given as direct subsidies, loans, financing or refers to sending experts, didactic staff, technicians or even certain material resources required by education. In 1997, for instance, World Bank approved loans for 15 under development countries in order to implement programs in basic education, to improve girls' access in schools, to reform education, etc. Education budget expenditures are mainly distributed to the ministry that organizes and manages education (the Ministry of Education and Research); nevertheless funds having the same destination are to be found at other ministries too, such as: Defense Ministry (for military education), Marine Ministry, Internal Affairs Ministry (for police academies), Agriculture Ministry. Such expenditures are also financed by the budgets of administrative and territory units.

Another approach in analyzing education public expenditures regards their *economic content* or their character. According to this criterion, they can be classified in two groups as follows:

- *Current expenditures* that refer to the maintenance and functioning of educational units. They include expenditures made in order to buy goods and services which are used during the current year and are divided into: personnel expenditures (salaries and other personnel expenditures), material expenditures and services (maintenance and administration expenditures, books, transport, and repairs costs) and expenditures representing school subsidies and transfers (subsidies for education units, scholarships);
- *Capital (investments) expenditures* that regard the building of education units, their endowment with equipments (including buying lands for school buildings). Such expenditures are employed in order to acquire durable goods whose use lasts several years.

With regard to education public expenditures, there are certain facts of tremendous importance, namely: the financial planning of education expenditures, the determining of their yearly level, of the covering sources and especially of the manner of distributing and employing them. One may state that the most important element in carrying out an efficient activity in the educational system is not the amount of such expenditures but the **manner of their use**. In order to be able to analyze such aspects, it is necessary to settle the amount of the public expenditures required in order to carry out education's objectives, namely to determine education budget expenditures.

In order to do this, one should start from the education policy of the government and of other decisional organisms displayed by the existing programs and provisions. The ministries involved in elaborating "education's budget" draw out an estimation of the funds needed and display the global amount of education's public budget expenditures both in case of investments ("equipments budget") and in case of current expenditures ("functioning budget").

The sizing of such expenditures is done according to a series of specific elements regarding *school contingents* (children, pupils, students included in the education system during a specific year), *unitary cost* depending on education forms and units, *norms, standards* or *other financial instruments* with which certain categories of expenditures are fixed (scholarships, salaries, contributions); the *execution of education expenditures during the previous period* is also used as a guideline with a view to focus upon new elements and circumstances specific to the present period ("historic" budget).

Two principles having an impact upon financing too act in organizing higher education:

- *Equality of chance: all aspirants should have the chance of succeeding and all students should have the chance of graduating, irrespective of their ethnic, racial, religious, family status, etc.*
- *Equity: all students should benefit from similar effects determined by budget allocations.*

The **efficiency** of such expenditures can be displayed through highly synthetic indices, such as: the degree of school population inclusiveness, the number of students reported to 100 000 inhabitants, the average duration of school training, etc. Financial indices are also employed: the cost of professional training (the up-dated amount of

yearly school unitary costs), gross domestic product's increase or the national income reported to a cost monetary unit, etc.

One of the analyzed indices in evaluating the economic and social impact of higher education and of its expenditures is the participation to this type of education. The analysis of the data regarding Romania becomes much more significant within the context of displaying the data for all European countries in order to do comparisons.

Table 1. Population's participation in higher education

Country/Year	2000	2001	2002	2003	2004	2005	2006	2007
EU (27)	15920.8	16517.3	17139.3	17761.8	18232.9	18530.2	18782.5	18884.2
Belgium	355.7	359.3	367.0	374.7	386.1	389.5	394.4	393.7
Bulgaria	261.3	247.0	228.4	230.5	228.5	237.9	243.5	258.7
Czech Republic	253.7	260.0	284.5	287.0	318.9	336.3	337.4	362.6
Denmark	189.2	190.8	195.3	201.7	217.1	232.3	228.9	232.2
Germany	2054.8	2083.9	2159.7	2242.4	2330.5	2268.7	2289.5	2278.9
Estonia	53.6	57.8	60.6	63.6	65.7	67.8	68.3	68.8
Ireland	160.6	166.6	176.3	181.6	188.3	186.6	186.0	190.3
Greece	422.3	478.2	529.2	561.5	597.0	646.6	653.0	602.9
Spain	1829.0	1833.5	1832.8	1840.6	1839.9	1809.4	1789.3	1777.5
France	2015.3	2031.7	2029.2	2119.1	2160.3	2187.4	2201.2	2179.5
Italy	1770.0	1812.3	1854.2	1913.4	1986.5	2015.0	2029.0	2033.6
Cyprus	10.4	11.9	13.9	18.3	20.8	20.1	20.6	22.2
Leetonia	91.2	102.8	110.5	118.9	127.7	130.7	131.1	129.5
Lithuania	121.9	135.9	148.8	167.6	182.7	195.4	198.9	199.9
Luxembourg	2.4	2.5	3.0	3.1	:	:	2.7	:
Hungary	307.1	330.5	354.4	390.5	422.2	436.0	438.7	431.6
Malta	6.3	7.4	7.3	8.9	7.9	9.4	8.9	9.8
The Netherlands	487.6	504.0	516.8	526.8	543.4	565.0	579.6	590.1
Austria	261.2	264.7	223.7	229.8	238.5	244.4	253.1	261.0
Poland	1579.6	1775.0	1906.3	1983.4	2044.3	2118.1	2145.7	2146.9
Portugal	373.7	387.7	396.6	400.8	395.1	380.9	367.3	366.7
Romania	452.6	533.2	582.2	643.9	685.7	738.8	835.0	928.2
Slovenia	83.8	91.5	99.2	101.5	104.4	112.2	114.8	115.9
Slovakia	135.9	143.9	152.2	158.1	164.7	181.4	197.9	218.0
Finland	270.2	279.6	283.8	291.7	299.9	306.0	309.0	309.2
Sweden	346.9	358.0	382.9	414.7	429.6	426.7	422.6	413.7
Great Britain	2024.1	2067.3	2240.7	2287.8	2247.4	2287.5	2336.1	2362.8

Source: Eurostat

As we have already shown in this paper, international experience emphasized the fact that, in order to meet present demands, the financing of the system of public higher education has a mixed character:

- *Basic financing* out of budget allocations capable of supporting the free access to education, the quality and consistency of the educational process;
- *Supplemental financing* obtained by an institution owing to its own efforts and resources others than the State budget. Moreover, an important stage of the reform

process has been the change of financing according to budget chapters into the global financing of universities based on institutional contracts with the Ministry of Education, Research, Youth, and Sports.

This change represents a means of getting a better performance in education and research owing to a better management of financial resources. Accordingly, the level of financing public universities is going to be determined by performance and efficiency criteria. For instance, beginning with 1999, the manner of financing higher education has changed by implementing a methodology of distributing budget allocation based upon formulas (quantitative component) and founded on the fundamental principle stating that “resources follow the students”. Beginning with 2001, the methodology of distributing to universities budget allocations meant for basic financing is supplemented by a qualitative component continually up-dated during the period 2003-2007 (CNFIS, 2008).

Table 2. Evolution of basic financing in Romania during the period 1998-2007

		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Basic financing distributed according to formulas	Mil. lei	137	173	269	376	467	617	833	952	1 159	1 537
	Mil. Euro	137	106	135	145	149	164	205	263	327	439
Total basic financing	Mil. lei	137	174	270	380	477	633	847	1 041	1 175	1 560
	Mil. Euro	137	107	135	146	153	169	209	287	332	446
Gross Domestic Product	Mil. lei	37380	54573	80377	116769	151475	197565	246469	288048	342418	401287
	Mil. Euro	37 436	33 388	40 346	44 904	48 442	52 613	60 842	79 551	97 118	99 993
Share of BF within GDP		0.37%	0.32%	0.34%	0.32%	0.31%	0.31%	0.34%	0.33%	0.34%	0.38%
Total share of BF in GDP		0.37%	0.32%	0.34%	0.33%	0.32%	0.32%	0.34%	0.36%	0.34%	0.39%
Euro course (yearly average value)		0.999	1.630	1.996	2.603	3.126	3.756	4.053	3.623	3.540	3.50

Source: CNFIS

In case of the most recent years, out of the analysis of the data in view, the following facts can be displayed:

- The share of the funds allocated to education out of total GDP: 2006 - 4.79%, 2007 - 4.96%, 2008 - 6% (estimation), 2009 - 6% (estimation);
- The share of the funds allocated to higher education out of total GDP: 2006 - 0.67%, 2007 - 0.68%, 2008 - 0.8% (estimation);
- The share of the funds allocated for basic financing out of total GDP: 2006 - 0.34%, 2007 - 0.39%, 2008 - 0.4% (estimation).

The table below displays, according to Eurostat, the shares of the educational system expenditures within the total amount of public expenditures afferent to certain years.

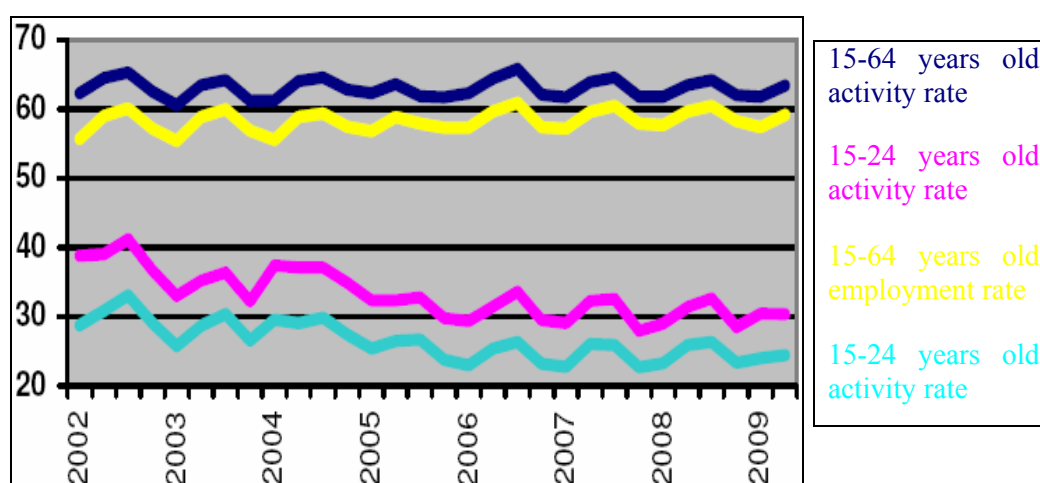
The main question that requires an answer is connected with the manner this category of public expenditures affected economy owing to employment increase, economic growth, and progress. **The resulting indices of the young persons' presence on labor market show the performance of educational system from the point of view of employment** (Vasile, et al., 2009, p.71).

Table 3. The share of education expenditures supported by central authorities

Country	Year							
	2000	2001	2002	2003	2004	2005	2006	2007
EU (27)	50.4	50.8	50.1	50.1	49.6	50.1	49.0	47.0
EU (25)	:	:	:	:	:	:	:	:
Euro area(15)	53.1	54.5	53.4	53.2	52.5	52.5	53.4	50.8
Euro area (13)	52.9	54.4	53.2	53.0	52.4	52.3	53.2	50.6
Belgium	4.2	17.1	18.5	17.6	17.8	18.0	18.3	19.8
Bulgaria	62.3	55.8	57.7	59.0	86.9	91.1	93.0	88.3
Czech Republic	82.1	30.6	29.1	30.2	30.9	30.4	34.8	34.0
Denmark	46.7	45.4	44.7	41.3	42.6	41.9	41.3	48.4
Germany	9.3	9.7	11.5	12.0	11.4	11.2	11.7	12.3
Estonia	55.7	62.2	63.3	63.9	65.3	66.8	71.2	71.2
Ireland	99.8	99.8	99.7	99.7	98.4	98.3	98.5	98.5
Greece	94.8	95.7	97.0	97.2	95.6	92.3	:	:
Spain	16.2	15.8	14.9	12.6	11.9	12.2	12.6	12.4
France	77.3	77.5	77.2	77.1	76.6	76.4	76.5	72.0
Italy	80.6	82.5	79.9	80.4	79.7	79.6	81.6	81.8
Cyprus	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Leetonia	31.4	30.8	29.4	28.1	27.8	31.3	32.6	30.4
Lithuania	30.6	37.9	38.8	35.2	35.3	36.8	36.9	38.8
Luxembourg	:	74.8	73.1	73.2	71.8	71.3	75.3	74.6
Hungary	72.5	74.1	70.4	73.2	72.1	70.1	69.6	68.4
Malta	100.0	100.0	100.0	100.0	100.0	100.0	:	:
The Netherlands	92.5	91.5	90.7	90.0	90.0	90.5	92.3	92.1
Austria	71.6	72.7	71.6	74.1	73.5	75.2	74.7	75.0
Poland	19.5	24.4	24.4	22.7	23.8	24.5	23.5	22.8
Portugal	94.6	95.1	94.7	94.4	93.5	93.9	93.6	93.9
Romania	87.0	30.7	34.5	36.0	33.6	34.1	:	38.7
Slovenia	:	82.5	81.5	81.7	82.3	82.9	82.1	83.1
Slovakia	99.9	99.8	99.6	100.0	81.2	81.1	75.8	78.0
Finland	56.0	56.9	57.0	56.6	55.9	55.7	56.5	56.1
Sweden	:	:	:	:	:	:	:	:
Great Britain	37.2	39.1	41.6	42.8	43.1	47.0	36.0	34.6

Source: Eurostat

The activity rate of the population ranging between 15 and 64 years old represented during the last 3 years about 63%, being higher among men and in the countryside (in 2008, the rate in case of men was 70.6%, of women 55.2%, in the countryside - 64.5%, and in the urban environment - 61.7%); employment rate represented about 59%, slowly increasing. As compared with Lisbon targets, the employment rate of the population capable of working, in 2008, places Romania at a 11 p.p. (70%) distance, and in case of women at 7.5p.p. (60% target) distance.



Source: Labour force in Romania - employment and unemployment - the 2nd trimester, 2009, INS

Figure 1. Activity rate and employment rate, 2002-2009

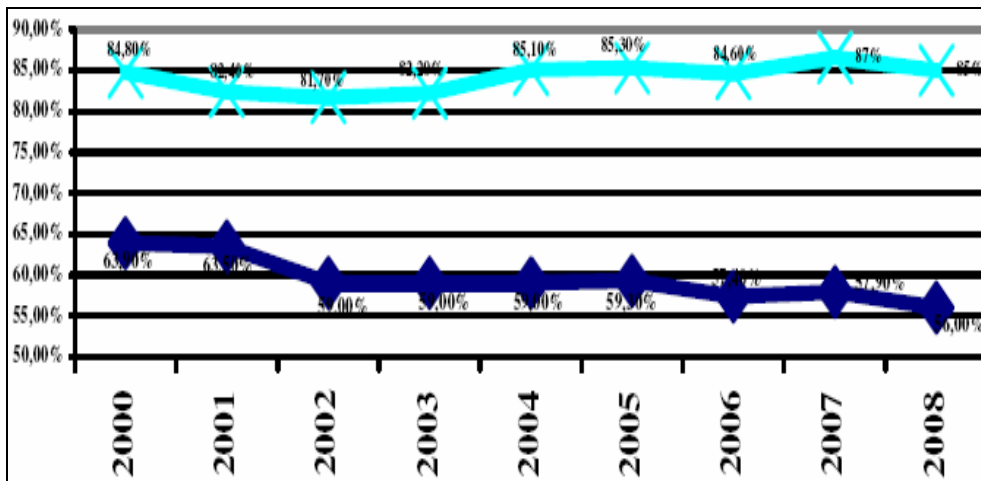
In case one analyzes the **rate of employment according to educational levels of the population ranging between 15 and 64 years old** a diminishing of the value of the index of those having average and high education can be noticed; consequently, labour market witnesses a loss of labour force quality due to the decreased contingents of young persons who enter labour market and to the international mobility of labour force. Regarding occupational fields, young persons ranging between 15 and 24 years old are mainly employed in constructions, trade, hotels and restaurants while those ranging between 25 and 34 years old in real estate transactions and trade. As an average, in 2007, 8.3% of the employed population ranged between 15 and 24 years old and 27.1% between 25 and 34 years old (in case of women, the rates are much smaller, namely 3.4% and 12.3%). In the same year, out of the total number of persons belonging to the age group 15-24 years old, 30.5% were active (24.4% employed and 6.1% unemployed persons) while out of the age group 25-34 years old, 78.3% were active (73.2%, namely, 5.1%).

Out of the total number of employed persons, young persons represented under 40%, namely 7.7% ranged from 15 to 24 years old and 30.8% ranged between 25 and 34 years old. Out of the total number of owners, 1% was up to 24 years old and 14.9% belonged to the category 25-34 years old. In case of those who were self-employed the distribution according to the two age groups was as follows: 4.7%, namely 17.4%; in case of unpaid family workers the figures are as follows: 18.4% and 23.2%.

In case one analyzes only the age group ranging between 15 and 24 years old according to levels of education, residence environments, and sexes, the following data emerge (Vasile, et al., 2009, p.72):

- The most decreased employment rates are registered in case of the young persons having a low level of education (secondary school - 14.9%, primary or without having graduated a school - 17.8%), but also in case of those having high school education (21.2%);
- The graduates of post high school and higher education register the highest employment rates (62.3%, namely 64.5%); accordingly, a positive evolution occurs.

As compared with the national mean of the employment rate of the population ranging between 15 and 64 years old, the rate of employment of higher education graduates is about 29 p.p. higher.



Note: Total, University

Source: Vasile, V. Et al. - *Improvement of professional skills among graduates and young persons: a chance for the future*, IER, 2009, p.76; The National Institute of Statistics - AMIGO Enquiry, 2001-2008

Figure 2. Employment rate of total population and employment rate of higher education graduates belonging to the category of 15-64 years old

Nevertheless, as regards the **insertion rate of higher education graduates**, it is more decreased when compared with the total number of young persons who are employed, especially after the first year after graduation, due to the fact that a faculty graduate is going to look for a job much longer and is more pretentious towards his work place, but also due to the legislation regarding the minimum salary on the economy; accordingly, it stipulates that employees are not motivated in employing higher education graduates as the level of the minimum salary is higher (twice until 2009 and 1.75 times beginning with 2010 as compared with the minimum for a unskilled worker).

Although the State gives fiscal facilities in order to employ young persons (for instance, the employer is going to get the minimum salary on the economy during 12 months), due to complementary conditions (including the obligation of remaining employed in the job at least 2 years) and to the increased mobility of young persons looking for a job matching their professional aspirations, the rate of those who resort to such facilities is quite small. As a tendency, **higher education graduates have an increased guarantee of their job on a long term.**

Another advantage is that, **when compared with the productivity determined after the integration in activity, they can be considered “relatively inexpensive” and, besides, more flexible and easily to be trained at their jobs.** Their major disadvantage is that when entering labour market they are seldom capable to start working effectively, requiring a training period at their work implying certain costs for the employee. As regards **registered unemployment**, one may notice that the rate is smaller among those with higher education (2.9% in 2007) and the highest among those with a poor educational level (7.1%). During crisis periods the rate of young unemployed persons increases (especially among men) (Eurostat); for instance, the rate of those having higher education attained about 4.6% in June 2009 (Eurostat).

CONCLUSIONS

The hereby analysis emphasizes the fact that, during the present period, higher education has passed through specific reforms; certain of them are still in development targeting its own objectives which deal with quality. The expected effects have been weak or adverse. Besides, the support of public authorities, including the financial one, was not sufficient. Education allocations, although they have increased during the last years, did not succeed in completely restructuring the system. Institutional framework suffered both due to labour market and to education market. **During the last decade, Romania has passed through a period favourable to the development of education and of the labour market reform.**

Under the circumstances of continuing the period of austerity budgets, two alternatives can be formulated for the near future of Romanian education:

- Romanian school should wait for economic recovery due to the fact that, at present, we live from loans. This alternative has its origin in the fetishist considering of the State budget as a source of financing education and in the refuse to conceive more flexible financial mechanisms, including the diversification of education's financing sources, the gathering of the effort of all who benefit from educational services;
- Educational reform and, particularly, higher education's reform should be promoted in order to determine change, despite State's poor financing.

In a society that lives according to the market economy or that irreversibly tends towards this type of economic structure, it is quite natural and moral that all those who benefit from education contribute, to a certain extent, to the covering of educational services. Education reform should especially be promoted nowadays, in the context of the slow process of transition in the field of economy and public administration.

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PRIVATE FUNDS FINANCING OF EUROPEAN HIGHER EDUCATION

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ABSTRACT: *Higher education plays an important part in the European society, creating knowledge applicable to society and economy, and generating the process of economic and social evolution. Higher education institutions in Europe try to modernize both at the level of the courses they offer and at the level of their acting manner; European states as well as the private agents involved try to find out new, improved means of coordinating and financing. Starting from this idea, we would like to carry out an analysis of the manner of financing European higher education out of private funds with a view to identify new financing sources.*

KEY WORDS: *financing; European education; private funds; school taxes; autonomy; private entities*

JEL CLASSIFICATION: *B21, B22, B41, I21, I22, I23, O11*

The recent reforms in many countries have tried to increase the autonomy of higher education institutions regarding the management of finances, and, especially, the gathering and use of private funds. As a rule, public higher education institutions are mainly financed out of public sources and to a small extent out of private funds. Nevertheless, a lot of countries have tried to vary their financing sources meant for the higher education systems.

There are about 4 000 higher education institutions with over 19 million students and about 1.5 million employees in Europe. Certain such universities are quoted among the best in the world, although, on the whole, educational potential is not entirely used. Curricula are not always up-dated; the number of young people who attend the courses of a higher education institution is not always large enough, etc. Most of the time, European institutions lack the needed management instruments and financing according to their ambitious objectives. The governments and higher

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education institutions try to provide adequate conditions for the university academic environment and for the activities carried out within it.

At the level of the 27 countries members of the European Union, expenditures according to families (of which school taxes and other taxes represent the largest part) have increased from 7% to 13% between 1999 and 2004. The most significant increase of this financing field have been noticed in France (from 2.5% to 9.7%), Italy (from 2% to 18%), and Leetonia (from 35% to 48%). In Bulgaria, Leetonia, Lithuania, and Poland, families' expenditures represented between a quarter and a half of the total funds allocated to higher education during the whole period considered.

The total amount of private funds originating in other sources has slightly increased between 1999 and 2004 in France, Italy, and Slovakia. In 2004, in Bulgaria, Ireland, Greece, Cyprus, Leetonia, Malta, and Austria they represented less than 3% of the total funds allocated to higher education, while in the Netherlands, Sweden, and United Kingdom they represented 10% or more, and in Hungary more than 15%. Irrespective of the present level of public financing in various countries, all political messages of the authorities in the field of education encourage new manners of financing higher education.

In about two thirds of the countries, higher education institutions are allowed to receive school taxes from the students registered for a first specialization. In Estonia, Leetonia, Lithuania, Hungary, and Romania this happens only in case of the students who are sponsored by the State (Măcriș, 2010, pp. 142-161).

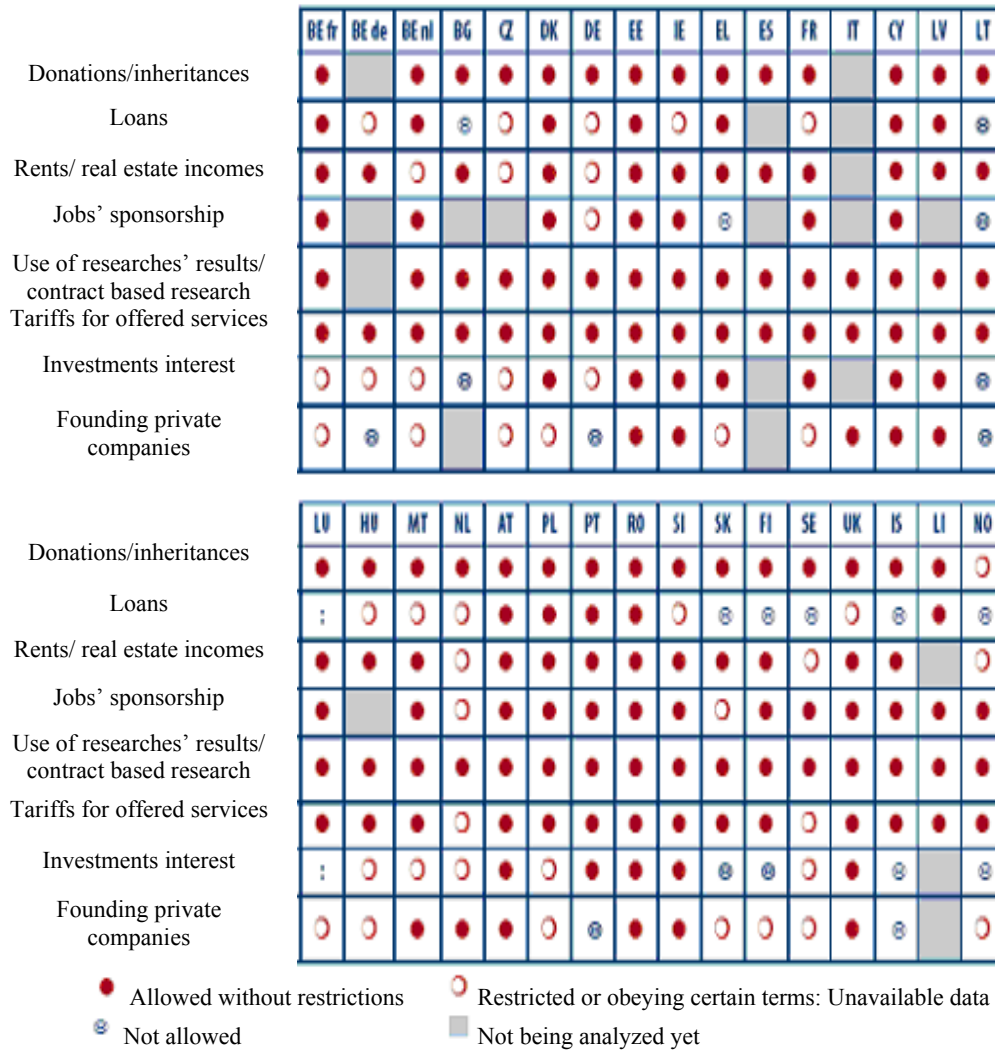
Within the French community in Belgium, in Bulgaria, Spain, France, The Netherlands, Austria, Slovakia, and United Kingdom (Scotland) the amount of school taxes is settled by the central authorities in the field of education. In other countries, where there are school taxes for a first specialization, higher education institutions can settle their amount within the margins defined by the same authorities.

In about ten countries, either there is no opportunity to receive school taxes or such a thing regards only certain part-time courses for the students who attend a second specialization, for the courses which are not included into the curriculum or in case a student has over passed the normal length of studies (eacea.ec.europa.eu/education.../o91RO.pdf)

Half of the countries that are allowed to perceive school taxes in case of full-time students for a first specialization may widely employ the school taxes paid by the students. This autonomy can be extremely significant in case families' expenditures which include supplemental elements beside the school taxes for a first specialization represent an important part of the resources of higher education institutions. This is the case of Bulgaria, Italy, and United Kingdom (England, Wales, and Northern Ireland).

The percent of the amounts coming from families represents about 20% in case of Italy and United Kingdom, and 40% in case of Bulgaria. In case of the other countries where institutions have autonomy regarding the use of school taxes, this source of income represented about 10% of the total amount or less, in 2004. In eight countries, according to national settlements, higher education institutions should allocate the school taxes perceived for full-time courses in case of a first specialization to those expenditures related with the fundamental educational goals or to the financial support given to the students.

In Lithuania, school taxes should be allocated to a financial program especially created by the institution which targets to implement the goals and aims settled by the statutes of higher education institutions. In Austria, the students choose the manner school taxes are allocated out of various opportunities proposed by the university senate.



Source: Eurydice

Figure 1. Sources of private funds available for public institutions and restrictions regarding funds' use

In two countries where families' expenditures ranged between 25% and 50% of the total funds received by higher education institutions in 2004, the resources had to be used according to the fundamental goals of the higher education institutions.

Hungary has adopted a similar approach beginning with 2008/2009 when the school taxes paid by the students have gradually increased.

There are various sources of privately financing (others than school taxes) higher education institutions. Nevertheless, institutions do not use all these sources either due to the fact that they are not allowed to do this or because not all sources are available at present.

While a few countries (Denmark, Ireland, Cyprus, Leetonia, Austria, Romania, United Kingdom) authorize all or almost all sources of private incomes and do not explicitly interdict a certain source, most of the countries impose restrictions regarding at least two sources. In a few countries, certain sources have not yet been explored or used and there are no official settlements regarding them. The higher education institutions in almost all countries can receive donations or inheritances from persons or private entities.

Beside such facts, the use of researches' results as well as of research contracts as mutual research projects between higher education institutions and private contractors undoubtedly represents the most usual source of private financing. Services such as: continual education for adults and mainly for companies, consultancy services and events organizing also represent a quite important source of private financing. This may also include medical services, for instance, ultra-specialized diagnosis services or rehabilitation services in Poland.

The taxes determined by health services cover about two thirds of the incomes of university hospitals in Germany. The incomes determined by loaning spaces or other facilities as well as those connected with propriety are supplemental income sources in a lot of countries. Higher education institutions are allowed to establish trade companies in all countries, except for Belgium (German community), Germany, Lithuania, Portugal, and Island. In Finland, beginning with 2006, universities may found companies; nevertheless such a thing has not happened yet.

Higher education institutions have the right to make loans in most countries. In the United Kingdom, almost all higher education institutions have the right to borrow money, although, due to the fact that they are governed by their own rules and not by the government's settlements, there are certain differences, from case to case.

Higher education institutions employ lots of borrowing methods, beginning with direct bank credits and ending with more sophisticated methods including all range of partnerships between the public and private fields. Another source of incomes to be encountered in a lot of countries is that of financial investments' interests. The higher education institutions in Bulgaria, Slovakia, Finland, Iceland, and Norway are explicitly not allowed to borrow or make financial investments. The same is the case of Sweden regarding borrowings.

Jobs' sponsorship (in case an analysis has been drawn out) is authorized in all countries, except for Greece, and Lithuania. This frequently happens in the United Kingdom; in Belgium (the French and Flemish communities) certain professors are sponsored by the business environment, although this does not occur frequently. The circumstances are similar in the Netherlands, Austria, and Finland. It is authorized in Norway, yet it rarely occurs. In Slovenia, the recruitment of researchers for companies

and co-financing young researchers are encouraged. Nevertheless, the practice of sponsorship does not seem to be quite wide spread.

The private financing sources that, most often, require, a previous agreement from the authorities in charge are: borrowings, investments, and companies' foundation. For most higher education institutions that actively look for private funds, partnerships with the private field represent an important basis of increasing financial possibilities. They prove to be quite valuable for research transfer and trade of academic research results.

Mutual research projects or required research seem to be the most common forms of cooperation and, as we have previously mentioned, they generally are the most important sources of public funds. In certain countries (Belgium – Francophone community, Czech Republic – ISCED 5A and Poland) they resort to certain prizes with a view to promote remarkable achievements in the field of research. Innovation parks and technological centers have been founded in partnership, and often in cooperation with the local or regional authorities, in several countries (Belgium – the Francophone and Flemish communities, Bulgaria, Czech Republic – ISCED 5A, France, Italy, Lithuania, Hungary, Poland, Portugal, Romania, Finland, Sweden, and Norway).

In Italy, partnerships between employers' associations and universities also include the sponsorship of master programs directed towards the objectives settled by the employers' associations as well as prizes for license projects that cover the associations' preoccupations. In Belgium (the Flemish community), doctoral research projects, especially in the field of engineering, can be carried out in cooperation with a company.

In Bulgaria, certain higher education institutions have settled, within their own structures, research units (or centers) where they conceive research projects which are subsequently addressed to the National Fund for Science. These centers do not get financial support from public authorities, except for a small amount to cover functioning costs. In case their research projects are promoted, the property incomes and rights that are part of the profitable character of the results go to those research centers.

In many countries, settlements have been changed during the last ten years in order to facilitate the collecting and use of private funds, with no limitations. Yet, a series of countries require certain general conditions to be met regarding private funds and partnerships; for instance, planned commercial activities should be correlated with the main mission and educational objectives of the institutions (Estonia, France, Luxembourg, The Netherlands, Poland, and Leetonia) or should observe the statute of public higher education institutions (Germany). In Denmark, France, Finland, and Norway this type of general condition is stipulated especially in order to found companies (eacea.ec.europa.eu/education.../o91RO.pdf).

In France, the goal of the companies founded by higher education institutions is the manufacturing, promoting, and trading goods and services according to the mission of the public services of higher education. This is also the case in Luxembourg (Truffin, 2006).

In The Netherlands, the external partner cannot provide the central part of higher education program; it is the exclusive responsibility of the higher education

institution. In Finland, universities may found companies in case they are obviously necessary for educational, research, and artistic services proving an important social impact. In Norway we deal with similar circumstances.

In a lot of cases, higher education institutions should also obey certain more specific requirements regarding the getting of private funds; restrictions as to the types of funds allowed may exist. Getting loans is restricted in Belgium (the German community), the Czech Republic, Germany, Ireland, France, Hungary, Malta, The Netherlands, Slovenia, and the United Kingdom. In these countries higher education institutions should, as a rule, observe certain procedures and they often need the agreement of the ministry before asking for loans (Măcriș, 2010, pp. 142-161).

In Malta, the loaning of an amount higher than 30 000 pounds (namely, 69 730 Euro) requires the written agreement of the Ministry of Education. In The Netherlands, transactions can be done only with accredited financial institutions. In order to get loans, higher education institutions in the United Kingdom should observe all terms agreed with the financing organism. Nevertheless, although these conditions are met, neither the government nor the financing organism guarantees for the higher education institution. As regards investments, there are restrictions too, in Belgium (the German and Flemish communities), the Czech Republic, Hungary, Malta, The Netherlands, Poland, and Sweden.

In Belgium (the francophone and Flemish communities), higher education institutions are not allowed to do direct financial investments. Yet, they can found a financing company in cooperation with a private financial institution with a view to financially invest in derived companies.

In the Czech Republic, public higher education institutions are not allowed to place real estate goods, subsidies or public grants in companies or cooperatives.

In Hungary and Poland, higher education units are allowed to invest their surplus only in State obligations; yet, they are not allowed to invest on the stock exchange. In Sweden, higher education institutions may not get a profit out of private financing. Consequently, they allow only those investments connected with the main activities of the institution. Other specific restrictions are applied upon real estate incomes, jobs' sponsorship, and tariffs of offered services.

In Belgium (the Flemish community), the money got from renting real estate goods should be used with a view to maintain the buildings and to do capital investments in buildings. In Norway, higher education institutions can offer real estate goods for rent; yet, this cannot be done in the detriment of the usual institutional activities.

In Slovakia, jobs' sponsorship is based upon an agreement that stipulates the terms of both juridical persons (the company and the higher education institution). In Sweden, as regards the providing of continual education services, it is not allowed to perceive taxes from the students. Nevertheless, companies and organizations may pay for certain required courses. In The Netherlands, the cooperation between universities and university hospitals should be based upon a previous agreement which mentions the responsibilities regarding the financing and the staff. In case of founding companies, a lot of countries require specific conditions.

In Belgium (the francophone and Flemish communities), the higher education institution's participation in a derived company should be based upon an agreement drawn out with the management of the institution which guarantees the remuneration of its financial contributions as well as of other type of contributions. Similar protection measures are also stipulated by legislation regarding the participation of higher education institutions in innovation centers and research parks.

In Czech Republic, they need the previous agreement of the administration council of the higher education institution before founding separate juridical persons. Public higher education units are not allowed to offer guarantees for the financial debts of other entities or to exert the pledge right through real estate properties. They may not become partners of public corporations or general partners in limited partnerships.

Private sources undoubtedly contribute to establishing connections between education and society. Accordingly, certain authors consider that the partnerships with the private field should include, among other things, the following: the participation of all the fields of economy in the programs of fundamental and applied research of higher education institutions; courses teaching in higher education institutions by private field specialists; financing projects in exchange of patents and author's rights; mutual use of scientific and technological infra-structures and accelerating transfer processes; financial benefits for private companies according to the number of students employed (Escotet, 2006, p.27).

This last aspect involves the remuneration of higher education by those who get benefits from it. The aspect's basic idea is that companies should contribute to the education of their own labor through financing higher education, including through fiscal measures. This interesting model clearly requires a close cooperation among responsible authorities, the management of higher education institutions, and companies.

CONCLUSIONS

A policy that encourages partnerships between higher education institutions and the private field is necessary in a knowledge-based economy. One should take into account the fact that higher education institutions and companies have different characteristics and objectives. Accordingly, although decisional factors promote a closer cooperation, they nevertheless should not allow the principles of an entirely free market to penetrate public higher education. They should consider certain measures capable to protect academic liberty, for instance, owing to avoiding the phenomenon of choosing research issues mainly out of financial reasons.

In certain countries, authorities explicitly interdict certain forms of private financing of higher education institutions and implement various restrictions and terms regarding the search and use of private funds. The question whether these restrictions and terms represent a measure that guarantees the quality of public services or, on the contrary, they are an obstacle in developing private financing sources still remains to be deliberated upon.

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INDEXING STRATEGIES FOR OPTIMIZING QUERIES ON MYSQL

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ABSTRACT: *This article investigates MySQL's index capabilities. It begins by reviewing how indexes work, as well as their structure. Next, it reviews indexing features specific to each of the major MySQL data storage engines. This article then examines a broad range of situations in which indexes might help speed up your application. In addition to examining how indexes can be of assistance. In this article we present index usage type: B-trees, hash and bitmap, in order to optimize queries, although MySQL has implemented and indexes spacious R-trees. The index type corresponds to the particular kinds of internal algorithms and datastructures used to implement the index. In MySQL, support for a particular index type is dependent upon the storage engine.*

KEY WORDS: *Optimizing database structure, Database performance, Optimizing queries, Indexes, B-tree Index, Hash Index, Bitmap Index, Storage engines*

JEL CLASSIFICATION: *M15*

1. CONSIDERATIONS ON THE MYSQL DATABASE INDEXING

Database tuning is the process of improving database performance by minimizing response time (the time it takes a statement to complete) and maximizing throughput (the number of statements a database can handle concurrently per second) (Schwarty, et al., 2004).

Tuning is a team exercise - collectively performed by DBAs, database designers, application designers and database users, based on understanding of the database. Tuning both depends on and impacts the following: table design, relationships, index design, and other components; query design, size of data read and

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retrieved, and order of execution; nature and frequency of read and insert/update/delete operations; partitioning of the work between the Database server and the client; timing, events and effect of loading tables, indexes or parts there of into memory; concurrency characteristics of statements.

Database performance becomes an important issue in the presence of large amounts of data, complex queries, queries manipulating large amounts of data, long running queries, queries that lock every one else out, large number of simultaneous transactions, large numbers of users and limited bandwidth. In general, most database systems are designed for good performance. The best improvements can be achieved in the initial design phase but sometimes not enough information is available about the characteristics of a database. Later, altering a large database in production use can be expensive and practical considerations put constraints on what can be changed. Tuning can make the difference between a query taking milliseconds or minutes or even more to execute.

Database system is the core of management information systems, database-based online transaction processing (OLTP) and online analytical processing (OLAP) is a banking, business, government and other departments of the most important one of computer applications (Williams & Lane, 2007). From the application of most systems, the query operation in a variety of database operations in the largest occupied, and the query operation is based on the SELECT statement in the SQL statement is a statement of the cost of the largest. For example, if the amount of data accumulated to a certain extent, such as a bank account to the database table of information on the accumulation of millions or even tens of millions of records, full table scan often requires tens of minutes time, and even a few hours. If better than the full table scan query strategy can often be reduced to a few minutes to make inquiries, we can see the importance of query optimization technology.

Many programmers think that query optimization is a DBMS (database management system) tasks, prepared with the programmer has little to do with SQL statement, which is wrong. A good query plan performance often can improve the number of times. Query plan is submitted by users a collection of SQL statements, query plan is optimized to deal with the statement after the collection of produce. DBMS query plan to deal with the process is as follows: in the query after the lexical, syntax check, the statement will be submitted to the DBMS's query optimizer, optimizer after algebraic optimization and optimization of access to the path followed by pre-compiled modules processing of statements and generate inquiries, planning, and then at the right time to the system implementation, the final results will be returned to the user. In the actual database products (such as Oracle, Sybase, etc.) are all versions of the high cost-based optimization method, this optimization of the dictionary from the system based on the information table to estimate the different costs of planning inquiries, and then select a better planning (Opell, 2006). While it is in the database query optimization has been done better, but by the user of the SQL statement submitted to the system based on optimization, it is difficult to imagine a worse original query plan after the system has become efficient after optimization, so written statement of the advantages and disadvantages of users is essential. System we did not discuss query optimization, focusing on the following plan to improve the

user's query solution. Like beauty, the most attractive indexing strategy is very much in the eye of the beholder. After indexes are in place for primary, join, and filter keys (a universal standard of indexing beauty, perhaps?), what works for application A might be the wrong approach for application B.

Application A might be a transactional system that supports tens of thousands of quick interactions with the database, and its data modifications must be made in milliseconds. Application B might be a decision support system in which users create an ample assortment of server-hogging queries. These two applications require very different indexing tactics.

MySQL's optimizer always tries to use the information at hand to develop the most efficient query plans. However, requirements change over time; users and applications can introduce unpredicted requests at any point. These requests might include new transactions, reports, integration, and so forth.

Indexing is the most important tool you have for speeding up queries. Other techniques are available to you, too, but generally the one thing that makes the most difference is the proper use of indexes. On the MySQL mailing list, people often ask for help in making a query run faster. In a surprisingly large number of cases, there are no indexes on the tables in question, and adding indexes often solves the problem immediately. It doesn't always work like that, because optimization isn't always simple. Nevertheless, if you don't use indexes, in many cases you're just wasting your time trying to improve performance by other means. Use indexing first to get the biggest performance boost and then see what other techniques might be helpful.

The particular details of index implementations vary for different MySQL storage engines. For example, for a MyISAM table, the table's data rows are kept in a data file, and index values are kept in an index file. You can have more than one index on a table, but they're all stored in the same index file. Each index in the index file consists of a sorted array of key records that are used for fast access into the data file.

By contrast, the BDB and InnoDB storage engines do not separate data rows and index values in the same way, although both maintain indexes as sets of sorted values. By default, the BDB engine uses a single file per table to store both data and index values. The InnoDB engine uses a single tablespace within which it manages data and index storage for all InnoDB tables. InnoDB can be configured to create each table with its own tablespace, but even so, a table's data and indexes are stored in the same tablespace file.

MySQL uses indexes in several ways. As just described, indexes are used to speed up searches for rows matching terms of a WHERE clause or rows that match rows in other tables when performing joins. For queries that use the MIN() or MAX() functions, the smallest or largest value in an indexed column can be found quickly without examining every row. MySQL can often use indexes to perform sorting and grouping operations quickly for ORDER BY and GROUP BY clauses.

Sometimes MySQL can use an index to reading all the information required for a query. Suppose that you're selecting values from an indexed numeric column in a MyISAM table, and you're not selecting other columns from the table. In this case, when MySQL reads an index value from the index file, it obtains the same value that it

would get by reading the data file. There's no reason to read values twice, so the data file need not even be consulted (Dubois, 2008).

In general, if MySQL can figure out how to use an index to process a query more quickly, it will. There are and disadvantages. There are costs both in time and in space. In practice, these drawbacks tend to be outweighed by the advantages, but you should know what they are.

First, indexes speed up retrievals but slow down inserts and deletes, as well as updates of values in indexed columns. That is, indexes slow down most operations that involve writing. This occurs because writing a record requires writing not only the data row, it requires changes to any indexes as well. The more indexes a table has, the more changes need to be made, and the greater the average performance degradation (Dubois, 2008). Second, an index takes up disk space, and multiple indexes take up correspondingly more space. This might cause to reach a table size limit more quickly than if there are no indexes: For a MyISAM table, indexing it heavily may cause the index file to reach its maximum size more quickly than the data file. For BDB tables, which store data and index values together in the same file, adding indexes causes the table to reach the maximum file size more quickly.

All InnoDB tables that are located within the InnoDB shared tablespace compete for the same common pool of space, and adding indexes depletes storage within this tablespace more quickly. However, unlike the files used for MyISAM and BDB tables, the InnoDB shared tablespace is not bound by your operating system's file-size limit, because it can be configured to use multiple files. As long as you have additional disk space, you can expand the tablespace by adding new components to it. InnoDB tables that use individual tablespaces are constrained the same way as BDB tables because data and index values are stored together in a single file.

2. INDEXING STRATEGIES. CASE STUDY

In this article we present index usage type: B-trees, hash and bitmap, in order to optimize queries, although MySQL has implemented and indexes spacious R-trees.

The index type corresponds to the particular kinds of internal algorithms and datastructures used to implement the index. In MySQL, support for a particular index type is dependent upon the storage engine.

SQL code for creating the database used in the case study is:

```
create database work;
create table person (
id int( 9 ) unsigned not null auto_increment primary key ,
age tinyint( 3 ) unsigned not null ,
last_name varchar( 30 ) not null ,
hometown varchar( 30 ) not null ,
gender enum( 'female', 'male' ) not null) engine = innodb;
select count(*) as records_no
from `person`;
```

Table 1. Query result

records_no
101001

Database tables, at least conceptually, look something like in Table 2:

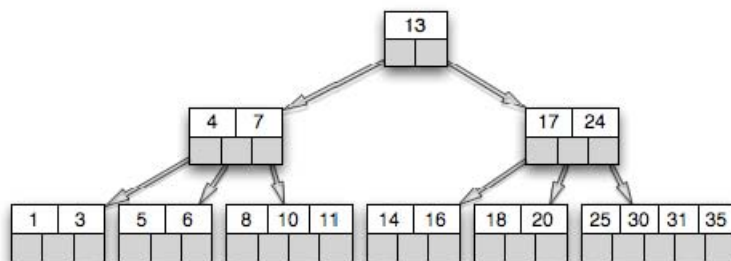
Table 2. A view of 'work' database

id	age	last_name	hometown	gender
...
1	10	Jianu	Slatina	Female
2	27	Stoica	Satu Mare	Male
3	15	Rosca	Pitesti	Male
4	64	Fabian	Mangalia	Female
5	13	Popescu	Slatina	Male
6	17	Stoica	Orsova	Male
...
100	49	Matei	Bucuresti	Female
101	30	Voicu	Mangalia	Male
102	18	Simion	Slatina	Female
104	6	Jianu	Slatina	Male
...
10000	4	Florescu	Mangalia	Male
10001	25	Balaci	Craiova	Female

2.1. B-tree index

They are general purpose indexes. Supported for the MyISAM, InnoDB, MEMORY and NDB storage engines. A B-Tree index is redundant if all of its columns are also indexed in the same order by another index, and the first indexed column is the same for both these indexes. Another way of putting it is to say that the columnlist of the index is the leftmost prefix of the columnlist of the other index.

The data structure most commonly used for database indexes is B-Trees, a specific kind of self-balancing tree. A picture's worth a thousand words, so here's an example from Figure 1 which shows the image of a B-tree index for age column in table person.

**Figure 1. B-Tree index structure**

A B-tree index is a data structure in the form of a tree - no surprises there - but it is a tree of database blocks, not rows. Imagine the leaf blocks of the index as the pages of a phone book. Each page in the book (leaf block in the index) contains many entries, which consist of a name (indexed column value) and an address (ROWID) that tells you the physical location of the telephone (row in the table).

The names on each page are sorted, and the pages - when sorted correctly - contain a complete sorted list of every name and address.

A sorted list in a phone book is fine for humans, because we have mastered "the flick" - the ability to fan through the book looking for the page that will contain our target without reading the entire page. When we flick through the phone book, we are just reading the first name on each page, which is usually in a larger font in the page header. If we had no thumbs, we may find it convenient to create a separate ordered list containing the first name on each page of the phone book along with the page number. This is how the branch-blocks of an index work; a reduced list that contains the first row of each block plus the address of that block. In a large phone book, this reduced list containing one entry per page will still cover many pages, so the process is repeated, creating the next level up in the index, and so on until we are left with a single page: the root of the tree.

The main benefit of a B-tree is that it allows logarithmic selections, insertions, and deletions in the worst case scenario. And unlike hash indexes it stores the data in an ordered way, allowing for faster row retrieval when the selection conditions include things like inequalities or prefixes.

B-tree indexes can be used effectively for comparisons involving exact or range-based comparisons that use the <, <=, =, >=, >, <>, !=, and BETWEEN operators. B-tree indexes can also be used for LIKE pattern matches if the pattern begins with a literal string rather than a wildcard character.

For example, using the tree above, to get the records for all people younger than 13 requires looking at only the left branch of the tree root.

```
create index age_btx using btree on
person(age);
select id, last_name, age from person where age<13;
/* Afiseaza inregistrari 0 - 29 (11,162 total, Comanda a
durat 0.0002 sec) */
```

Nodes in a B-tree contain a value and a number of pointers to children nodes. For database indexes the "value" is really a pair of values: the indexed field and a pointer to a database row. That is, rather than storing the row data right in the index, you store a pointer to the row on disk. For example, if we have an index on an age column, the value in the B-tree might be something like (34, 0×875900). 34 is the age and 0×875900 is a reference to the location of the data, rather than the data itself. This often allows indexes to be stored in memory even for tables that are so large they can only be stored on disk. Furthermore, B-tree indexes are typically designed so that each node takes up one disk block. This allows each node to be read in with a single disk operation.

MySQL database Servers support b-tree indexes, these indexes are designed to perform very well with OLTP databases with high unique values. Pages in B-tree indexes are known as index nodes. The top level node is called root node, the middle nodes are known as branch nodes / intermediate levels and the bottom level nodes are called leaf nodes (Stephens & Russell, 2004).

The root node contains node pointers to branch nodes / intermediate nodes. Branch node contains pointers to other branch nodes / intermediate nodes or leaf nodes. The bottom nodes known as leaf node contain index items and horizontal pointers to other leaf nodes.

Also, for the pedants among us, many databases use B+ trees rather than classic B-trees for generic database indexes. InnoDB's B-tree index type is closer to a B+ tree than a B-tree, for example.

A B+ tree is in the form of a balanced tree in which every path from the root of the tree to a leaf of the tree is the same length.

Each nonleaf node in the tree has between $\lceil n/2 \rceil$ and n children, where n is fixed. B+ trees are good for searches, but cause some overhead issues in wasted space.

A typical node contains up to $n - 1$ search key values K_1, K_2, \dots, K_{n-1} , and n pointers P_1, P_2, \dots, P_n . The search key values are kept in sorted order.

The principal advantage of B+ trees over B trees is they allow you to in pack more pointers to other nodes by removing pointers to data, thus potentially decreasing the depth of the tree.

The disadvantage is that there are no early outs when you might have found a match in an internal node. But since both data structures have huge fanouts, the vast majority of your matches will be on leaf nodes anyway, making on average the B+ tree more efficient.

B+ trees are much easier and higher performing to do a full scan, as in look at every piece of data that the tree indexes, since the terminal nodes form a linked list. To do a full scan with a B-tree you need to do a full tree traversal to find all the data.

B-trees on the other hand can be faster when you do a seek (looking for a specific piece of data by key) especially when the tree resides in RAM or other non-block storage. Since you can elevate commonly used nodes in the tree there are less comparisons required to get to the data.

B+ trees are especially good in block-based storage (eg: hard disk). With this in mind, you get several advantages, for example (from the top of my head):

- high fanout / low depth: that means you have to get less blocks to get to the data. with data intermingled with the pointers, each read gets less pointers, so you need more seeks to get to the data;
- simple and consistent block storage: an inner node has N pointers, nothing else, a leaf node has data, nothing else. That makes it easy to parse, debug and even reconstruct;
- high key density means the top nodes are almost certainly on cache, in many cases all inner nodes get quickly cached, so only the data access has to go to disk.

One possible use of B+ trees is that it is suitable for situations where the tree grows so large that it need not fit into available memory. Thus, it'd generally expect to be doing multiple I/O's. Often it does happen that a B+ tree is used even when it in fact

fits into memory, and then your cache manager might keep it there permanently. But this is a special case, not the general one, and caching policy is a separate from B+ tree maintenance as such.

Also, in a B+ tree, the leaf pages are linked together in a linked list (or doubly-linked list), which optimizes traversals (for range searches, sorting, etc.). So the number of pointers is a function of the specific algorithm that is used.

In B+ tree, since only pointers are stored in the internal nodes, their size becomes significantly smaller than the internal nodes of B-tree (which store both data + key). Hence, the indexes of the B+ tree can be fetched from the external storage in a single disk read, processed to find the location of the target. If it has been a B tree, a disk read is required for each and every decision making process.

2.2. Hash index

They are general purpose indexes. Supported for the MEMORY and NDB storage engines. Formerly, these were known as HEAP tables. Each MEMORY table is associated with one disk file. MEMORY tables use a hashed index and are stored in memory. This makes them very fast, but if MySQL crashes you will lose all data stored in them. MEMORY is very useful for temporary tables. The MySQL internal MEMORY tables use 100% dynamic hashing without overflow areas. There is no extra space needed for free lists. MEMORY tables also don't have problems with delete + inserts, which normally is common with hashed tables.

A Hash index is redundant if each of its columns matches all of the columns in the same order of another Hash index. Another way of putting it is to say that the column lists of these indexes are duplicates of one another. Take the example from table person, finding all people with a last name of 'Stoica'. One solution would be to create a hash table. The keys of the hash would be based off of the last_name field and the values would be pointers to the database row. Most databases support them but they're generally not the default type. We consider a query like this: "Find all people who are younger than 45." Hashes can deal with equality but not inequality. That is, given the hashes of two fields, there's just no way for us to tell which is greater than the other, only whether they're equal or not.

For a hash index, a hash function is applied to each column value. The resulting hash values are stored in the index and used to perform lookups. (A hash function implements an algorithm that is likely to produce distinct hash values for distinct input values. The advantage of using hash values is that they can be compared more efficiently than the original values.) *Hash indexes are very fast for exact-match comparisons performed with the = or <=> operators. But they are poor for comparisons that look for a range of values, as in these expressions: id < 30; age between 10 and 20.*

If it uses a MEMORY table only for exact-value lookups, a hash index is a good choice. This is the default index type for MEMORY tables, so you need do nothing special. If it needs to perform range-based comparisons with a MEMORY table, it should use a B-tree index instead (see Figure 2). To specify this type of index, add USING BTREE to your index definition.


```

create table person_1 (
  id int( 9 ) unsigned not null auto_increment primary key ,
  age tinyint( 3 ) unsigned not null ,
  last_name varchar( 30 ) not null ,
  hometown varchar( 30 ) not null ,
  gender enum( 'female', 'male' ) not null) engine = memory;

insert into person_1
(`id`,`age`,`last_name`,`hometown`,`gender`) select *
from person;

create index age_hmx using hash on person_1(age);

select id, last_name, age from person_1 where age=13;
/* Records show 0 - 29 (1,016 total, Execution time 0.0002
sec) */

select id, last_name, age from person_1 where age<13;
/* Records show 0 - 29 (11,162 total, Execution time
0.0004 sec) */

create index age_bmx using btree on person_1(age);

select id, last_name, age from person_1 where age=13;
/* Records show 0 - 29 (1,016 total, Execution time 0.0005
sec) */

select id, last_name, age from person_1 where age<13;
/* Records show 0 - 29 (11,162 total, Execution time
0.0002 sec) */

```

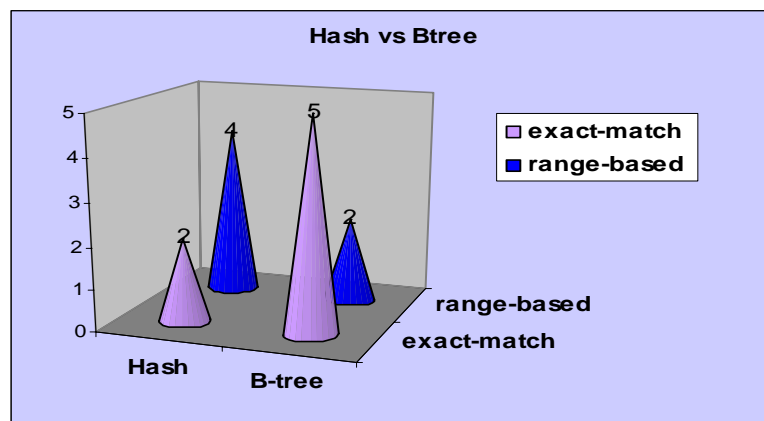


Figure 2. Comparative analysis of hash and b-tree indexes

In brief, hash indexes have somewhat different characteristics:

- They are used only for = or <=> comparisons (but are very fast).

- The optimizer cannot use a hash index to speed up ORDER BY operations. (This type of index cannot be used to search for the next entry in order.)
- MySQL cannot determine approximately how many rows there are between two values (this is used by the range optimizer to decide which index to use). This may affect some queries if you change a MyISAM table to a hash-indexed MEMORY table.
- Only whole keys can be used to search for a row. (With a B-tree index, any leftmost prefix of the key can be used to find rows.)
- The hash-index allows you to increase access to columns.
- The hash-index is stored only in operating memory.
- Each time the indexed table is modified, the hash-index is updated automatically.
- If it have a hash index on a MEMORY table that has a high degree of key duplication (many index entries containing the same value), updates to the table that affect key values and all deletes are significantly slower. The degree of this slowdown is proportional to the degree of duplication (or, inversely proportional to the index cardinality). It can use a B-tree index to avoid this problem.

2.3. Bitmap index

A bitmap index is a special kind of index that stores the bulk of its data as bit arrays (bitmaps) and answers most queries by performing bitwise logical operations on these bitmaps. The most commonly used index, such as B+trees, are most efficient if the values it indexes do not repeat or repeat a smaller number of times. In contrast, the bitmap index is designed for cases where the values of a variable repeat very frequently. For example, the gender field in a person database, from our example, usually contains two distinct values: Male or Female. For such variables, the bitmap index can have a significant performance advantage over the commonly used trees. In a Bitmap index, a 2 dimensional array is created. The array represents the index value multiplied by number of rows. One column is allotted for every row in the table being indexed. When a row is retrieved, the bitmap is decompressed into the RAM data buffer to rapidly scan for matching values. Each matching value is returned as a ROW ID which can be used to access the desired information.

In MySQL is not implemented bitmap index, but can be made an analogy with the MySQL ENUM or SET datatype wich are stored as integer value within the MySQL tables. The ENUM or SET elements are stored in the MySQL table as a bitmap: each element is represented by a single bit.

Continuing the gender example, a bitmap index may be logically viewed as in Table 3.

The SET datatype is a string type, but is often referred to as a complex type due to the increased complexity involved in implementing them. A SET datatype can hold any number of strings from a predefined list of strings specified during table creation. The SET datatype is similar to the ENUM datatype in that they both work with predefined sets of strings, but where the ENUM datatype restricts to a single member of the set of predefined strings, the SET datatype allows you to store any of the values together, from none to all of them.

Bitmap indexes might also prove useful for EXISTS and COUNT. Sometimes the user will have to use a hint to "force" bitmap index use. Bitmap indexes would be very useful in a data warehouse environment when many rows will contain the same amount of data (for aggregation), unlike b-tree indexes which are good for unique column values.

Table 3. Logical view for a bitmap index

id	gender	bitmaps	
		F	M
...
1	Female	1	0
2	Male	0	1
3	Male	0	1
4	Female	1	0
5	Male	0	1
6	Male	0	1
...
100	Female	1	0
101	Male	0	1
102	Female	1	0
104	Male	0	1
...
10000	Male	0	1
10001	Female	1	0

MySQL has no bitmap indexes but achieves similar functionality using its "index_merge" feature. Bitmap indexes will be introduced with the Falcon engine.

The Index Merge method is used to retrieve rows with several range scans and to merge their results into one. The merge can produce unions, intersections, or unions-of-intersections of its underlying scans. This access method merges index scans from a single table; it does not merge scans across multiple tables.

On the left, identifier refers to the unique number assigned to each person, gender is the data to be indexed, the content of the bitmap index is shown as two columns under the heading bitmaps. Each column in the above illustration is a bitmap in the bitmap index. In this case, there are two such bitmaps, one for gender Female and one for gender Male. It is easy to see that each bit in bitmap M shows whether a particular row refers to a Male. This is the simplest form of bitmap index.

In our demonstration we have worked on for is the use of indexes in simple (single table) queries. For this demonstration we used the standard schema and a couple of the provided bitmap schema on the person_1 table; that is the GENDER (GENDER_BIT) index.

Firstly, let's look at the data distributions:

```
create index gender_bit on person(gender);
select count(*) as number_of_persons from person
group by gender;
```

Table 4. Query result

number_of_persons
50381 (Female)
50620 (Male)

There are about 51% Male persons and 49% Female persons. So what happens when we query the person_1 table on gender = Male.

```
select * from person where gender = 'Male';
explain select * from person where gender = 'Male';
/* Records show 0 - 29 (50,620 total, Execution time
0.0010 sec) */
```

Table 5. Explain plan query

id	select_type	table	type	possible_keys	key	key_len	ref	rows	Extra
1	SIMPLE	person	ref	gender_bit	gender_bit	1	const	50620	Using where

```
select * from person where age=13 and gender='Male'
EXPLAIN select * from person where age=13 and
gender='Male'
/* Records show 0 - 29 (494 total, Execution time 0.0002
sec) */
```

Table 6. Explain plan query

id	select_type	table	type	possible_keys	key	key_len	ref	rows	extra
1	SIMPLE	person	index_merge	age_btx, gender_bit	age_btx, gender_bit	1,1	NULL	494	Using intersect(age_btx,gender_bit); Using where

In EXPLAIN output, the Index Merge method appears as index_merge in the type column. In this case, the key column contains a list of indexes used, and key_len contains a list of the longest key parts for those indexes.

Now we know the basics of what indexes are and how they work. Here are few things to keep in mind when creating indexes.

- **Indexes should be created on columns with high cardinality**, the basic rule for B-Tree indexes is minimum 10% before index will be useful. If table have 1000 rows then the column you want to index should have at least 100 different values.
- Index should be created on columns used in WHERE clause, Order By, Group By, Distinct etc, **not columns you only display as output**.

- **All columns used in WHERE clause** should be included in single index to get best results.
- **Do not create indexes unless you need them**, too many indexes will slow INSERT, UPDATE and DELETE.
- **Index short values.** Use smaller data types when possible. Smaller values improve index processing in several ways: Shorter values can be compared more quickly, so index lookups are faster; Smaller values result in smaller indexes that require less disk I/O; With shorter key values, index blocks in the key cache hold more key values. MySQL can hold more keys in memory at once, which improves the likelihood of locating key values without reading additional index blocks from disk. For the InnoDB and BDB storage engines that use clustered indexes, it's especially beneficial to keep the primary key short. A clustered index is one where the data rows are stored together with (that is, clustered with) the primary key values. Other indexes are secondary indexes; these store the primary key value with the secondary index values. A lookup in a secondary index yields a primary key value, which then is used to locate the data row. The implication is that primary key values are duplicated into each secondary index, so if primary key values are longer, the extra storage is required for each secondary index as well.
- **Create indexes on column(s) which are queried frequently.**
- **Index prefixes of string values.** If you're indexing a string column, specify a prefix length whenever it's reasonable to do so. For example, if you have a CHAR(200) column, don't index the entire column if most values are unique within the first 10 or 20 characters. Indexing the first 10 or 20 characters will save a lot of space in the index, and probably will make your queries faster as well. By indexing shorter values, you gain the advantages described in the previous item relating to comparison speed and disk I/O reduction. You want to use some common sense, of course. Indexing just the first character from a column isn't likely to be that helpful because then there won't be very many distinct values in the index.
- **Take advantage of leftmost prefixes.** When it creates an n -column composite index, it actually creates n indexes that MySQL can use. A composite index serves as several indexes because any leftmost set of columns in the index can be used to match rows. Such a set is called a "leftmost prefix." (This is different from indexing a prefix of a column, which is using the first n characters of the column for index values.)
- **Match index types to the type of comparisons you perform.** When it create an index, most storage engines choose the index implementation they will use. For example, InnoDB always uses B-tree indexes. MySQL also uses B-tree indexes, except that it uses R-tree indexes for spatial data types. However, the MEMORY storage engine supports hash indexes and B-tree indexes, and allows you to select which one you want. To choose an index type, consider what kind of comparison operations you plan to perform on the indexed column.

Database indexes are auxiliary data structures that allow for quicker retrieval of data. The most common type of index is a B-tree index because it has very good general performance characteristics and allows a wide range of comparisons, including both equality and inequalities. The penalty for having a database index is the cost

required to update the index, which must happen any time the table is altered. There is also certain about of space overhead, although indexes will be smaller than the table they index.

For specific data types different indexes might be better suited than a B-tree. For fields with only a few possible values bitmap indexes might be appropriate.

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CORRELATES OF EMPLOYEE SATISFACTION WITH PERFORMANCE APPRAISAL SYSTEM IN FOREIGN MNC BPOs OPERATING IN INDIA

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ABSTRACT: *This paper is based on an empirical study of five foreign MNC BPO firms operating in India, ranked among the top 100 by the International Association of Outsourcing Professionals (IAOP) for the year 2009. The data was collected using quantitative methods from 163 employees constituting 1% of the population under study. The level of satisfaction among the respondents towards the performance appraisal system is at 69.94 per cent. Regression analysis, using a significance level of 5 per cent, shows that three of the variables used in the study are significantly influencing the satisfaction and all these three significant variables are positively associated with satisfaction and all other variables have emerged as the insignificant variables. All the variables used in our study collectively account for 42.6 per cent of the satisfaction. The factor analysis has identified four factors: the variables of factor one contribute 34.786 per cent variation, followed by 12.788 per cent, 11.961 per cent and 8.389 per cent variation being contributed by factor two, three and four respectively.*

KEY WORDS: *Employee Perceptions; Performance Appraisal System; Foreign MNC BPOs*

JEL CLASSIFICATION: *G30, J50*

1. INTRODUCTION

Performance appraisal is among the most important human resource (HR) practices and it is one of the more heavily researched topics (Fletcher, 2002). Performance appraisal may now be seen as a generic term covering a variety of activities through which organizations seek to assess employees and develop their

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competence, enhance performance and distribute rewards (Fletcher, 2001). That is why, today, the focus of both practice and research has been moving towards developmental performance appraisal (Levy and Williams, 2004). According to Fletcher (2001), the performance appraisal must be viewed as a mechanism for developing and motivating people. There is a general consensus among performance appraisal researchers and practitioners that assessment of appraisal reactions is important (Keeping & Levy, 2000). For instance, it is frequently argued that in order for performance appraisal to positively influence employee behaviour and future development, employees must experience positive appraisal reactions; if not, any appraisal system will be doomed to failure (Murphy & Cleveland, 1995). The satisfaction with performance appraisal is the most frequently measured appraisal reaction (Keeping and Levy, 2000) and studies have reported that there is a positive relationship between satisfaction with performance appraisal and overall job satisfaction (Ellickson, 2002), since job satisfaction is positively related to performance (Judge et al., 2001). There is an extensive research on the factors that influence the satisfaction of the employees towards the performance appraisal or other reactions in different contexts (Levy and Williams, 2004). However, there is a lack of enough empirical evidence on the factors that influence the satisfaction of the BPO employees towards the performance appraisal system. In this context, this paper attempts to study, analyze and group the factors that influence the satisfaction of the employees of the foreign MNC BPO firms operating in India towards the performance appraisal system.

2. OBJECTIVES OF THE STUDY

This empirical study of the correlates of employee satisfaction with performance appraisal system in foreign MNC BPO firms operating in India has the following objectives: to study and analyze the perceptions of the employees with regard to the performance appraisal system being practiced by the foreign MNC BPO firms; to analyze the satisfaction of the employees of the foreign MNC BPO firms towards the performance appraisal system; to identify and group the most important factors responsible for the satisfaction of the employees of the foreign MNC BPO firms towards the performance appraisal system.

3. REVIEW OF THE LITERATURE

A brief review of the studies made in this area in the Indian context is presented here. De (2004), based on a sample survey of BPO employees (n=462), reported that more than 61% of the respondents under his study felt that the appraisal system in BPOs was transparent and slightly fewer than 55% felt that it was fair and more than 63% gave thumbs up to the fact that special initiatives and efforts were duly recognized at the time of appraisal. Rani and Mahalingam (2003), based on a sample survey of BPO employees (n=544) across the country, reported that the BPO is an industry where performance is almost entirely metrics- driven and it is also an industry where metrics and the pressure to deliver on them have emerged as significant causes of stress. Yet - by the very fact that the metrics are automatically generated and cannot

be argued with - there was comparatively less angst on the appraisal system in the BPO industry than in the IT industry. As per their study, the overall satisfaction score for the ITeS employees was at 8.3 (or 83.0 per cent) on a scale of 10. Babu (2004), based on a sample survey of 277 call center employees, has opined that the performance of the BPO employees is linked with incentives in cash and kind and the annual increments in salary as well as the vertical mobility of the agents in the BPO firms are also linked to their ratings. Linking performance with incentives and/or punitive actions forces the agents to stress continuously. Shivani (2006) observes that the performance appraisal in BPOs means a hurried 5-minute session for the HR manager who, many a time, is very badly prepared for the session and sometimes the employees get to meet their managers and interact with them only during this time. The number of ratings to be given under various categories is fixed, following a bell-curve distribution and the ratings depend on 'quota'! Awards are mostly given as ad hoc measures to temporarily satisfy the employees and most often do not influence the final ratings, which are also often ad hoc! What further complicates affairs is that the ratings also determine whether the person will be eligible for a promotion in the next 12 months. According to her, such practices demotivate the employees. Ramakrishna (2002), a senior human resources executive suggests that clearly enunciating the performance management system is very critical for an employee to know what is expected out of him and what the performance parameters are. Bhaduri (2008) opines that if one wants to manage attrition, one should start by looking at the performance management system of the organization. In his opinion, every manager should be adequately trained to give candid feedback and also to coach the players in his team. These studies indicate that all is not well with the appraisal system in the BPO firms. In this context, an attempt has been made by the researchers to study, analyze and group the correlates of the employee satisfaction with the performance appraisal system being practiced by the foreign MNC BPO firms operating in India.

4. THE RESEARCH HYPOTHESIS & METHODOLOGY

The following research hypothesis has been formulated by the researchers: "The variables of assessment of performance appraisal have significant relation with the satisfaction of the respondents towards the performance appraisal system". The study mainly depended upon the primary data. However, some secondary sources of data were also consulted for the purpose of gathering background information supporting the study. Relevant primary data was collected using quantitative (sample survey through questionnaire) methods. The data was collected from a total of five foreign MNC BPO firms which were selected on the basis of the ranking announced by the International Association of Outsourcing Professionals (IAOPs) for the year 2009 as "The 2009 Global Outsourcing 100". The study covered the units of these MNCs located in Bangalore, considered to be the silicon valley of India. Access to these BPO firms was secured through contacts and through networking techniques. Altogether, data was collected from a total of 163 employees and these 163 employees constitute 1 per cent of the population under the study. The awareness about the performance appraisal system is measured on a scale of 'yes/no/can't say' and the perceptions of the

respondents on the twelve statements are measured on Likert's (1932) five point scale of 'strongly disagree ... strongly agree', the scale in quantitative terms being: 0 - 20 per cent: strongly disagree, 21 - 40 per cent: disagree, 41 - 60 per cent: not sure, 61 - 80 per cent: agree, 81 - 100 per cent: strongly agree and the satisfaction of the respondents towards the performance appraisal system is rated again on Likert's (1932) five point scale of 'highly dissatisfied ... highly satisfied', the scale in quantitative terms being: 0 - 20 per cent: highly dissatisfied, 21 - 40 per cent: dissatisfied, 41 - 60 per cent: not sure, 61 - 80 per cent: satisfied, 81 - 100 per cent: highly satisfied. A multiple regression analysis, using a significance level of 5 per cent, has been made to identify the variables influencing the satisfaction of the respondents towards the performance appraisal system and the results are presented here. The results of the factor analysis, being performed under the Principal Component Analysis Method to identify and group the most important factors responsible for the satisfaction of the respondents towards the performance appraisal system, have been presented in this paper. Finally, the paper concludes with the researchers' contributions to the literature and the scope for further research in this area.

5. EMPLOYEE PERCEPTIONS OF THE PERFORMANCE APPRAISAL SYSTEM

The perceptions of the respondents with regard to the performance appraisal system are presented here. As per Table 1, an overwhelming majority of 87.1 per cent of the respondents under the study report that they are aware of the performance appraisal system in their respective firms and only 12.9 per cent of the respondents report that they are not aware of the system.

Table 1. Awareness of the Performance Appraisal System among the respondents

Are the respondents aware of the performance appraisal system in the BPOs under study	Yes %	No %	Total %
Total	87.1	12.9	100

Source: Survey Data

The views of the respondents on twelve statements being used to study their agreement towards those statements are presented in Table 2. On our scale, the respondents under the study 'strongly agree' on three of the statements, that is, (a) my duties are clearly given out (the level of agreement = 80.20 per cent), (b) I know what is expected of me in the job (the level of agreement = 84.54 per cent) and (c) the appraisal system is timely (the level of agreement = 80.37 per cent) and the respondents 'agree' on eight of the statements, that is, (a) the performance appraisal system is transparent (the level of agreement = 73.74 per cent), (b) the performance appraisal system is participative (the level of agreement = 75.21 per cent), (c) the performance appraisal system is objective (the level of agreement = 73.62 per cent), (d) good measures/parameters of individual or group performance exist (the level of agreement = 79.02 per cent), (e) the special initiatives and efforts are recognized at the time of appraisal (the level of agreement = 75.46 per cent), (f) my last performance

appraisal accurately reflected my performance (the level of agreement = 70.67 per cent), (g) appraisal policies go in tandem with promotion, reward and transfer policies (the level of agreement = 69.69 per cent) and (i) the appraisals are mostly seen as a motivating tool (the level of agreement = 78.16 per cent), and interestingly, only on one of the statements, that is, the performance appraisal system is often invalid, unfair, discriminatory and is based on favoritism the respondents report that they are ‘not sure’ on this issue (the level of agreement = 56.20 per cent).

Table 2. Employee Perceptions of the Performance Appraisal System

Variable	1 %	2 %	3 %	4 %	5 %	Mean	S.D.	% Mean
My Duties are clearly given out	2.5	4.3	14.7	47.9	30.7	4.01	.923	80.20
I know what is expected of me in the job	1.2	7.4	7.4	35.6	48.5	4.23	.958	84.54
Appraisal system is transparent	3.1	6.1	27.6	45.4	17.8	3.69	.940	73.74
Appraisal system is timely	1.8	5.5	14.7	44.8	33.1	4.02	.933	80.37
Appraisal system is participative	6.1	4.9	17.8	49.1	22.1	3.76	1.047	75.21
Appraisal system is objective	2.5	11.7	22.1	42.9	20.9	3.68	1.010	73.62
Good measures/parameters of individual or group performance exist	1.2	2.5	23.9	44.8	27.6	3.95	.852	79.02
Special initiatives are recognized at the time of appraisal	3.1	9.2	19.6	43.6	24.5	3.77	1.020	75.46
Last performance appraisal accurately reflected my performance	6.1	13.5	21.5	38.7	20.2	3.53	1.140	70.67
The appraisal system is often invalid, unfair, discriminatory, and based on favoritism	22.7	18.4	22.7	27.6	8.6	2.81	1.298	56.20
Appraisal policies go in tandem with promotion, reward and transfer policies	3.7	16.6	24.5	38.0	17.2	3.48	1.074	69.69
Appraisals are mostly seen as a motivating tool	1.2	12.3	15.3	36.8	34.4	3.91	1.047	78.16

(Note: 1 - strongly disagree, 2 - disagree, 3 - Not sure, 4 - agree, 5 - strongly agree)

Source: Survey data

The study findings (Table 3) indicate that, on an average, the level of satisfaction among the respondents towards the performance appraisal system is at 69.94 per cent, which implies, on our scale, that the respondents are ‘satisfied’ with the performance appraisal system of the foreign MNC BPO firms for whom they are working at present.

Table 3. Satisfaction of the respondents towards the Performance Appraisal System

Variable	1 %	2 %	3 %	4 %	5 %	Mean	S.D.	% Mean
The respondents are satisfied with the performance appraisal system	8.6	12.3	14.1	50.9	14.1	3.50	1.141	69.94

(Note: 1 - highly dissatisfied, 2 - dissatisfied, 3 - Not sure, 4 - satisfied, 5 - highly satisfied)

Source: Survey data

The present study supports the findings of De (2004) and Rani and Mahalingam (2003) on the perceptions of the BPO employees with regard to the performance appraisal system being adopted by their employers and it does not find any significant evidence to prove the findings of Shivani (2006).

6. FACTORS INFLUENCING THE SATISFACTION TOWARDS THE PERFORMANCE APPRAISAL SYSTEM

Table 4. Factors influencing the satisfaction of the employees towards the Performance Appraisal System

	Unstandardized Coefficients		Standardized Coefficients	T	p
	B	Std. Error	Beta		
(Constant)	-.757	.520		-1.455	.148
My duties are clearly given out	.094	.116	.076	.805	.422
I know what is expected of me in the job	-.130	.112	-.109	-1.160	.248
Appraisal system is transparent	.003	.101	.003	.030	.976
Appraisal system is timely	.169	.105	.138	1.606	.110
Appraisal system is participative	.040	.100	.037	.404	.686
Appraisal system is objective	.235	.106	.208	2.224	.028
Good measures/parameters of individual or group performance exist	.100	.108	.075	.930	.354
Special initiatives are recognized at the time of appraisal	.168	.091	.150	1.833	.069
Last performance appraisal accurately reflected my performance	.188	.078	.188	2.417	.017
The appraisal system is often invalid, unfair, discriminatory, and based on favouritism	.067	.060	.076	1.117	.266
Appraisal policies go in tandem with promotion, reward and transfer policies	-.048	.081	-.045	-.598	.550
Appraisals are mostly seen as a motivating tool	.258	.082	.237	3.150	.002

A regression analysis was made to identify the variables influencing the satisfaction of the respondents towards the performance appraisal system of the foreign MNC BPO firms under study (Table 4). A significance level of 5 per cent was used for our analysis. The result of the regression analysis shows that the variables of the objectivity in the appraisals ($p = .028$), the accuracy of the previous appraisals ($p = .017$) and viewing appraisals as a motivating tool ($p = .002$) are significantly influencing the satisfaction of the respondents towards the performance appraisal system and all the other variables like my duties are clearly given out ($p = .422$), I know what is expected of me in the job ($p = .248$), transparency in the appraisal system ($p = .976$), timeliness of the appraisals ($p = .110$), employee participation in appraisal system ($p = .686$), existence of good measures/parameters of individual or group performance ($p = .354$), recognition of special initiatives and efforts at the time of appraisals ($p = .069$), the performance appraisal system is often invalid, unfair, discriminatory and is based on favoritism ($p = .266$) and appraisal systems go in tandem with promotion, reward and transfer policies ($p = .550$) have emerged as the insignificant variables. The variables of the objectivity in the appraisals (Standardized Beta Coefficient = .208), the accuracy of the previous appraisals (Standardized Beta

Coefficient = .188) and viewing appraisals as a motivating tool (Standardized Beta Coefficient = .237) are positively associated with satisfaction of the respondents. The variable of viewing appraisals as a motivating tool contributes more towards satisfaction of the respondents with 23.7 per cent (Standardized Beta Coefficient = .237) followed by the objectivity in the appraisals with 20.8 per cent (Standardized Beta Coefficient = .208) and the accuracy of the previous appraisals with 18.8 per cent (Standardized Beta Coefficient = .188).

Model 1

Model	R	R Square	F	p
1	.653	.426	9.280	.000

However, as per the Model 1 above, all the variables used in the study collectively account for 42.6 per cent of the satisfaction of the respondents towards the performance appraisal system.

7. HYPOTHESIS TESTING

A multiple regression analysis was used to test the hypothesis and the results are reported in Table 4. As discussed already in the previous paragraph, the regression analysis shows that three of the variables used in the assessment of performance appraisals have significant and positive relationship with the satisfaction of the respondents towards the performance appraisal system and the remaining nine variables have no significant relationship with the satisfaction of the respondents towards the performance appraisal system, and hence, the hypothesis being considered by the researchers is partially accepted and partially rejected.

8. FACTORS INFLUENCING THE SATISFACTION TOWARDS THE PERFORMANCE APPRAISAL SYSTEM - A FACTOR ANALYSIS

The researchers have used ‘factor analysis’ to identify and group the most important factors responsible for the satisfaction of the respondents towards the performance appraisal system. According to KMO and Bartlett’s Test, factor analysis can be performed for the given data as $p = .000 < .01$ (Table 5).

Table 5. KMO and Bartlett’s Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.773
Bartlett’s Test of Sphericity	Approx. Chi-Square	670.289
	df	66
	Sig	.000

The factor analysis has been performed by using the Principal Component Analysis Method in order to identify the factors which discriminate each other and the results of the analysis are presented here (Table 6 & 7).

Table 6. Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.174	34.786	34.786	4.174	34.786	34.786	3.096	25.797	25.797
2	1.535	12.788	47.575	1.535	12.788	47.575	1.848	15.400	41.197
3	1.435	11.961	59.536	1.435	11.961	59.536	1.810	15.082	56.279
4	1.007	8.389	67.925	1.007	8.389	67.925	1.398	11.646	67.925
5	.841	7.010	74.934						
6	.717	5.977	80.912						
7	.513	4.273	85.185						
8	.485	4.042	89.227						
9	.407	3.394	92.620						
10	.337	2.812	95.433						
11	.312	2.603	98.036						
12	.236	1.964	100.000						

Extraction Method: Principal Component Analysis.

Table 7. Rotated Component Matrix

	Component			
	1	2	3	4
Duties are clearly given out			.889	
I know what is expected of me in the job			.874	
Appraisal system is transparent	.606			
Appraisal system is timely	.784			
Appraisal system is participative	.828			
Appraisal system is objective	.824			
Good measures/parameters of individual or group performance exist	.685			.663
Special initiatives are recognized at the time of appraisal		.656		
Last performance appraisal accurately reflected my performance				.782
The appraisal system is often invalid, unfair, discriminatory, and based on favouritism		.628		
Appraisal policies go in tandem with promotion, reward and transfer policies		.809		
Appraisals are mostly seen as a motivating tool				

Notes: 1. Extraction Method: Principal Component Analysis; 2. Rotation Method: Varimax with Kaiser Normalization; 3. Rotation converged in 5 iterations

The factor analysis has identified the following four factors:

- *Factor 1:* This factor consists of the following variables which contribute 34.786 per cent variation. The variables are: transparency in the appraisals with factor loading of .606; timeliness of the appraisals with factor loading of .784; employee participation in the appraisals with factor loading of .828; objectivity in the appraisals with factor loading of .824; existence of the good measures/parameters of individual/group performance with factor loading of .685. The above are the most important factors which contribute the most to the overall level of satisfaction of the respondents towards the performance appraisal system being practiced by the foreign MNC BPO firms operating in India.
- *Factor 2:* This factor consists of the following variables which contribute 12.788 per cent variation. The variables are: accuracy of the previous appraisals with factor loading of .656; appraisal policies go in tandem with promotion, reward and transfer

- policies with factor loading of .628; viewing appraisals as a motivating tool with factor loading of .809
- *Factor 3:* This factor consists of the following variables which contribute 11.961 per cent variation. The variables are: duties are clearly given out with factor loading of .889; I know what is expected of me in the job with factor loading of .874
 - *Factor 4:* This factor consists of the following variables which contribute 8.389 per cent variation. The variables are: recognition of special initiatives at the time of appraisal with factor loading of .663. The appraisal system is often invalid, unfair, discriminatory, and based on favouritism with factor loading of .782

9. CONCLUSION

Considering the nature of the ITES-BPO industry, one can surely be convinced that the performance appraisal system is inevitable and that over a short period of time the employees of these firms have to either accept it as a fact of life or quickly adapt. Although the respondents report positively on the various variables being used to study their perceptions, there certainly appears to be a scope for improvement in the existing system within the ITES - BPO industry. The present system may be made simple and supportive of the employees' personality development and learning, it may provide a basis for factual feedback for the future development of the employees. The appraisal needs to be developmental and not just evaluative. It may not be confined just to the examination and analysis of the past performance, rather, it may identify the weaknesses and strengths as well as the opportunities for improvement and skill development of the employees so that he can develop as a better performer in the future and may make a career for himself in the industry. Again, the individual employees may be involved in the process of their goal setting and also in discussions on his/her career prospects. Perhaps, a more participative approach in this direction could be beneficial in improving the present performance appraisal system in the ITES-BPO industry.

The study has been successful in accomplishing its research objectives and it makes three contributions to the literature. First, the researchers have been able to present the perceptions of the BPO employees with regard to the performance appraisal system wherein the employees convey that they are not highly satisfied with the performance appraisal system being practiced by the BPOs under study; however, the overall level of satisfaction at 69.94 per cent is something not to be blindly ignored and thus, the respondents appear to be 'somewhat satisfied' with the performance appraisal system of the BPOs under study. Second, the researchers have been able to study and analyze the variables influencing the satisfaction of the employees towards the performance appraisal system, wherein the researchers have been able to establish that out of the twelve variables being used in the assessment of the performance appraisal system, only three variables have emerged as the significant variables and all these three variables are positively associated with the satisfaction of the respondents towards the performance appraisal system and the remaining nine variables have emerged as the insignificant variables in the assessment of performance appraisal system. Third and the most important, the researchers have been able to group,

through factor analysis, all the variables into four broad factors and also to establish that there are five most important variables that contribute the most to the overall level of satisfaction of the respondents towards the performance appraisal system.

With regard to the scope for further research, the following areas are suggested by the researchers: the primary data for the present research was collected during a period when the whole world was reeling under the pressure of global recession and hence, a research in the same area after the recovery from recession is suggested which will help validate or nullify the present findings; the study was based on a small sample of five large firms and hence, there is a scope to cover more number of firms in the future, giving proper representation to small, medium and large firms operating in the industry; a comparative study of Indian and foreign firms is suggested; a cross-national study in this industry is advised to understand the country-wise differences, and more importantly; a study in the same area but across different industries is highly suggested by the researchers which will help establish whether there is any similarity among the employees working for different industries with regard to their perceptions of the performance appraisal system or whether the BPO industry is unique in itself.

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ACCOUNTING TREATMENTS FOR FINANCING ENTITIES

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ABSTRACT: *One of the most important aspects of an entity is, without doubt, how to finance it, this being an ongoing concern of managers, particularly seeking the cost reduction of the borrowed capital and the increase of the financial profitability instalment. Accessing irredeemable funds is a reality of the recent years. Increasingly more companies are looking to these funds to achieve some development objectives. A thorough analysis of the financing possibilities (subsidy) is important for any entity, but the choice has to be made based on the recommendation of the domain specialists. No price is too high if it ensures you business continuity.*

KEY WORDS: *accounting policies; financing methods; Irredeemable financings*

JEL CLASSIFICATION: *M41*

1. INTRODUCTION

Year 2009 did not bring to much good news for small entrepreneurs and the bad news became a reality in Romania who faces the impact of a global economic crisis. The global economic crisis which started in 2008, also affected Romania, having negative effects on large companies and as well as on small entrepreneurs that were trying to carve a path in the economy. In the period October 2008 - March 2009, 57.58% of S.M.E's have reduced activity, 14.80% of companies went bankrupt.

According to Mediafax in 2009, 18,421 companies went bankrupt and the number of firms that entered into insolvency increased to 14,724, with 25% over the level in 2008. To remain on the market entities have to develop and to modernize the

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investments in facilities, equipments, machinery, gears by purchasing technologies, patents, trademarks, licenses, and by implementing and certifying quality management and environmental systems. We must therefore appeal to all sources for obtaining capital.

2. FINANCING

Financing is the entities' option destined for obtaining funds (liquidities) in order to cover temporary needs generated by commercial or production activities, or for development the existent production capacity through unfolding investments projects. Financing decision means choosing between personal funds and external fund for an investment project, and most part of the financial resources come from private sources (commercial banks, investment banks, investment funds), public sources usually occur in financing some important investment project and of general interest.

Sources of financing business are presented in the following figure.

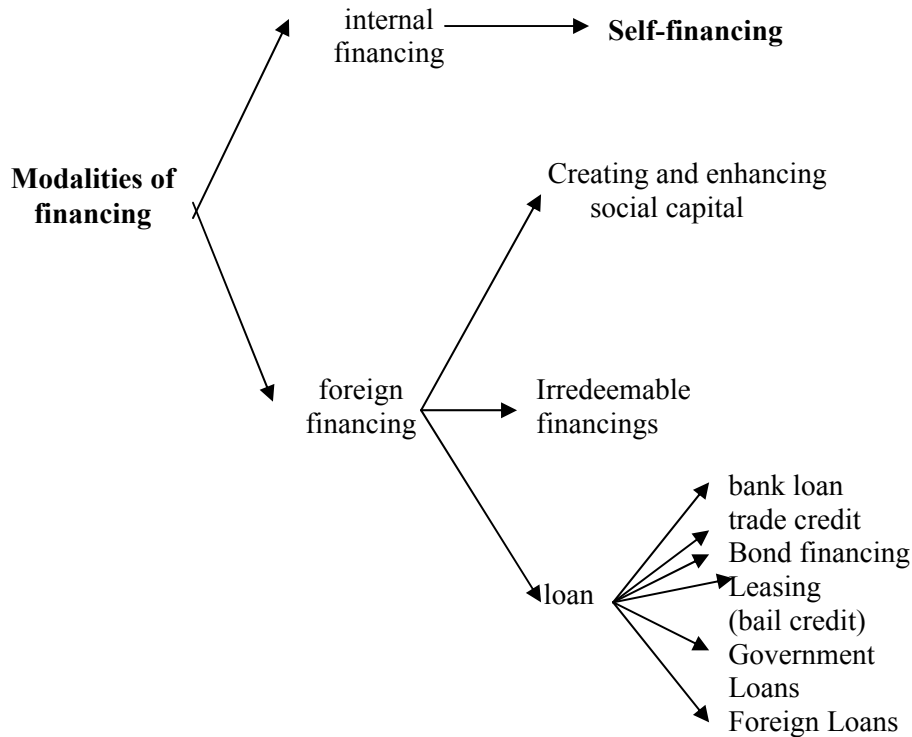


Figure 1. Sources of financing business

The main modalities of financing used by the entity are:

1. *Self-financing* - conducted by using only positive financial results achieved in previous years. It is rightly so considered as the most "healthy" way of funding and relies solely on the entity's own possibilities, having as main sources the

redemption of fixed capital and the undistributed part of the profit that is put into reserves and that is the financing source in forming capital.

2. *Resorting to long-term, medium or short-term loans*, made by issuing bonds or appealing to specialized credit institutions. Bank credit can be a very convenient way of financing, the bank offers the applicant an amount of money that will be reimbursed at a particular term, but in the context of a Romania in crisis, the financings granted by banks or non-bank financial institutions have become increasingly difficult to obtain, with high interest and bank fees.
3. *Resorting to external personal capitals* – accomplished by increasing cash capitals or by contribution of capital.

In essence, the financial systems' evolution has also determined the evolution of the financing methods for enterprises, from a self-financing system to a direct financing system (without intermediaries) and then at the intermediary financial system. As a matter of fact, these three financing methods reflect exactly the ensemble evolution of the financial system.

Starting from the moment of adhesion, Romania has access to financial resources, including Structural Funds (OP - Operational Programs are documents which set out the implementation of strategic actions in the NSRF and therefore effective access to Structural Instruments. There were developed seven operational programs (OP) in the "Convergence" Objective) which occupies a very important role. These aim at reducing disparities between European regions and promoting balanced and sustainable economic and social development.

The following fields can be financed from structural and cohesion funds of the EU and State aid: research and technological development, computerization of society, transport, energy, environment protection and risk prevention, tourism, culture, urban and rural regeneration, businesses and entrepreneurs, access to stable employment, social inclusion for disadvantaged persons, human capital development, investment in social infrastructure, including health and education and promotion of partnership development.

For a more analytic classification of the financing resources other five criteria can be used. These are:

- the nature of the debentures determined by the financial operations;
- the operations' term;
- the origin of the used funds;
- the nature of the funds' use or destination;
- reimbursement manner.

“From my point of view, the best classification is the one *regarding the reimbursement manner*. From this point of view, we distinguish two types of financial resources:

- reimbursable financial resources;
- unredeemable financial resources.” (Nagy & Trif, 2010)

Accessing unredeemable funds is a reality of the last years. More companies direct themselves towards these funds in order to accomplish the development objectives.

Reimbursable financial resources consist in the enterprises' obligatory character to repay at a certain term the loaned sum in the depreciable way in equal or unequal instalments at different terms or unredeemable, if the reimbursement of the loaned sources is made entirely at a single term. Usually, in this category of financial resources there are: bank loans, bonds, bank acceptance, commerce effects, as well as salaries and taxes and commercial credits.

A special category of public funds is the irredeemable financial aids granted by the group of developed countries or by international bodies (PHARE, Structural Funds EU grant funds provided by FAO, UNDP, and ONUDI).

Structural aids mobilized for the 2000 - 2006 period reached 213 billion Euros and they will be used to improve the economic situation of disadvantaged regions, which have specific deficits and weak social categories.

Table 1. Structural Aids 2000 – 2006

Structural Aids 2000 – 2006	213 billion
Structural Funds	195,00 billion
- Priority Objectives	182,45 billion
- Objective 1	135,90 billion
- Objective 2	22,50 billion
- Objective 3	24,05 billion
■ Community Initiatives	10,44 billion
■ The program for supporting fisheries	1,11 billion
■ Innovative support and technical assistance	1,00 billion
■ Cohesion and technical assistance Fund	18 billion

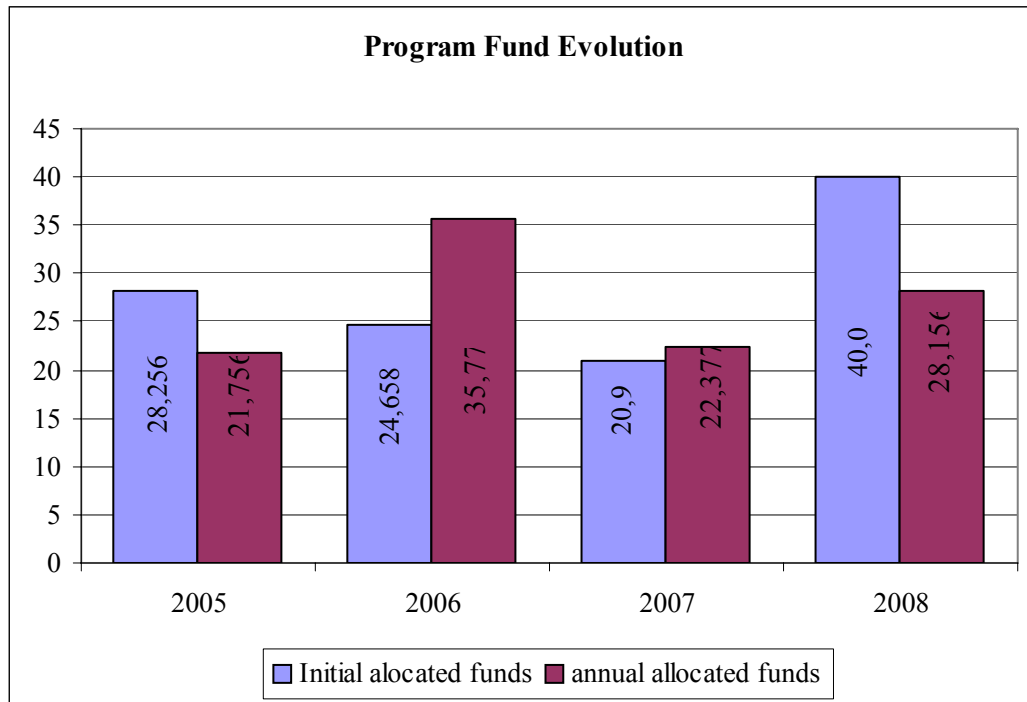
Source: Eurostat

The EU financial support for Romania in the period 2007 - 2009 was focused on helping our country to reduce negative social and economic impact of the adhesion due to different levels of economic development in comparison with the EU average. The amounts allocated exceed 15 billion Euros and they are intended primarily for agriculture development and rural environment and for some regional development programs.

In the period 2005-2008 the government has acted to raise progressively the percentage allocation of financial resources, GDP, to stimulate and support SMEs. In 2008 the initial amount allocated from the state budget to finance programs intended to support development of SMEs, increased the competitiveness of SMEs and facilitated confrontation with competition from the EU is 40 thousand lei and increased in 2006 to 24,658 thousand lei and in 2007 to 23,377 thousand lei.

For "Program to improve the competitiveness of industrial products" number of projects submitted and the funds paid to beneficiaries have increased continuously, from 315 projects submitted in 2003 to 814 filed in 2005 and the highest percentage of accepted projects is 67.16% in 2007.

The accounting policies regarding the reinvested profits starting with October 1, 2009 according to Law 343/2009 the entity can reinvest profit so that the profits reinvested in production and / or acquisition of technological equipment, machinery, gears and work facilities as they are outlined in the catalogue on classification and the normal duration of operation of fixed assets used in order to obtain taxable income is exempt from tax.



Source: Ministry of Economy - Directorate General industrial policy and competitiveness

Figure 2. Evolution Program for funds to improve the competitiveness of industrial products in the years 2003 to 2007

The accounting policies on engaging to credits from various entities so that they can be fully deductible in calculating the income tax, stating that interests and exchange rate differences regarding loans obtained directly from international development banks, the state guaranteed, as well as those related to loans obtained from Romanian or foreign banking companies, credit unions, leasing companies for leasing operations, mortgage credit entities and other legal entities that provide credits, does not enter in establishment calculation of interest costs deductibility.

Irredeemable financings include government subsidies, public or private irredeemable financing programs and they are designed to support the development of activities - important for certain segments of society or the overall development of economic and social organization - in areas where, because of cyclical situation, there are not sufficient financial resources currently available (for example, rehabilitation of infrastructure in poor regions, retraining, supporting the development NGO sector as a

partner of public authorities) or in areas where, traditionally, the need for financial resources is greater than the availabilities (for example, activities with social character).

During the year 2006, the most common financing methods used by SME' s in Romania are: about 70% of SME' s have been self-financed, about 57% of them have obtained bank loans and 39% of the SME' s type of companies have used leasing.

In 2008 the financing modalities that SME' s managers have used are presented as it follows: 64.42% of the companies have self-financed, 51.05% of them have obtained bank loans, 29.57% of SME' s companies have used leasing and 8.74% *have resorted to irredeemable funds* and 3.91% have used factoring as a financing source, 3.09% had loans from specialized financial institutions, 2.73% accessed the National Loan Guarantee Fund for SME' s and 1.46% realized issues on the capital market.

In 2009 there are used according to the investigation conducted by the National Council of Private Small and Medium Enterprises in Romania (NCPSMER): self-financing (used by 86.7% of the surveyed firms), bank loans (60.1%) and leasing (53.2%).

The research conducted in 2009 showed that entrepreneurs use available funds primarily to purchase new machinery and equipment - 79.80% and secondly to finance current activities of the company - 75.86%. Almost 43% of firms use the available financial resources to produce products and new technologies, or to upgrade the existing ones.

Received from the state budget funds to finance development programs intended to support SMEs, increase the competitiveness of SMEs and facilitating the confrontation with competition from the European Union

Romania Governance Program of the Coalition government-PD-L PSD during the period 2009 - 2012 devotes a chapter *competitiveness, business environment and SMEs*, and has the objectives of the government *"Supporting small and medium enterprises to become competitive, according to the rules single internal market and not distort fair competition conditions* (Governance Program 2009 - 2012).

The registration in accounting of the receipt and use of irredeemable funds is made in accordance with *the provisions of the Order No. 3055/2009*. The entities that develop irredeemable funds in external financing Programs to reflect the accounting transactions generated by these programs will use the *accounting treatment which applies to grants*, their customization is not needed.

IAS 20 Accounting for Government Grants describes the reflection methods in accounting of the public subsidies and other public assistance regarding investments or business support.

The accounting reasoning used to reflect in accounting the irredeemable funds will take into consideration the financing contracts, as well as the accounting regulations and accounting policies applicable to the beneficiaries of funds.

Depending on the information associated with these funding sources and legal provisions specific for the activity funded by subsidies, the entities that use such sources will determine the sets of procedures and accounting policies which comply with the accounting principles, as well as with the contractual arrangements established between the parties. For example, in the case of investment subsidies, the income

replay of the amounts used for paying investment suppliers will be done as future investment costs will exist, namely by putting in operation, throughout its lifetime.

Starting with 01.01.2010 according to the Gazette 3055/2009 both irredeemable funds and actual subsidies, are recorded at their entry into the entity's assets as components of equity by crediting the adequate account from group 47 "SUBSIDIES, REGULARIZATION AND ASSIMILATED ACCOUNTS".

3. CONCLUSIONS

The importance of entity financing results from the fact that solving in a certain way these problems condition the survival of the entity, its development prospects, its performance and not least the desire for a major achievement defined by the very purpose of the entity's existence, namely maximizing its value.

For the proper application of accounting policies on financing is it first needed the existence of accounting policies and procedures manual within each entity, for all transactions carried out, starting from preparing documents to complete quarterly and annual financial statements and informing the staff from the financial accounting department on the procedure for awarding grants. Only by the collaboration of all departments within an entity for applying all implemented procedures, a reasonable presentation of grants in accounting can be reached, and finally of the entity's financial statements.

These procedures should be developed given the specific activity, by specialists in economic, technical and commercial domain, experts in the activity performed and of the strategy adopted by the legal person. Choosing a way of financing or another must also be based on the size of the marginal cost of the capital used. In other words, is not sufficient to compare the cost specific for each financing source but also an analysis of the cost of each additional unit of allocated capital so that a comparison can be made between the effects generated by the process of financing through various ways. One the advantage of irredeemable financing is that activities can be financed without consuming their own resources or to contract loans.

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COMPULSORY SOCIAL CONTRIBUTIONS IN DIFFERENT COUNTRIES NOT MEMBERS OF THE EUROPEAN UNION

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ABSTRACT: *A proper understanding of the "details" of the pension system in our country can only be known if the essential, defining characteristics of pension systems in European Union countries and most developed countries in the world. Among the defining elements of any pension scheme among the most important are (a) the share of social contributions and (2) tax base. In the present social security contributions will be applied in the following countries are not EU Member States: Albania, Bosnia-Herzegovina, Croatia, Iceland, Macedonia, Moldova, Norway, Russia, Serbia, Montenegro, Turkey, Ukraine, Japan, United States of America. For a better comparison and social security contributions are presented in Romania. In the vast majority of these countries (a) base contributions is the gross income, (2) are used to calculate the progressive contribution rates for retirement, particularly in most developed countries, (3) pension contribution is supported both by the employee (employee) and employer, almost equally.*

KEY WORDS: *pensions; pension scheme contributions; compulsory social contributions; pension contributions; share; progressive taxation; the flat tax; the tax base; taxable matter; the taxpayer; the basic salary; gross income*

JEL CLASSIFICATION: *G00, G23*

1. PROBLEMS ARISE IN COMPARING THE LEVEL OF SOCIAL CONTRIBUTION RATES IN DIFFERENT COUNTRIES

A proper understanding of the "details" of the pension system in our country can only be known if the essential, defining characteristics of pension systems in European Union countries and most developed countries in the world. Among the

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defining elements of any pension scheme among the most important are (a) the share of social contributions and (2) tax base. To draw accurate conclusions from the performance comparisons of the level of rates of social contributions (pension, health, unemployment, work accidents and occupational diseases, etc..) From different countries must be taken into account the specificities and characteristics of the tax system in each country

.In making such comparisons must take into account the fact that there is no official source at the national level or international level, to the matter of taxes, taxes and social contributions in EU countries, most developed countries and those we have a direct interest (which is mostly Romanian to work and / or the Romanian companies are involved).

Comparing pension systems must be based on data from the same year and of identical items, and share the tax base, taxable materials, etc. taxpayers., And illuminating information, revealing. Even if it were present, by an official body (national or international), the comparison of these shares, the same year, for several countries, in some countries the rates are known subsequent changes, as large as it is Frequently, not only from year to year, but even within the same year, Romania's case is illustrative in this respect. For example, in Romania, in 2008, the same government budgetary contributions shares changed several times, something highlighted in the table below, the record is held by the contribution to health, as the three times that from January 1 , July 1 and December 1. At the same time, and "tax base" has changed radically, passing from their "base salary" to "gross income", which led to its increased 3-5 times within certain categories of employees paid with public money (where income "side" of salary were, until 2010, the 3-5 times higher than the basic salary).

There are countries, especially between the developed West, where most tax rates and / or social security contributions remain unchanged for long periods, up to 10 to 15 years. Only in 2000 and so far it appears that while some countries have lower rates of social contributions in question, others have increased. In some countries it shifted in the calculation of social contributions, from flat to progressive rates (less) in reverse, from progressive to flat rates.

At the same time, substantial changes were most countries, both in broadening the tax base and reconsidering the level of rates and facilities (facilities, exemptions, reductions) to pay contributions. With the changes taking place in many countries frequently (several times a year, annually or at 2-3 years), the mere discretion, only after the social contribution rates, reduced or enlarged, but without taking account the changes in the tax base (in some cases extended solid) leads to wrong conclusions. To ensure an accurate assessment of the "details" of the pension system in our country, to the pension systems in other countries, especially toward the European Union, developments and trends (directions of improvement) of their it must be known the main characteristics and features of pension systems even if only for countries that have data.

Romania's representatives in international bodies, particularly in the EU and those of countries that play a key role in economic and social progress worldwide, should be really active in the study, evaluate and inform about trends (evolution) of these phenomena, including interventions in the literature media, as is done in other

countries. Also, it requires that either the level of each ministry (depending on the competence of the ministry) or the Government to ensure, on the Internet, an annual information as correct and complete systems of taxation, social contributions, any other budgetary obligations charged in European Union countries, most developed countries and in countries which have a direct interest (ie in countries where there is a large number of Romanian to work and / or an interest in a large number Romanian companies).

Table 1. Payment Obligation

Payment Obligation	2007	2008		
		Total	Employer	Employee
Pension contribution				
In the period January 1 to November 30, 2008				
Normal work	29%	29%	19,5%	9,5%
Particular working conditions	34%	34%	24,5%	9,5%
Special working conditions	39%	39%	29,5%	9,5%
From 1 December 2008				
Normal work	29%	27,5%	18%	9,5%
Particular working conditions	34%	32,5%	23%	9,5%
Special working conditions	39%	37,5%	28%	9,5%
Health Contribution				
January 1 to June 30	12,5%	12,0%	5,5%	6,5%
July 1 to November 30	12,5%	11,0%	5,5%	5,5%
From December 1	12,5%	10,7%	5,2%	5,5%
Unemployment Contribution				
In the period January 1 to November 3	3,0%	1,5%	1,0%	0,5%
From December 1	3,0%	1,0%	0,5%	0,5%

The current crisis, with its numerous and serious adverse economic and social, reported in U.S. since August 2007, came to us after more than a year, but without representatives of the Romanian state and abroad have warned about it before. Most important is to consider the fact that the very economic and social development of each country depends to a large extent, the ability of its representatives in international organizations and countries that have a direct interest, to apply, evaluate and capitalize on time so everything is better in other countries, developments and trends and phenomena tax, financial, economic and social aspects of their globally.

This recital is to be known as pension schemes in most developed countries today, but, in particular, their trends and guidelines. To ensure an accurate directions to improve the pension system in our country, it must be the main characteristics and peculiarities of pension systems in countries for which we have data. In connection with sources of information on key elements of pension systems in European Union countries and most developed countries in the world is made clear that they are missing for some countries, be incomplete (especially in terms of knowledge base and whether the calculation of allowances, as simple or progressive) or for most countries they are from previous years, which may or may not be "old."

We say this considering the fact that in some countries, the taxes and contributions has remained unchanged for several years, in some cases up to 10-15 years, while in other countries such as Romania, it change from year to year (for social contribution rates). Also, it requires a statement that the materials are presented information about pension systems in different countries can not fix some of the essential elements of such pension schemes. For example, the terms "contribution rates are up ..." "contribution rates range from ... ' ; contribution rates are up to ... ' ; contribution rates are between ..." can not conclude if about progressive contribution rates or rates of contribution it is differentiated according to various criteria, such as working conditions, ie normal working conditions, great working conditions and / or special conditions of work in Romania and Moldova.

In other countries, quotas are not differentiated according to certain criteria, but the basis for calculating contributions. For example, in Norway, is the basis for calculating contributions to employees, according to incomes, and from employers, according to the area (territory) in which they operate. The direction and content of concepts are different not only from one country to another but even within the same country from one period to another, or from one government to another, something more true in countries constantly changing (but not always for the better). Notable in this regard is the content of 'base' social contributions, covered, in teribilist, our country's legislation, which provided:

1. Up to a certain date (January 1, 2009), "base" was very different from social security contributions (irrationally, without any explanation) from an input to another. For example, contributions for unemployment, "base" consisted of "basic pay", while the pension contribution that was made up of "gross income". But this "gross income - the basis for calculating pension contributions" in some was capped at three times the average national gross wages, then the national gross average wages in May, after which he removed the cap, because in 2010, to make the problem return again to cap five average gross salaries in the country.

2. Up to a certain date (January 1, 2009), the "base" of social security income is not included some particularly high, such as "incentives", which reached in some state employees to be 3-5 times higher than basic salary. After inclusion of the "incentives" to "base" of social contributions, the (base) increased by up to 3-5 times in many 'luxury budget'. we presented these few examples, among many others of this kind can give, to understand the character of teribilist even some of the most important legal provisions. If only from the above impossibility of making clear (easily) comparisons of the same social benefit even from the same country

In some countries, like Russia, is practiced two types of social benefits: (1) "unified social contributions", which accumulate contributions for pension, health and the federal budget, and which (a) are based on salary paid and (b) is calculated based on progressive rates (2) contributions for work accidents, which also are "variable."

In other countries such as Ukraine, the more allowances for social security contributions, each with different destinations, such as "33.2% of the State Pension Fund, 1.5% for Social Security Fund 1.3% Fund Employment insurance, 0.66% - 13.60% for the Insurance Fund for accidents at work". There are countries where the

pension contribution is borne solely by the employee (employee) or only the employer, such as Iceland.

As one can easily see from what follows, the vast majority of these countries (a) base contributions is the gross income, (2) are used to calculate the progressive contribution rates for retirement, especially in those countries more developed, (3) pension contribution is supported both by the employee (employee) and employer, almost equally.

Some problems arise in connection with the sense notions of "progressive rate" and "flat." For example, in Romania, in 2010, following the practice for pension contributions: 31.3% for normal working conditions, 36.3% for the particular working conditions, 41.3% for special working conditions.

The question is: in Romania, in 2010, the pension contribution is calculated based on "progressive rate", or based on "flat"? It is a flat, but vary according to working conditions, or whether the progressive rate? Staff believe that it is progressive rates. Argument: as if the progressive taxation of labor income, rate differentiation is based on a "criterion" that is "the size of income", so in calculating the pension contribution rate differentiation is increasingly based on a criterion which, in this case, is "working conditions". In all cases the rates applicable progressive rate differentiation is based on a "criterion". In other words, in all cases where "the same category of income is subject to" different rates ", according to certain criteria, there is actually and truly, a " progressive taxation ", regardless of the criteria for differentiating allowances.

2. COMPULSORY SOCIAL CONTRIBUTIONS IN DIFFERENT COUNTRIES NOT MEMBERS OF THE EUROPEAN UNION

In the present social security contributions will be applied in the following countries are not EU Member States: Albania, Bosnia-Herzegovina, Croatia, Iceland, Macedonia, Moldova, Norway, Russia, Serbia, Montenegro, Romania, Turkey, Ukraine , Japan, United States Of America.

ALBANIA .The calculation of contributions is the gross income. Social security contributions are up 11.2% from employees and employers up to 30.7%.

BOSNIA – HERZEGOVINA. Social security contributions are up 11.5% from employees and the employers of up to 32%.

CROATIA . The calculation of contributions is the gross income. Employees due to the pension fund contribution of 20% and 17.2% employers.

ICELAND . The calculation of contributions is the gross income. In Iceland, social security contributions are payable only by employers and not exceed 5.73%.

MACEDONIA . In Macedonia, due to employees pension fund contribution rate of 11.3% and 21.2% share with employers.

REPUBLIC. State Social Insurance in the Republic are governed by the following legislation: 1) the Law on Social Insurance System, no. 489-XIV of 08.07.1999 (Official Gazette of the Republic of Moldova no. 1-4 from 01/06/2000). 2) the State Social Insurance Act 2010, no. 129-XVIII from 23.12.2009 (Official Gazette of the Republic of Moldova no. 193-196 of 29.12.2009). To ensure "all types of social insurance benefits, employers due to the" payroll and other rewards, 23% for "normal"

job and 33% for "special" jobs. Employers in agriculture (natural and legal persons) calculates the state social security contributions for the year 2010, with 23% share. Individuals, excluding pensioners, invalids and other persons expressly provided by law, due to "lei 4044 annual individual insurance" for "minimum old-age pension and death grant."

NORWAY. The calculation of contributions from employees (employees) according to incomes and to employers by area (territory) in which they operate. Employees due to a contribution to the pension fund with shares ranging between 7.8% and 10.7%, and employers with odds ranging between 0% and 14.1%.

RUSSIA. In Russia social practice two types of contributions: (1) "unified social contributions" and (2) contributions for work accidents. " Progressive rates "unified social contribution" (which accumulate pension contributions, health and the federal budget) are paid based on salary and varies between 2% and 26%. Progressive rates for "the work accident" varies between 0.2% and 8.5%.

SERBIA . Social security contributions are 17.9% for employees and, separately, 17.9% for all employers.

MONTENEGRO. Serbia and Montenegro was a union state in the south-eastern Europe. Belgrade was the capital of the state union, while Serbia's capital, which had a hegemonic position. On May 21, 2006 decided the population of Montenegro, with 55.4% of votes, the separation from Serbia, the union almost ceased to exist on June 3, when Serbia officially proclaimed its independence. The rules for calculating social security contributions in Montenegro are different from those in Serbia. The calculation of contributions is the gross wage. Employees due to a pension fund contribution rate of 20% and 16.1% with the employers.

TURKEY . In Turkey, social contributions are up to 14% for employees and up to 19.5% for employers.

ROMANIA. Rates are calculated with budgetary obligations owed by the employee (employee) and employer of labor income in Romania, in 2010, are presented in the table below. The calculation of contributions is the gross income. Rates are calculated with budgetary obligations owed by the employee (employee) and employer of labor income in Romania, in 2010, are presented in the table below. The situation is made by the authors through the analysis of normative acts in force in 2010, which is set every budget requirement.

UKRAINE. In 2007, in Ukraine, social security contributions from gross salary is calculated based on the following rates: 33.2% for the State Pension Fund. 1.5% Social Insurance Fund. 1.3% Employment Insurance Fund. 0.66% - 13.60% for the Insurance Fund for Work Accidents. Employees bear 4% of gross wages, and employers from 37.6% - 50.6% of gross payroll.

JAPAN . The calculation of contributions is the gross wage. In Japan, compulsory social contributions to employees due share of 16.592% and 17.442% share of the employers.

UNITED STATES OF AMERICA. From the semantic point of view, should be made clear that the U.S. uses a charge for both the tax and for the taxes and contributions. The paper "Political Economy" by Paul A. Samuelson and William D. Nordhaus translated into Romanian and published by Teora, contains numerous and

very important information on the U.S. pension system. The concept of "social security taxes" from the text contained in his "Political Economy" by Paul A. Samuelson and William D. Nordhaus, be interpreted as having meaning and content of "social security contributions (could be a error of interpretation or translation and interpretation, and translation, especially since, as we stated, in English and American tax systems do not really make a distinction between "tax", "tax" and "contribution").

Payment obligation	December 2009 total	Year 2010			Individual Contributors, 2010
		Total	Employer	Employee	
1. Health Contribution (Law nr. 11/2010; Law nr. 95/2006)					
Health Contribution (CASS)	10,7%	10,7%	5,2%	5,5%	See details
2. Pension contribution (Legea nr. 12/2010; Legea nr. 19/2000)					
Normal working conditions	28%	31,3%	20,8%	10,5%	31,3%
Particular working conditions	33%	36,3%	25,8%	10,5%	36,3%
Special conditions of employment	38%	41,3%	30,8%	10,5%	41,3%
3. Contribution for holidays and allowances (O.U.G. nr. 158/2005)					
Contribution for holidays and benefits	0,85%	0,85%	0,85%	–	0,85%
4. Unemployment Contributions (Law nr. 12/2010 și Legea nr. 76/2002)					
Unemployment Contributions	1,0%	1,0%	0,5%	0,5%	1,0%
5. Contributions to the fund to guarantee payment of wage claims (L. nr. 12/2010; L. nr. 200/2006)					
Contribution to the guarantee fund for salary liabilities	0,25%	0,25%	0,25%	–	–
6. Contributions for work accidents and occupational diseases (Law nr. 12/2010; Legea nr. 346/2002)					
Contributions for work accidents and occupational diseases	0,15% – 0,85%	0,15% – 0,85%	0,15% – 0,85%	–	1%
7. Employers' obligations for the Rights of Persons with Disabilities (Law nr. 448/2006)					
By art. 78 of Law no. 448/2006 states that "(2) The authorities and public institutions, legal persons, public or private, which have at least 50 employees are obliged to employ disabled persons at a rate of at least 4% of the total number employees. (3) public authorities and institutions, legal persons, public or private, which employs people with disabilities as provided in par. (2) may choose to fulfill one of the following requirements: a) pay monthly to the state budget an amount representing 50% of the gross minimum wage in the country multiplied by the number of jobs have not hired people with disabilities b) to purchase their products or services made by people with disabilities engaged in protected units permitted on a partnership basis, in an amount equivalent to the amount owed to the state budget, as stipulated in point. a)."					
8. The fee for keeping books and completing work (Law nr. 130/1999)					
By paragraph (A) of art. 5 of Law no. 130/1999 states that "(1) For services provided by this law, local labor inspectorates will charge a set fee as follows: a) 0.75% of total gross monthly wages, employers who retain them and make them work records; b) 0.25% of total gross monthly wages, employers who provide the services referred to in art. 3, consisting of checking and certifying the legality of recordings made by them. "					
9. Tax on income / wages (Law nr. 571/2003)					
By paragraph (2) of Art. 57 of Law no. 571/2003 states that "(2) monthly tax provided in par. (A) is determined as follows: a) the place where the basic function, the application rate of 16% over base determined as the difference between the net income from wages, calculated by deducting from gross income contributions mandatory for a month, the following:-personal tax paid for that month;-month paid union dues, pension funds, voluntary contributions, so that the year may not exceed the equivalent in RON of EUR 400; b) for the proceeds in other cases by applying the rate of 16% over base determined as the difference between gross income and mandatory contributions for each place thereof; "					
10. Budgetary obligations for pension income (Law no. 571/2003; Law no. 19/2000; Law no. 95/2006)					
And in 2010, the contribution of health (5.5%) and tax (16%) is calculated only from the amount in excess of 1,000 lei per month, not the total amount of pension. Tax on taxable income = taxable income in retirement from pensions x tax rate = [income subject to financial obligations - health contribution] x tax rate = [pension income - taxable amount of 1,000 lei - contributing to health] x tax rate .					
11. Budgetary obligations in convention revenues Civil (Civil Code)					
Health contribution is due only if the income that accrues not of the kind referred to in art. 257 paraagraoh. (2). a) - d) of Law no. 95/2006. Taxes are due by 16%. View details of this material.					

In the work mentioned above and the following considerations are particularly important with regard to the public (compulsory, state) pension (emphasis added). The

future of social security tax. [...] Unfortunately, many economists believe that social security will face serious financial problems in the future. Pensions are financed by taxes on current workers' wages. As the percentage of older people, they will be supported financially by a decreasing number of workers. The outcome will result either in higher taxes paid workers, or in reduced aid for seniors, or in both forms [...].

Workers receive pension rights according to the gains obtained during both active and taxes were paid in the past for social protection. Insurance Program also funds the program for helping people in disability and health insurance system for poor and elderly. To pay these benefits, employees and employers pay a payroll tax. In 1993, this tax accounted for 15.3% of total annual earnings of less than \$ 57,600, plus 2.9% annual earnings between 57,600 and \$ 135,000. The tax is shared between employers and employees [...]. "

In Figure 1 we are presented the results of a recent survey of all taxes and transfers from the federal budget, in this figure, the transfers are treated as negative taxes, as expressed in negative values. Interestingly, this approach examines the size and income taxes during their lifetime, and not just over a year. Thus, taking into account the important changes occurring throughout a person's life (for example, people entering and leaving the labor market, social security taxes paid when young and old age pension benefits). The study also takes into account the incredible complexity of American tax system, described in the lines above. The results indicate that imposition is generally progressive character from top to bottom, the lowest groups benefit from transfers from the budget, while the top groups bear the greatest average rate of tax. A closer look at the structure of taxation and transfer indicates that the progressive nature, especially at the bottom of this system is determined primarily by transfers and taxes. The same fiscal impact is observed in most countries with developed market economy today. As stated in the conclusion of a study on this problem: The reality of almost all countries shows that overall tax system has almost no effect on income distribution ... This is because the impact of progressive income taxes is offset by regressive taxes, especially employers' social insurance contributions and indirect taxes ... When taxes, transfers and spending programs are considered together, it becomes clear that public spending programs, especially money transfers, are almost entirely responsible for changes in income distribution that have received government.

How does modern welfare state income citizens throughout their lives? Fullerton and Rogers have determined the impact of taxes levied by federal, state and local money transfers (from 1984) on income earned by a family over its life time. Tax and transfer system is phased in for almost every income category. Let us note that the system actually transfer income to disadvantaged groups, while the highest income groups pay a net tax of 15%. Source: Don Fullerton and Diane Lim Rogers, *Who Bears the Lifetime Tax Burden?* (Brookings Institution, Washington, DC 1993), p. 123. The data were updated for the 1993 income and revenue for the entire period of life were transformed into annual income using a real rate of interest of 5%. "

"Benefits" and "ability to pay" are the two primary aspects of the tax imposition. A tax is progressive, proportional or regressive when one side takes more or less income than rich families from the income of poor families. Direct taxes and progressive income taxes is in contrast to indirect and regressive sales and excise.

More than half of federal revenues from personal income taxes and those firms. The rest comes from social security taxes or fees on consumer goods. Local governments gain most of their revenue from property taxes, while sales taxes are the main source of revenue for state governments.

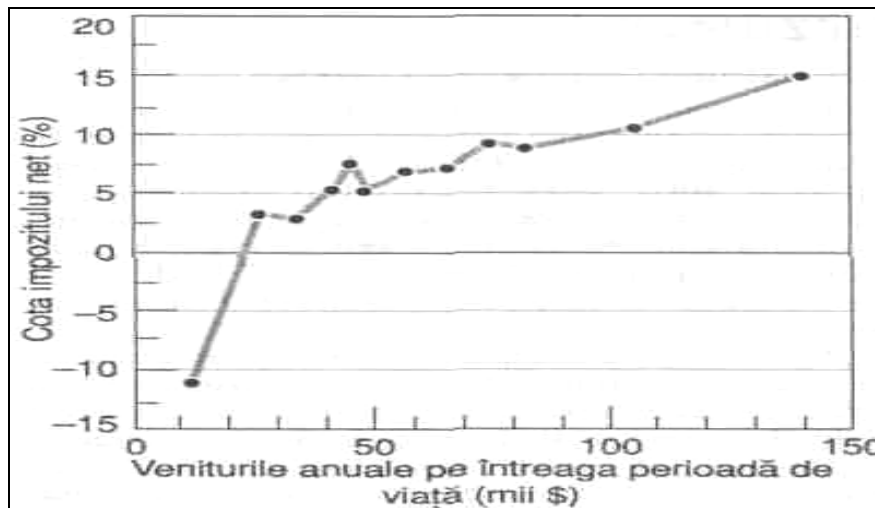


Figure 1. Who pays and who benefits from transfer taxes?

Individual income tax is charged on "income from any source," less certain tax exemptions and deductions. Marginal share of tax, representing the share of tax for each additional dollar earned is key to determining the impact of taxes on the willingness to work and save. Marginal tax rates have declined significantly during the '80s, but maximum rates were increased subsequently by President Clinton through the fiscal measures adopted in 1993. The highest federal tax rate is the tax increase for social security. Funds are derived from this tax are designed public pension system and helping the sick or unable to work. Since taxes are used for social assistance in the development of social programs, they have individual income tax [...]. " The incidence of a tax charge relates to its economic and its overall effect on prices and other economic quantities. Those who pay a transfer tax can bear the burden caused by the consumer or the factors of production. Tax and transfer system currently exists in the U.S. has a moderate progressive in character. " The early classical economists believed that the income distribution can not be changed. They argued that attempts to reduce poverty through government intervention is unnecessary effort may not only lead to reduced national income.

In the late nineteenth century, however, political leaders in Western Europe have taken a series of measures that have produced a historic change in the role of the state economy. Bismarck in Germany, Gladstone and Disraeli in Britain, followed by Franklin Roosevelt in the U.S. introduced the new concept of state responsibility for welfare. It is the welfare state, the government acts on market forces to protect citizens from unforeseen events and to ensure a minimum living standard. The welfare state

care within public pensions, insurance, accident and sickness insurance, unemployment insurance, health insurance, food programs and housing insurance, family allowances and financial aid granted to certain categories of people. These policies have been introduced progressively since 1880, although some programs such as health care insurance for the entire population, were not seriously taken into account in the U.S. until the '90s.

3. CONCLUSIONS

It carries out from the above with ease of comparison, even for a single social contribution, that contribution for retirement. This is due to the fact that there is no official source, no national or international, to provide social security situation of countries. As one can easily see from what follows, the vast majority of these countries (a) base contributions is the gross income, (2) are used to calculate the progressive contribution rates for retirement, especially in those countries more developed, (3) pension contribution is supported both by the employee (employee) and employer, almost equally.

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PUBLIC SECTOR BANKS IN INDIA ON RAPID HIRING SPREE: A COMPASSIONATE ANALYSIS WITH SPECIAL REFERENCE TO IDBI BANK

LIPIKA PATNAYAK, SUKANTA CHANDRA SWAIN *

ABSTRACT: *Banking sector in India has been experiencing the phase of ruthless competition since the new economic reforms initiated in the economy. Owing to aggressive strategies adopted by the private sector banks, the concern for the activation of the dictum 'perform or perish' in the industry, which might induce the Public Sector Banks (PSBs) in India to land into a highly perishable zone, has obligated them to come forward with a well equipped mode for providing a burly fight to their private counter parts. As a move in this regard, they are now in a rapid hiring spree. Although this strategy has primarily been designed for their own endurance, successful execution of the same would certainly benefit the economy as a whole in the form of higher income propagation, superior mobilization of funds and greater rate of employment generation. This paper is intended to analyze the urge and efficacy of the rapid hiring mode of the public sector banks, specifically IDBI Bank, in India.*

KEY WORDS: *expansion in banking sector; PSBs; manpower management; IDBI Bank*

JEL CLASSIFICATIONS: *G21*

1. INTRODUCTION

Since the origin of the Banking Sector in India, it has seen remarkable changes and to keep on with the rhythm of progress, it has successfully adopted the changes as well. India, also being accounted for the country having one of the highest populations in the world, there has always been a never-declining crave for funds to carry on their livelihood. Thus the onset of Banking Industry proved to be a boon for all the Indians.

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People got easy access to funds in order to fulfill their dreams and desires. From that time onwards, as the needs of the human grew, desire for more money also grew accordingly. Thus there was a need felt for more and more fund-raising institutions. As a consequence of such demand for funds, a number of Banks took their birth.

The period after 1970's saw rapid expansion of the banks in India under the control of the Government. It was the direct impact of the nationalization of the banking sector. This enabled each and every individual to steal the opportunity to have easy access to funds. This banking sector not only proved to be a source of funds but also new avenues of employment. It became a source of earning bread and butter for many people. In the mid 1990's, the liberalization of the economy led to the emergence of the private players in the existing scenario. This provided much better and easier accessibility of funds to the people. Their late arrival in the market enabled them the state-of-the-art technology. This helped them to work more effectively and efficiently in the market and thus outperformed their public sector counterparts. This helped the private sector banks to expand manifold.

This rapid expansion of the private sector banks proved to be a massive source of employment for thousands. In this run, public sector banks lost their charm. This proved to be a threat for them. PSBs found it difficult to compete with them. In order to compete they needed to implement in their bank the latest technology available as well as introduce the best Human Resource policies in order to regain their manpower strength and retain the talents which are already present with them.

IDBI Bank Limited, a public sector bank, accorded with the status of principal financial Institution for coordinating the working of institutions at national and state levels engaged in financing, promoting, and developing industries. Today it enjoys the position of the tenth largest development bank in the whole world. With a huge web of its network, IDBI is trying to shift from class banking to mass banking and from sellers' market to buyers' market and thus rank it as the fifth largest bank in India in the near future. It plans to reach as many customers as possible and provide financial solutions to one and all. It aims to take the bank to universal standards fulfilling the commitments made to the people in India. It is focusing on the customer satisfaction and their expectations regarding accuracy, security, transaction time, user friendliness, user involvement and conveniences which are the most important quality attributes in the perceived usefulness of banking services. In order to achieve these goals, the Human Resource Management plays a distinctive and significant role in collaborating with all such activities and making it successful.

The expansion of an organization followed by a recruitment spree doesn't make the all dreams come true. Even this process is associated with many intricacies which are to be dealt with and various activities which are imperative to be followed after such an aggressive hiring drive. Recruitment should be followed by a proper selection procedure. The new incumbents should be properly induced so as to make them understand the organization's vision, mission and objectives as well as the organization's policies and procedures. Afterwards they are required to be trained properly in their specialized work areas so that they excel in their field and give their best to the organization and prove to be its assets in near future.

The objective of this paper is to study the existing infrastructure and human resource policies of IDBI Bank Ltd. and the consequential benefits on further expansion - HR involvement, its proposed plan, phase-wise implementation and effectiveness specifically with respect to Job satisfaction of existing employees, Recruitment and Training by way of exploring the primary and secondary sources of information.

2. INDIAN BANKING SECTOR IN MODERN ERA

As far as the present scenario is concerned the Banking sector in India is going through a transitional phase. The Public Sector Banks (PSBs), which are the mainstay of the Banking sector in India account for more than 78 per cent of the total banking industry assets. Unfortunately they are burdened with excessive Non Performing assets (NPAs), excessive governmental equity and lack of modern technology, which in turn is the cause for unhappy employees of the organization. On the other hand the Private Sector Banks are making tremendous progress. They are forging ahead and rewriting the traditional banking business model by way of their sheer innovation and service. They have pioneered internet banking, phone banking, anywhere banking, mobile banking, debit cards, credit cards, Automatic Teller Machines (ATMs) and combined various other services and integrated them into the mainstream banking arena. As far as foreign banks are concerned they are likely to succeed in the Indian Banking Industry.

2.1. Expansionary Mode of PSBs

At present, the industry is in the makeover mode. The Public Sector Banks (PSBs) are in the midst of rejuvenation process by shedding their flab in terms of reducing the volume of Non Performing Assets (NPAs) and excessive governmental equity and at the same time adopting the new technological advancements in the banking sector and thus keep the workforce motivated to work for higher productivity. Looking into the possibility of increasing their number of branches as well as the number of employees, the public sector banks are in the expansion mode, i.e. willing to expand their number of branch networks and thus provide easy accessibility and comfort to their existing as well as prospective customers. They are, thus, gearing themselves for the fierce competition that is posed by the private banks. While the Private Sector Banks are in the consolidation mode by means of mergers and acquisitions.

The State Bank of India is planning to open 1,000 new branches across the country to cover 100,000 villages in the coming FY 2009-10, according to the bank Chairman, Mr. O P Bhatt. The bank had decided to rope in 300 new customers every year for each branch using initiatives. According to Mr. Bhatt, the bank could get a record US\$ 5.54 billion during December 2008, the highest amount collected by any bank in the country.

Bank of India is also on a branch network expansion spree. As stated by its Chairman and Managing Director, Mr. T.S. Narayanaswamy, the bank has obtained license for opening 130 branches this fiscal. They have inaugurated around 100 new

branches so far, taking the total branch network to 2,978. Another Public sector lender Allahabad Bank is on an expansion spree in South India in order to have a significant presence in all important business centers, this year. Bank's Chairman and Managing Director, K R Kamath said that the Bank has a network of over 2,230 branches in the country and an offshore branch at Hong Kong besides a representative office in China. It is now focusing on Karnataka and Kerala. The bank plans to open a zonal office in Bangalore and 10 more branches in Karnataka and two branches in Kerala.

During FY 2007-08, the IDBI Bank opened 44 branches as against an approval for opening 45 branches. The merger with United Western Bank had given a network of 232 branches and 16 extension centers primarily based in the western region. As stated by Mr. Yogesh Agarwal, CMD, IDBI Bank Ltd., this year, the bank has got the RBI license to open up 200 new branches all over India and also expand overseas. The Bank's branch network adequately covers the western and northern region. Accordingly, it will be expanding mainly in the south, east and north-east regions. It has launched the concept of city SME centers last year. Besides 200 new branches, it will have 24 city SME centers covering 143 branches across the country. Further, 100 branches will be specializing in agri-business. With the planned expansion in branch network and focus on building up the retail asset portfolio, it will also have 30 Retail Asset Centers (RACs) which will handle work relating to sales, credit, collections, operations etc. Each RAC will cover 10-12 branches. In parallel, our ATM network has successfully crossed the 900 mark and we will be crossing 1000 ATMs within few more days.

But expansion of the branch networks doesn't explain all the possibilities to come and raise its hands to zenith. Between 2004 and 2007, India's new private banks have grown their assets by 38% and their employee strength by 43%; for foreign banks, the assets have grown 27% and employee strength 22%. During this period, Indian public sector banks have seen their assets growing by 17% while the employee strength has actually gone down by 1%. According to an estimate of Indian Banks' Association, the country's premier banker body, between now and 2010 more than 63,000 public sector bank employees will retire and bulk of them are officers. Public sector banks, which collectively employ about 710,000 employees, need 500,000 new employees in next five years to maintain their growth.

The average age of a public sector banker is close to 50. In ICICI Bank Ltd, India's largest private lender, the average age of employees is 28. So, it must start recruiting new employees fast. But this is not an easy task for the bank management as it is not in a position to pay well to attract talent. Besides, the government policy on reservation comes in the way of talent hunt.

This period of the global financial crisis and domestic slowdown is the most opportune time for 28 public sector banks (PSBs) to regain the market share that they have lost. Since the tech savvy, new generation private sector banks and foreign banks have been allowed to enter the country, the public sector banks, though a dominant force in the Indian banking industry, have almost lost 30% of their market share. As on March 31, 2008, PSBs accounted for 69.9 % of the aggregate assets and 72.7 % of the aggregate advances of the scheduled commercial banking system. Today, they have a much better average capital adequacy ratio. The ratio, which was around 2% in 1997,

had increased to 13.08% as on March 31, 2008. The improvement in the capital adequacy ratio has come about despite significant growth in the aggregate asset of the banking system. With regard to the asset quality also, gross NPAs of the scheduled commercial banks, which were as high as 15.7% on end-March 1997, declined significantly to 2.4 % as on end-March 2008. The net NPAs of these banks during the same period declined from 8.1 % to 1.08 %

Several foreign banks are limiting their credit exposure, as their overseas parents face credit crunch and other problems at home following the global financial crisis. On being asked about the same issue on reluctance of foreign banks to provide credit to the industry, Deputy Chairman, Planning Commission, Mr. Montek Singh Ahluwalia pointed out that the Indian banks should venture into the areas hitherto dominated by foreign lenders. It is a wonderful opportunity for Indian banks to occupy the space. These fellows (foreign banks) are broke at home.

Pointing out that good clients were not facing any credit crunch, Mr. Ahluwalia also mentioned that it was the middle-segment borrowers who were finding it hard to secure funds from the banking sector. Good companies are now getting it (credit) normally. There are lots of companies in the middle segment so banks will be asked to lend them too. Mr. M V Nair, Chairman and Managing Director, Union Bank pointed out that the Public sector banks are in a better position to regain their position. For the first time, market share has not been lost since the beginning of the fiscal. With 100% core banking solutions, the Union Bank added 13.5 lacs customers during the third quarter of the current fiscal. It is getting huge business. Its core deposits have grown by 37% on year-on-year basis and therefore, it is very happy with its customer acquisition and growth.

2.2. Rapid Hiring Spree: A defensive Strategy of PSBs

Public sector banks in the country that account for about 70% of the industry are on a hiring spree to keep pace with their business expansion even as private banks are shrinking jobs. This year, hiring by public sector banks has been quite significant as currently about 12,000 supervisory and clerical vacancies are being filled up and many more vacancies are yet expected to come up. However, a few private banks are cautious about expansion, the recruitment outlook of the public sector banks remains healthy due to significant retirements and rural expansion plans.

Almost all the PSBs, including the country's largest lender, the State Bank of India (SBI), are in a brisk hiring mode, a move which is in sharp contrast to their global peers who have seen thousands of job-losses in the last one year. At present, SBI is in the way of recruiting 3,500 probationary officers. The SBI is hiring over 4,200 employees for its six associate banks - a development that comes within a few days of its plans to *recruit 25,000* people. The bank is also recruiting more than 1,300 customer relationship executives on contractual basis for itself and its associates. SBI is also hiring 1,200 customer relationship executives, while its associate banks are recruiting 140 executives. The various associate banks for which SBI is looking to recruit the staff include the State Bank of Bikaner and Jaipur (SBBJ), the State Bank of Hyderabad, the State Bank of Mysore, the State Bank of Indore, the State Bank of

Patiala and the State Bank of Travancore. There are over 1,000 vacancies each with State Bank of Hyderabad, State Bank of Patiala and State Bank of Travancore, between 240-440 employees would be recruited for each of State Bank of Bikaner and Jaipur, State Bank of Indore and State Bank of Mysore. As stated by the Chairman and Managing Director, Union Bank of India, Mr. M.V. Nair that this is true with most of the public sector banks. There is no recession in hiring. The PSBs are firming up plans to hire over 4,000 officers and 1,000 clerks this year.

Another PSU major, the Punjab National Bank (PNB), is hiring 377 managers and officers to support its expansion plans. The Delhi-based bank has invited applications for the posts of chief security officer, assistant general manager (treasury), chief manager (treasury) and other officers and managers.

IDBI Bank Ltd too has hired about 2,000 and is looking for another 3,000 while Bank of Baroda (BoB) wants to hire 3,000, including 1,000 officers, and Bank of India, 900, two-third of who are officers. Although most fresh recruitments are for Mumbai, they are not restricted to the city alone. In Chennai, Indian Overseas Bank will hire 2,300 and in Delhi, Punjab National Bank (PNB) will hire 600 officers in the next few months. Elsewhere, Andhra Bank in Hyderabad will hire more than 600 and the Mangalore-based Corporation Bank plans to hire about 900 clerks and officers in 2009-10. It has already recruited about 300 officers this year.

According to senior bankers, at least 40,000 have been hired by the public sector banks in the current fiscal and the figure will substantially go up next year. The number of people fired by private and foreign banks also runs in thousands. Many of them are direct sales agents (DSAs), who market credit cards, mortgages and personal loans. With the slump in demand for retail loans, banks are snapping ties with agencies that supply DSAs to them. A voluntary retirement scheme, introduced early this century, saw at least 11% of 870,000 bank employees marching out of public sector bank premises. Since then, banks have not recruited too many people while their assets have risen nearly three times, from Rs10.2 trillion in 2001 to Rs29 trillion in 2008. On top of that, a large number of employees have retired in past few years. They were recruited in early 1970s, after the nationalization of banks. At the end of fiscal 2008, public sector banks had about 720,000 employees on their pay rolls.

Some of the private banks that have aggressively grown their business, riding on the world's second fastest growing economy, are now shrinking their balance sheets while public sector banks are expanding by opening new branches across the country.

According to Anurag Khanna, CMD, Banknet India, a banking research company, new recruitments are to keep pace with the banks' expansion plans. The banks are adopting fast-track promotions to fill in any management gap. The Reserve Bank of India's emphasis on financial inclusion is also forcing public sector banks to hire more for rural areas and open branches there.

Another reason behind the sudden spurt in recruitment is the fact that unlike private banks, public sector banks cannot outsource many activities, including sourcing loans.

Apart from recruiting through a normal process of written examinations and interviews, banks are also going for campus recruitments and outright poaching—sometimes from fellow public sector banks. BoB and PNB also took officers on contract offering them higher pay packet by monetizing the perks available for officers

of similar grade but the system has been scrapped in the face of stiff resistance put up by unions. However, foreign banks have been mostly trimming their payrolls, with biggest of them, Citigroup, planning to trim down its headcount by over 50,000 employees across the world, which reportedly includes about 1,000 staff in India. Citigroup, which has already laid off over 25,000 people so far, plans to bring down its headcount to below 3,00,000 worldwide in the next few weeks, from more than 3,75,000 later on.

Despite low salary, many private sector employees are now approaching public sector banks looking for job security.

3. MANPOWER OF IDBI BANK LIMITED

Thriving organizations around the world are finding that one of the significant components to their success is building workforce excellence across cultures and job roles. They have recognized its key ingredient as the 'Outstanding human resources management'. IDBI has always focused on leveraging quality human capital and allowing employees to develop new ideas. It believes in providing excellent employee training and opportunities for employee growth. In addition, it supports human resources operations with efficient and effective IT systems that lets personnel spend time on banking instead of on paperwork.

In IDBI Bank Ltd., it was thought that the major challenge critical to both the transition and the merger, will be the element of human resources. As in any other major transition of this kind, several sensitive issues, ranging from pay packets to work culture, will have to be addressed. It later finalized that the SBU structure will, however, allow IDBI to retain the pay structure already prevalent at IDBI Bank. But the SBUs will be separate in every respect. They will be separately manned and will have separate compensation structures. Alongside, IDBI announced a voluntary retirement scheme (VRS) so that some of its 2,800 employees get a golden handshake designed on the pattern of the VRS which took place at the public sector banks recently. Since then, the IDBI game plan was aggressive. On the anvil was a move to expand beyond the shores of India and get into overseas markets. The Bank's CMD pointed out that without an overseas presence one cannot operate in the present environment if it's a bank of large size. One has to explore all avenues — joint ventures, subsidiaries and branches."

3.1. Organizational Structure

As an attestation of its customer-centric approach, IDBI Bank has effected enabling modifications in its organizational structure to make it adequately responsive to the financial requirements and goals of its clients. The earlier SBU-based operating model has been replaced with more effective and efficient "customer-focused vertical model" capable of delivering world class products and services. Entire spectrum of the Bank's business is now covered under six major business verticals, each focusing on distinct customer segments for achieving accelerated growth. Now each business

vertical is focused on a particular customer segment, three on the corporate side and three on the retail side.

The Corporate Banking Group has been reorganized into three verticals: Infrastructure Corporate Group (ICG), Large Corporate Group (LCG), and Mid-Corporate Group (MCG). Across the three Corporate Banking verticals, the Bank will follow a two-pronged strategy of growth through new customer acquisition and deepening of existing relationships with emphasis on fee income from products and services. The Retail Banking Group has been reorganized into three verticals: Personal Banking Group, SME Group, Agri-Business Group

Within the Retail Banking Group, the Personal Banking segment will focus on the personal banking needs of individuals, with emphasis on driving productivity improvements and rapidly building the network. SME is a new vertical within the Retail Banking Group that has been created to ensure that your Bank successfully taps into the opportunity provided by this high-growth segment. The Bank has developed an innovative credit delivery model for SMEs and has gradually been building up City SME Centers (CSCs). The CSCs would provide support in terms of loan processing of the proposals as also would undertake back office related activities to buttress the credit delivery mechanism. The dedicated SME Relationship Managers at branches would provide a single customer touch point to provide whole range of banking services with regard to SMEs. Similarly Agri-Business Group has also been created as a separate vertical to help your Bank profitably capture this emerging business opportunity while at the same time meeting its priority sector lending obligations.

With this organizational restructuring the Bank has attained complete organizational integration of all functional areas. Simultaneously, the internal systems and processes have been fine tuned to align with the changed structure for customer interface. This restructuring has been undertaken in keeping with our aspiration to be among the Top 5 banks by asset size & market capitalization in the next few years. This aspiration is backed by our cutting-edge technology platform and the skilled and dedicated workforce to efficiently deliver a wide array of products and services. Further, with a view to fructifying its aspirations, your Bank has consciously decided to adopt a Universal Banking model, pursue aggressive organic growth supported by acquisitions and leverage distinctive strengths vis-a-vis competition.

It is desired that the organizational restructuring would pay off in terms of profitability and business growth and thus enhance all the stakeholders' values. During the year 2007-08, the Bank increased its branch network by opening 67 more branches. In addition, a complete review was undertaken with regard to relocation of branches to more potential areas and 32 branches were effectively shifted to new locations. During the financial year 2008-09, the Bank has an ambitious plan for expansion of the network including its ATM network.

3.2. Employees

As on March 31, 2008, IDBI Bank had 8,989 employees, majority of who are professionals, holding degrees in management, accountancy, engineering, law, computer science, economics and banking. The relationships with the employees are

cordial and there are no staff unions IDBI Bank uses incentives in structuring compensation packages and has established a performance-based compensation system. A transparent system of performance measurement is in place. To encourage commitment to results and productivity, the Board of the Bank has approved an ESOS. Almost 50% of the employees are covered by the ESOS.

There is focus on training the employees on a continuous basis. The Bank has training Centre at Belapur near Mumbai where regular training programs are conducted and designed to impart the necessary skills to the employees including orientation sessions for new employees. Appropriate training is also provided outside the Bank's training Centre.

3.3. Workforce Management

Despite diverse customers, diverse colleagues, and instant messengers beeping in the background, companies around the world get the job done. The secret behind this is the 'Excellent human resources management'. High-performance organizations share common values that help them attract and retain people who can build their business. There are certain factors which help build excellent workforce. Some of them are:

- **Transparency coerces Success.** Employees want to work at places where their efforts will be valued. IDBI Limited is able to attract talent from India's top universities because of its record of success. As explained by O.V. Bundellu, executive director of the bank's human resources group, this Bank is one of the institutions that have contributed to the phenomenal industrial development of this country. Nevertheless, the bank's recruiting and retention strategy relies on more than just the bank's accomplishments. One of IDBI's core values is to leverage quality human capital. The company's human resources information system promotes transparency, which demonstrates that the institution respects employees. It is all based on merit. Employees know where they stand, what their goals are, and what they have to do for a promotion.
- **Potency Training.** High-performance work groups recognize that no one can be good at everything, so they give employees the opportunities to play their strengths. Training programs show that companies value learning and that effective training helps people develop their strengths. This offers a greater payoff than training that tries to turn weaknesses into strengths. Mr. Bundellu also said that many people approach IDBI for jobs, because there is extensive training. The bank's JNIDB, Hyderabad, trains company executives in finance and development. It also allows IDBI bankers to share their knowledge with their counterparts in nations that are behind India in the industrial development process. But that is not the only training opportunity available to bank staffers. The Bank also runs a lot of training programs on the intranet, on a self-service basis. This allows for ongoing training and testing in a range of competencies and creates a database of qualified employees to use for future promotion and placement opportunities.
- **Confiscating Opportunities.** All the emphasis on recruiting and training is of no use if the employees are not given the freedom to do their jobs. If smart people are

treated like they are smart, they will rise to the occasion. Knowledge workers want an assignment, a deadline, and a budget. Then they want to be freed up to do their job. An organization must allow the employees to do what they are best at. IDBI has been able to contribute to India's economic growth through a culture that allows people to take chances. The employees are free to operate as long as they are working in the best interests of the organization. Giving employees the latitude to develop new ideas has allowed the bank to grow with a lean staff. Employees are supported by a strong IT system that lets them spend time on banking instead of on paperwork. What generally takes months in an organization using normal processes takes only a few days at IDBI. IT is one of the tools that the Bank uses to become a valued financial conglomerate. They are creating one of the largest data centers in India to support banking. People hired by IDBI know they won't be pushing paper; instead, their work on modern IT systems will be part of India's ongoing industrial development.

- **Turning to be an Employer of Choice.** At IDBI the key to retention is the opportunities the company provides for people to become part of large, unique projects and to have avenues for learning. Not every organization can establish stock exchanges and launch an entire class of entrepreneurs, as IDBI has done, but excellent workplaces exist in every industry. As long as managers are willing to respect employees, build on strengths, and stay out of the way, companies will thrive.

4. ANALYZING AND INTERPRETING DATA

This section deals with only the demonstration of the results obtained with the help of various questionnaires. All the questions are not represented here, only the ones which are meant to be analyzed further are demonstrated below. This will help get a clear picture of the responses before anything can be interpreted or any kind of conclusion or recommendation can be given. This will provide a clear understanding of the responses which were given by the respondents. This representation of the data is done with the help of Microsoft Excel. The questionnaire consists mainly of three parts: Expansion of the Bank and Job satisfaction of existing employees; Recruitment; Training.

4.1. Expansion of the Bank and Job Satisfaction

The questionnaire on expansion of the Banking Sector and the Job Satisfaction of the existing employees of the Bank was designed for two categories of respondents. The first questionnaire was given to the general public to know about what they know about the IDBI Bank Limited and feel about its ongoing massive expansion drive. The second part of the questionnaire was given to existing employees of the Bank to know about the level of satisfaction the employees possess while working with IDBI Bank Limited. It was also to know what the existing employees feel about their own organization and whether they are in favor of the massive expansion drive undertaken by the Bank.

General Public. When the General Public was asked about whether they know about IDBI Bank Limited or not, 70% of the respondents answered positively that they know about the Bank. Therefore these 70% of the respondents were asked few more questions regarding the Bank to know about how much knowledge they possess regarding the IDBI Bank Limited. When these knowledgeable respondents were asked, 45% of them said that IDBI Bank Limited is a Private Sector Bank which is not the correct and up-to-date information. When IDBI Bank was not merged with IDBI and was a separate entity altogether, it was then a Private sector Bank but after it got merged the merged entity is a Public Sector Bank. It shows that the Bank has not taken proper initiatives to make the news public. Later when they were given a list of various services offered by the Bank and was instructed to mark whichever they know about the Bank; hardly anyone had the complete information of what all services are provided by the Bank. But when they were asked about if they have ever availed its any service(s), then 60% of them agreed that they have availed and among them each and every respondent was very much satisfied with the service as well as care they take while serving any customer. Everyone said that the kind of service they provide is highly appreciable.

The rest 30% of the respondents who were unaware of IDBI Bank Limited were asked to mention in which Bank they had their accounts and what all features they like about their respective Banks. They were then asked to resume filling the questionnaire from question five, where they were asked if all those services which they liked about their respective Banks would be made available at IDBI Bank Ltd. which will open near to their place, would they avail its service(s). 77% of the respondents of these respondents agreed that they would avail its service(s) if the Bank provides easy, faster and more efficient services than what their present Banks does.

Each and every respondent corresponding to the whole population comprising general public said that there is not enough number of branches and ATMs that IDBI Bank possess and considering that everyone was in the favor that the IDBI Bank should take certain initiatives to make the Bank more popular among masses. 92% of all the respondents said that the massive expansion drive undertaken by the Bank to add up more number of Bank Branches and ATMs is a good option to make the Bank more popular as well as prove to be a helping hand for all the citizens of India.

After all the questions were asked, all the respondents were told the correct answers to all the questions. This was done in order to make the respondents to gain a brief knowledge about IDBI bank Limited. This was a step taken in order to make the general public know about the services offered by the Bank and transmit the same to others as well.

Employees of the Bank. The employees of the Banks were introduced to questions corresponding to job satisfaction as well as on their implications after expansion of the Bank. First of all they were asked whether they were satisfied with the existing work culture of the Bank or not. 83% answered in favor of the work culture prevalent in the Bank. But almost each and every one i.e. 96% of the respondents said that further improvements are required regarding the same.

It was seen from the daily visit to the Bank as well as general interaction with the public as well as employees of the Bank that the General Public was not much

aware of the Personal Banking segment of the IDBI Bank Limited, that's why the employees of the Bank were asked if the public is very well aware of the Personal Banking service offered by their Bank. For this question 30% of the respondents agreed that the general public is not much aware about this segment. Therefore each and every respondent agreed that there should be some prompt initiatives to be taken by the Bank so that the people as soon as possible get to know about the Bank. Regarding the same 100% of the respondents said that expansion of the Bank i.e. adding more number of Bank Branches as well as ATMs is a very good option for making the Bank more popular among masses.

When they were asked about the benefits which they would receive if the number of Bank Branches as well as ATMs is increased, the respondents pointed out a lot of benefits viz., they will feel proud to work with such a big Bank, this will fulfill the Bank's primary objectives, this expansion will definitely prove to be a help to general public, some thought that further recruitment for the expanded branches would reduce the work load, few are with the opinion that they may get promoted or have a salary hike or may get transferred to a better branch which would be near to their home. Many were with the opinion that it will provide them with an opportunity to visit new places and meet new juniors.

The respondents also pointed out certain demerits of expansion such as increased internal conflicts, transfer to a remote branch, reduced quality of work load, will create family disturbance and environmental disturbance. Few also opined that this would make the employees travel far-off places as well as in some cases increase work load and more number of recruits may create a mess in the working place and more salaries to be paid by the Bank.

4.2. Recruitment

After going through responses from the questionnaire on the recruitment it is seen that at Branch level the recruitment is done mainly for the Grade-A (Assistant Manager) post. Those who have been working for more than five years with the Bank were recruited only through the Head Office Selection Process. But, since last 3-4 years the Bank is recruiting its employees mainly through campus selection. It can also be seen through the data collected which shows that 56.7% of the respondents are selected through campus recruitment drive while only 30% of the respondents are recruited through the Head Office Selection process. As the respondents mainly comprise of the fresh and new recruits, it confirms the fact. The data also shows that few new employees have also been selected through the All India P.O. Examination these days conducted by the individual Banks, which comprise of 13.3% of the total sampling population.

From these data it can be justified that after the Bank got merged in the year 2004, it is on its way ahead to fulfill its objective to become the fifth largest Bank. Therefore in order to acquire that esteemed position it is expanding its branch network and further to carry on the activities in the expanded branches also, it is on a massive recruiting spree. Therefore the best option available to acquire a bulk of the best talents is to recruit the candidates through campus selection.

But campus selection also has its own drawbacks.

- This kind of recruitment is both expensive and time-consuming.
- The recruitment to be done by approaching individual campuses wastes a lot of useful time.
- The schedules must be set well in advance as well as briefing program to be conducted before the students to make them aware of the organization also demands a lot of time.
- An employers' representative of the Bank has to spend a lot of time in the Campus itself to carry on the selection process which was meant to be spent in the Bank doing important assignments.
- Records of interview are meant to be kept.
- The recruiters are required to be trained well before going for recruitment. They need to know how to interview candidates, how to explain what the Bank has to offer and how to put candidates at ease.
- If any time the recruiter shows little interest towards a candidate or act superior, the Bank may lose a deserving candidate.
- The major drawback of campus selection is that it doesn't give equal chance to all the individuals as it is restricted to just that specific campus. The most deserving and talented candidate staying in a rural place, striving hard to earn livelihood may not get a chance to work with the organization.
- Taking the case of the Bank, as it is a PSB, the campus selection is done only at those Colleges/ Universities which are recognized by AICTE. Even there are top-class colleges which ranks much better in comparison and whose students are much more deserving but do not possess an AICTE recognition, are denied the opportunity to have such PSBs in their campuses for selection.
- There is less competition among the candidates for the vacant position in the case of campus selection as there are limited individuals struggling for the same post in comparison to All India Tests or P.O. Examinations.
- Proper review prior to selection of the College/University Campus must be done before approaching any.

Selection Procedure. Effective recruitment is very essential for any organization these days. It is not as simple as is thought of (Dessler, 2005). Similarly campus recruitment is not just about approaching any Institution or University, creating a pool of candidates, interviewing them equally in order to fill a large number of anticipated openings. The recruitment and selection procedure should be designed keeping in mind the requirements of the job, number of vacant positions to be filled, number of applicants that are to be called for the process, resources that are used and to be used in the entire process etc. Therefore it is very essential to carefully design the recruitment process and adopt the best measures to acquire the best talent.

Keeping in mind the above necessities, later, data regarding the method of selection procedure adopted by the Bank was taken into account. The data regarding the same was collected and it was seen that 57% of the employees have been selected by the process of Group Discussion followed by a Personal Interview. This group mainly forms the population of employees who have been recruited in their respective Campuses while 43% of the employees have been selected by the process of Written

Test followed by a Personal Interview and these are the employees who have been selected directly by the Head Office or through All India Bank P.O. Examination.

Satisfaction Level for Selection Procedure. When the same respondents were asked about their satisfaction level regarding the procedures adopted for the selection process, it was seen that 73% of the employees were dissatisfied by the selection procedure presently adopted by the Bank. When they were asked about their apprehensions regarding the selection process, they replied that it should be more challenging and various other skills essential for posts should also be given certain credentials in the selection process. According to the employees only Group Discussions, Written Tests or Interview cannot judge a person with the skills required for the particular job. As the competition is growing day by day, an organization at any point of time may have to face any kind of bizarre situation and this becomes the responsibility of the employees of that organization to tackle that situation tactfully. Bank being a service industry needs to be much more tough and on its toes to serve the customers anytime, anywhere. Therefore, its employees also need to be that much capable as to tackle any kind of situation that comes in way. So, from the very first step i.e. the recruitment itself proper selection of the deserving and potential candidates should be done and therefore they should be judged for various other skills as well besides knowledge and experience.

It was also acknowledged that particular skills are important for a particular kind of job so in the selection process, those skills particular for that particular vacant position should be considered while selecting a candidate. In a Bank, there are different kinds of work that are to be handled by different personals. Some are assigned only the paper work, some have to meet clients daily, some have to deal with the customers every moment, some have to deal with the staff of the Bank itself, etc. all these requires different skill sets in its employees. Therefore a GD or Written test or an Interview cannot judge all these skills and the parameters required for a specified job. Thus there is a need to understand and analyze the requirements of the vacant position and accordingly design a selection process which can help filter the most deserving and potential candidate amongst the huge mass.

Major Attractions for a Job at IDBI Bank Ltd. For recruitment and selection procedure to be a successful endeavor it not only depends on the effectiveness of the recruiters but also the choice of the candidates should be borne in mind. It should be first analyzed that why a candidate should choose to be an employee of your organization. It should also be analyzed that what is the need of the hour of any candidate who will be applying for your organization. Therefore it becomes the responsibility of the organization to show some positive and true pictures of itself to the candidates so that they get attracted to join the organization. But before that the organization should take pains to understand the needs of the prospective employees.

Keeping this aspect in mind the respondents of this research work i.e. the employees of the Bank where asked about the factors that motivated them to join this Bank. The respondents were given certain factors and were asked to rank them. This data showed that the major factor that attracted them was the job vacancy. It was the need of most of the employees presently working with the Bank. Therefore it becomes the thrust area where the Bank should shift its attention to. This factor can be attributed

to the economic scenario of the country. The private sector companies are in a bad shape due to the economic slowdown in the country. The private and foreign companies due to the great losses which they are incurring are busy consolidating themselves through mergers and acquisitions. Therefore the individuals working with those private sector companies are readily handed over with pink slips in order to leave that organization. So there is a hue and cry for job vacancy in the present scenario. Thus a job vacancy in any organization acts as a sign of relief for those individuals striving hard to earn bread and butter after getting a pink slip.

The next major factor that motivated the employees was the reputation of the Bank. Also another most important factor is that of the IDBI Bank being a Public Sector Bank attracts a large mass of candidates to apply for the job in this Bank. Getting a job in a reputed organization and that too in a public sector company is a great luck for any educated and knowledgeable candidate. Getting job in these kinds of organizations is a great luck because it gives job security to all the employees whoever is serving that organization and whatever the economic situation may be. Therefore in this bad economic scenario a job vacancy in a public sector organization serves much more of a God gift to any individual.

4.3. Training

As soon as a selected candidate keeps his first footstep into the organization, he becomes a responsibility of the organization. He now becomes a member of a new family. The elder members are required to nurture and spoon-feed the new member and that member, at the end, has to prove himself as an asset to that new family. That is the reason a new incumbent has to be well aware of the activities of his organization. He needs to be well versed with the Company's vision, mission, objectives and the policies adopted. He must also know his colleagues well so that he can learn from them as well as work with them effectively. Thus, it is required to induce to new incumbents properly.

According to the analysis done, it can be seen that the induction training at IDBI Bank is given importance as well as is well planned but the time duration for which it is conducted is not sufficient. Many respondents say that the duration of this training should be increased so that the new incumbents can learn the whole procedures of working as well as how, when, where, what to work. Basically, it is all about introducing the individual to his or her new colleagues, familiarizing the new employee with the work place and helping to reduce first-day jitters. It typically includes information on employee benefits, personal policies, the daily routine, company organization and operations and safety measures and regulations as well as facilities tour (Desler, 2005).

The importance of induction training should never be underestimated. Without basic knowledge about things like rules and policies, new employees may make time-consuming or even make dangerous errors. Their performance as well as the Company's performance may suffer. Furthermore, it is not just about rules. It is also about making the new person feel welcome and at home and part of the team, all potentially important if you want him or her to be productive. Therefore, it is "making

the new recruit feel a productive part of a team as soon as possible” (Charlotte, 2001). For all this sufficient time should also be allocated. According to the data received 70% of the total respondents say that the induction training is not of sufficient duration. When the respondents were interviewed they said that earlier it used to be a two weeks program but these days it has been shortened to just a week which according to them is a very short period to learn all the objecties and policies as well as intricacies involved in holding the responsibilities at a particular position. Thus, the duration of training program plays a very significant role in learning, grasping as well as applying the same into work.

Again the data reveals that 80% of the respondents are with the view that the senior management doesn't take interest and doesn't spend time with the new staff during induction training. Induction training is conducted so that the new joinees can adapt to the work culture of the organization as well as know their colleagues and their supervisors/seniors. This helps them to approach their seniors without any hesitation and when and where required to have a clear understanding of any problem areas faced by them. This inturn, would help them better understand the work and perform it as required.

70% of the respondents believe that the induction training is not properly evaluated and improved. As the time passing by, competition between organizations is increasing day by day. As a consequence of it, every new day various new kind of problems arise. Daily customers come with new kind of troubles. Therefore customers are to be dealt with very carefully and tactfully so as to fulfill all their needs and keep them satisfied as to make them lifetime customers of the Bank. In order to make the employees competent enough to handle all such kinds of situations they need to be trained accordingly adopting new measures. These training programs must be evaluated from time to time and must be improved accordingly so as to suit the desired requirements of the time. An outdated training program may not help the employees solve any problem instead may deplete the situation further more.

When the employees were asked if they are sponsored for training programmes on the basis of carefully identified developmental need, only 30% of the respondents agreed to the fact. Rest said that hardly any significance is given to the training needs of the employees. It is only that regular training programs according to the syllabus as per the schedule is given without any revision into it. This type of training implementation can just prove to be a sheer wastage of trainers' time, trainees' time, various resources utilized and not to forget money expended on such kind of training.

74% of the respondents say that they are hardly involved in determining the trainings they need. Again this kind of training without understanding the needs of the trainers is a sheer wastage. It is the trainees who need to get the benefit out of these training programs and without knowing their requirements nothing beneficial can be done nor any kind of value addition can be done.

Before any training is to be provided it becomes the responsibility of the trainees' supervisor to brief them about the training that on which area training is to be given to them, what is intended to be learned by them, what all is to be kept in mind etc. These guildlines help the trainees' to understand the need of the training well and learn exactly what is intended to be learnt out of that training. here, in the Bank, 80% of

the respondents say that HRD doesn't brief the employees before going for any training program. Such kind of training may not prove to be beneficial enough for the employees and may not give the desired results as is intended.

As the employees were asked whether they get enough and adequate time to reflect and plan improvements in the organization, 83% disagreed with the fact and said that the training programs are of such short durations i.e. for a week and even no time is given nor any debriefing session is conducted to know what is being learnt and implement the learnt stuffs while working. The real purpose of such trainings is missing. The main purpose of giving any training is to learn and implement the same while working so that the work can be easily, more effectively and efficiently and won't be any more a time-consuming process. If all this is not met, the reason for conducting training makes no sense at all. Even 57% of the respondents said that the external training programs are not carefully chosen after collecting enough information about their quality and suitability.

5. RECOMMENDATIONS

After analyzing the data, it has been seen that there are various positive aspects prevailing in the Bank. Along with these positive aspects there are a few negative too. Thus taking certain corrective measures in order to change the apprehensions of the employees regarding the existing recruitment and training policies will make everything perfect and according to the needs of hour. In order to make an organization successful it must take sufficient care of its most valuable asset i.e. the employees. This care should start from the very beginning i.e. from recruitment.

5.1. Recruitment

After the in-depth analysis of the data that has been collected it has been seen that the employees are not fully satisfied with the existing procedures of the Bank. Thus to have the best Human Resource base, there should not be any loopholes left. Therefore there are certain areas which if taken into consideration, the massive and rapid recruitment drive of the Bank could be made more effective and efficient.

- More number of All India Examinations should be conducted by the Mumbai Head Office. This examination was conducted once in January 2009. It should be made more frequent i.e. maybe twice in a year. This would help the Bank select its employees from a broader base and best talents may be screened from all over the nation. Every individual may get an equal chance to compete for a specified post.
- If campus selection is done to recruit the employees for posts in local branches, a list of best colleges must be prepared and later on approached to do the same.
- All recognized universities must be visited for campus selection. 'Recognition from AICTE' should not be made a criterion to select the colleges being approached for Campus selection. This kind of barrier may prevent the best talents to even compete in the race.
- The Bank representatives visiting the Campuses must be well prepared before approaching any campus.

- A good and well prepared presentation must be prepared depicting all the achievements and the positive reactions and attitudes of the employees working in the Bank as well as that of the new joiners' so that it creates an optimistic bent of mind of the fellow students of the respective campuses.
- As the present employees were not satisfied with the present selection methodology adopted by the Bank, therefore some new and challenging procedures must be adopted. Depending upon the vacant job and the description of the job to be performed by that employee, various simulation exercises can be given to the applicants. This would help judge the candidates' potential whether he/she will be capable to perform that job effectively and efficiently or not.
- Besides GD, Written tests and interviews, presentation skills should also be inculcated in the selection procedure as this skill has become a must for every person these days because every employee has to deal with others at any point of time during his service tenure.
- As the job vacancy is the major factor that attracts the candidates towards joining the Bank, therefore IDBI Bank should make sure that the job vacancy in the Bank is made known to the public at large. This can be done by giving well designed and planned advertisement in the Employment Newspaper as all job seekers refer that newspaper. As well as it must also publish its ads in the local dailies. It must also give the ads in various job web-portals viz. Naukri.com, FirstNaukri.com, TimesJobs.com, Jobstreet.com, MonsterIndia.com, etc.

5.2. Training

- The duration of induction training should be increased. As one week induction training program is not enough to suffice the training needs of the new incumbents. It should be made at least a fortnight program. After attending the induction training the new joiners' should be assessed for how they reflect the learnt knowledge into the work done by them.
- Senior management should be made to take interest in the induction training given to the new incumbents. This can be done making the trainees' fill a 'feedback form' containing the photographs of all the trainers'. The trainees' will be asked to write some description about each trainer and what they feel about that person. This would help get the best information about the capability of that trainer and as provide with an evaluation parameter on which the trainers' can be rated and judged accordingly.
- From time to time the induction training program must be evaluated and revised according to the needs of the situation and present scenario as an outdated training cannot help the new employees by any means rather it may prove to be counterproductive.
- Training given to any employee must first be screened as to how that training will benefit that particular employee. If it is not according to the desired needs of the employee or not relevant to the present work description of that employee or doesn't cater to the developmental needs of that employee, that kind of training doesn't make any sense for the employee as well as the organization. That will

only prove to be sure wastage of time as well as resources. Therefore before sending any employee for any training program, it must be first ensured that that training program will benefit the employee with one or the other aspect. It is very essential to consult that particular employee at his training needs before he/she is sent to any.

- Conducting briefing session before the employees go for training is very essential as they are required to go with a clear understanding of what they are supposed to learn in the training. They should be evaluated regarding the training program and the ratings given here must be added in the performance appraisal forms. This will make the trainees' more attentive towards the training programs and as a whole make the training program a successful one. This will also make the HR department serious about the proceedings as they will be responsible for evaluating the same and further recommending any changes if any.
- Any employee when rejoins the Bank after attending any training program, he/she must be made to write a report regarding the same, of what all things he/she has learnt in that training program and must be put in incubation for some time to reflect the same in his daily workings as well.

6. CONCLUSION

IDBI Bank's expansion will make it the most trusted financial conglomerate taking the care of both industrial development as well as the common man. This will lead to attracting a lot of prospective customers. As the Bank has divided itself into six verticals each serving different purposes, it will help create a revolutionary change in the whole of the economy. This expansion will bring a lot of development in the industrial, agriculture, small and medium scale sector etc. All these changes in the economy will definitely attract the man power base to be a part of this revival. But during the phase of expansion it should keep in mind certain things which would affect the common man as well as the existing employees of the Bank.

- Since many people are not aware of IDBI Bank Limited, so expansion will prove to be a good option to make the Bank popular. Besides that the Bank should take some more initiatives to make the public more knowledgeable about the Bank and the services offered by it.
- Since, it has only been a few years that it has become a public sector entity catering both industrial development as well as commercial banking, so it needs to make the general public aware of it. Thus, it should go for extensive marketing and advertising campaigns, so that people can come across such ads and know more about the Bank. It can go for many marketing strategies so that people see and remember about IDBI Bank Limited.
- Going for expansion is a good option as it will make the Bank more popular among masses, give employment opportunities to many, provide better facilities and accessibility to the public, provide loads of benefits to not only the public but also to the existing employees of the Bank.

IDBI Bank Limited desires to position itself as the fifth largest of all Banks, therefore to accomplish its desires it is expanding itself countrywide and in order to

carry on its activities it is on a massive recruitment drive. Thus, it will generate a lot of employment opportunities for the job seekers as well as those talents who have been handed a pink slip in their private/ foreign organization.

Expansion of the Banking Sector especially the Public Sector Banks will prove to be a revival of the whole Indian economy. Expansion of the public sector banks will provide the Government with the major chunk of the banking sector shares and therefore, the authority. This will provide a chance to the PSBs to come at par with the private and foreign players in terms of both technology as well as the man power base. These PSBs have the potential to provide the individuals of this country a sense of job security and the power to have their own say.

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CONSIDERATIONS CONCERNING THE BANKING CREDIT AND ITS OPTIMIZATION

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ABSTRACT: *The firms could take into consideration internal or external sources for financing, the differences between them being connected with the stability, independence and cost. Even the internal sources ensures a high degree of independency to the firm, they are not always efficient. Under these circumstances and the conditions of insufficient self-financing, the existence at national level of the tendency of undercapitalization and increase of their debt level, the Romanian firms make use more and more of external sources of financing, especially the banking credits. Therefore, in this study we intend to present a model for optimization the cost of the financing through the bank credit. This model is going to help the managers of the companies to find innovative solutions and to assure the competitiveness and the development of their companies.*

KEY WORDS: *sources of financing; external sources of financing; cost of the banking credit; optimization of banking credit*

JEL CLASSIFICATION: *M10*

1. INTRODUCTION

The integration in the EU prefigured new opportunities of development for the Rumanian companies, but, at the same time, the increase of the competition determined new challenges justified by the growth of the competitiveness and the quality of products and of the offered services.

As a consequence, at the national level were identified the new possibilities of improvement of the competitiveness of the Rumanian companies to face the new challenges by concerning measures:

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- the encouragement of the productive investments and the preparation of the Romanian companies in order to resist in front of the internal competition;
- the development of the business infrastructure and the support services for the affairs;
- the increase of the accessibility on the external markets;
- the follow-up of the efforts of the internalization of the companies.

An intrinsic constituent of this process is represented by the access of the companies to the financing which must be made in correlation with the adopted strategy of development, because this development needs time and, necessarily, the existence of the financing sources. The choice of these sources depends on the financial structure of the company, on its financial situation. So, companies can choose between the internal sources and the external sources, the difference between these both being represented by their stability, their independence, their cost and the priority of the owners of capital in the situation of a bankruptcy.

Even if the internal sources are most often preferred by the managers because they assure the independence of the company, these are not always sufficient. In that case, companies use the external financing sources which also have advantages as, in the case of the borrowed (taken) capital, the deductibility of the spending (expenses) with the interests, what makes them less expensive.

In the context of the insufficient self-financing, the national tendency of de-capitalization and of growth of the degree of debts (exception making companies quoted (esteemed) on the market of capital), the Romanian companies are using more and more the external sources of financing (Neagu, et al., 2006).

2. THE STRUCTURE OF THE SOURCES OF FINANCING

The structure of the sources of financing is different according to the type of the company. So, we can notice the evolution of the preferences of the companies in term of financing in table 1.

The main causes which determine the preference of Romanians for their own sources were represented by the cost of the capital, the accessibility of these sources, the financing policy, and the impossibility of obtaining capital by using the other sources. But this capital was not used for productive investments, as we can see in table 2.

Table 1. Financing sources preferred by the quoted companies

Own sources
Bank credits
Leasing
Capital provided by strategic investors
Commercial credits
Capital provided by the Business Partners
Other sources of capital

Source: White Charter of SMS

All analyses indicate that credits and loans are the main source of finance for the SME sector in Europe. Therefore, most European SMEs are very dependent on bank lending and changes in bank behaviour affect SMEs' access to loans. For many reasons banks are paying more attention to the relative riskness of their clients.

To estimate the risk of their client firms, banks also need more information than before. Capital structure that has high debts and low equity makes firms riskier and it is a barrier to investment. Besides, taxation that favours debt to the detriment of retained earnings and new equity has been recognized as an obstacle to building stronger balance sheets. Therefore, riskier SMEs are likely to face higher interest rates and higher collateral requirements. Also, business start-ups and SMEs which want to enter new markets, may especially suffer from shortages regarding finance.

Table 2. Types of the investments (2003-2008)

Trade vehicles	13.4%
Productive or commercial assets	34.1%
Lands	36.6%
Intangible assets	2.1%
Facilities for constructions	7.0%
Vehicles for the transport of the passengers	5.3%
Other investments	1.5%
Total	100.00%

Source: White Charter of SMS

On the other hand, the SME presents the following structure of financing (table 3).

Table 3. Funding Sources

Funding Sources	Micro enterprises	Small enterprises	Medium enterprises
Funding from Own sources	70,27%	49,29%	28,35%
Funding primarily from own sources (more than 85%)	17,78%	17,77%	14,95%
Funding by own sources and bank credits	10,10%	27,49%	52,06%
Funding primarily by bank loans (more than 50%)	1,28%	4,27%	3,61%
Funding from other sources	0,57%	1,18%	1,03%

Source: White Charter of SMS

The access to bank loans is also difficult because of insufficient collateral. But this problem can be overcome through guarantees given by public or private guarantee or mutual guarantee institutions. The use of guarantees, thus, is one factor which facilitates access to loan finance for SMEs. In particular, guarantees should be used to help innovative SMEs finance research and innovation (including eco-innovation), and for business transfers. (Giurca, 2009)

In spite of the efforts to support the companies to get itself the sources of financing and in spite of their progresses registered with regard to the previous periods,

there are still difficulties concerning the limited resources, incapable to answer quickly to the cyclic and structural changes of the global economy.

Because of the lack of the experience and of the tradition as regards the acquisition of the resources on the capital market, the improvement of the conditions of the credit further to the growth without precedent of the competition in the banking sector in Romania, several companies begin to use the bank credit in order to finance their activities.

3. THE BANKING CREDIT-SOURCE OF FINANCING

The banks grant the individuals and the companies with short-term, medium and long term credits. These credits may be awarded with or without registered, with or without guarantees, on credit objects or globally. The economists (Rose, 2003) have identified the credit as an amount of money that a bank gives to a company when its current assets are not fully financed by the cash from suppliers and creditors and when this deficit is not covered by the working capital. A better definition is that of the European Central Bank: "... monetary relationship between an individual or a company named creditor, which gives an amount of money to another person named debtor or who sell goods and services without paying immediately by practicing an interest rate based on the risk assumed by the creditor or depending on the reputation of the debtor"

Generally, the need of credit is determined by the inability of own funds of responding to the expenses generated by the complex activity of each company (production, investment, trade and so on). In every company there are imbalances in the case of the treasury or of the administration of the company.

That is why the treasury credit is the most sought from the bank credits. The treasury credit is necessary when the current asset of the company cannot be entirely assured by the collections and the working capital. We can assert that within the framework of the operational credits, the treasury credit is the most sought. Every company holds significant current assets assured by the activity of production and by the debts on the clients. The sources of the financing must be sufficient for every company in order to assure the necessary of the current assets.

In our country, the working capital is, generally, more important than in countries with an advanced economy because of the rotation speed of the current assets which is less raised, as well as because of the longer cycle of manufacturing. For these reasons and for the limits of the sources of the internal financing, we can notice that demands for bank credits are more significant in our country.

The entire necessary of funds and credits depend also of how the company is administrated. An effective administration of capital assures the rotation of inventories, the recovery of the immobilized debts, the increase of the monetary advances received from the partners, what determines a reduction of the necessities of credits for the companies with a proper funds administration.

As we have already clarified, a fundamental problem of the bank credit is represented by the cost of this credit, and, specially, the cost of the interests. The diversification of the forms and methods of the bank credit has determined the

diversification of the methods of the interest calculation. The simple interest, which represents the income of the bank for the amount borrowed from a client and when that interest is not capitalized, became compound interest.

In the banking practice the annual rate of interest is different depending on several factors.

A first factor is the *term of the credits*: credits are distinguished from a long-term, medium-term and short term. In most cases, the annual rate of interest is not commensurate with the length of credit. It happens because the administration expenses of the credit are recovered over a longer period and, secondly, long-term credits are contracted for investment projects with important values and with implementation terms based on more than five years.

The credited activity (funds for production, for investment, for transport, for trade, for consumption, etc.) represents another factor. The interest rate is higher for the consumption credit and lower for the productive investments credit.

The credit worthiness and the history of the debtor are taken into account to differentiate the annual rate of the interests. A customer who have a good reputation and who can offer strong guarantees for the credit will have the possibility of obtaining a credit with a less high interest rate.

The strategies of the creditor, which depend on the political, economic and social situation, the interests of the shareholders for short, average and long term, are the other factors which determine the differentiation of the interest.

For example a bank overcapitalized and which practices passive interests less high than those of the market will intend to place its resources with less high interest rates. The periods of political and social instability are characterized by higher interest rates. If the shareholders of a bank, generally the state, are interested in the stimulation of certain field of industry, the interests rates will be less raised in this sector.

The inflation is also one of the factors which determine the differentiation of the interests. The rate of the interests is proportional with the rate of the inflation. So, when the rate of the inflation is raised the credits will be more expensive because of the cost of the resources which will be also more raised. Banks will be interested to attract the money supply of the population only if the passive interests paid to the potential customers for their deposits will be superior to the rates of the inflation. Otherwise, the available funds will be transformed in the others foreign currencies with a superior degree of stability or they will be used for the purchase of goods and services.

The dimension of the credits offer on the financial market can be also considered one of the factors for differentiation the interest rates. A banking market characterized by an offer of credits higher than the demand or than the power of absorption of the real economy, will be characterized by a reduced interest rate .

The report between the offer and the demand for credits on the various national or regional markets determines the migration of the credits according to the level of the interest rates. The modern infrastructure of international communications and the facilitations offered on this base by the banks have determined a migration of the companies towards other markets which offer credits to interest rates less expensive.

4. MODEL OF OPTIMIZATION OF THE COST OF BANKING CREDIT

The role of this study is to offer solutions of optimization of the cost of the financing through the bank credit, in order to help the managers of the companies to find innovative solutions and to assure the competitiveness and the development of their companies.

The elaborated model presumes that the financing is made by bank credits for a certain period; the necessary resources are got bit by bit, at equals intervals, in order to decrease the expenses with the interests.

For the beginning, this model considers that the company which seeks and obtains the bank credit knows that there will be moments in its evolution when it will have not sufficient funds.

Supposing that:

S - the total amount necessary for financing;

s_1 - the size of a loan instalment;

T - duration of an interval between the obtaining of two loan instalments;

c_a = cost of a loan instalment;

s_2 - the amount/sum which remains to be reimbursed from s_1 ;

$c_s = i$ - the interest rate paid for the received credit;

c_p - unitary penalty (on time unity and on currency unity) for the lack of funds which can appear at a certain moment;

t_0 - the period for which is done the loan necessary for development, staggered in equal periods of size T;

n - the number of instalments in which it is obtained the total sum necessary for financing by S currency units;

T_1 - the period in which we have to pay the interest, correspondingly to the receive the loan instalment;

T_2 - the period in which we have lack of funds and we pay certain penalties/expenses.

Dates can be represented as in figure 1.

The function which returns the credit charges for the period T is:

$$C_T(s_1, s_2) = C_a + \frac{1}{2} s_2 c_s T_1 + \frac{1}{2} (s_1 - s_2) c_p T_2 \quad (1)$$

For whole period t_0 the credit charge is:

$$C(s_1, s_2) = \left[c_a + \frac{1}{2} s_2 c_s T_1 + \frac{1}{2} (s_1 - s_2) c_p T_2 \right] n, \text{ where } n = \frac{t_0}{T}. \quad (2)$$

From the resemblance of the two triangles above, we obtain:

$$\frac{T_1}{T} = \frac{s_2}{s_1} \text{ and } \frac{T_2}{T} = \frac{s_1 - s_2}{s_1} \tag{3}$$

Because of the fact that $\frac{t_0}{T} = \frac{S}{s_1}$ the function cost becomes:

$$C(s_1, s_2) = \left[c_a + \frac{1}{2} s_2 c_s T_1 + \frac{1}{2} (s_1 - s_2) c_p T_2 \right] \frac{t_0}{T}, \tag{4}$$

which means:

$$C(s_1, s_2) = \frac{S c_a}{s_1} + \frac{S^2 c_s}{2 s_1} t_0 + \frac{(s_1 - s_2)^2}{2 s_1} c_p t_0 \tag{5}$$

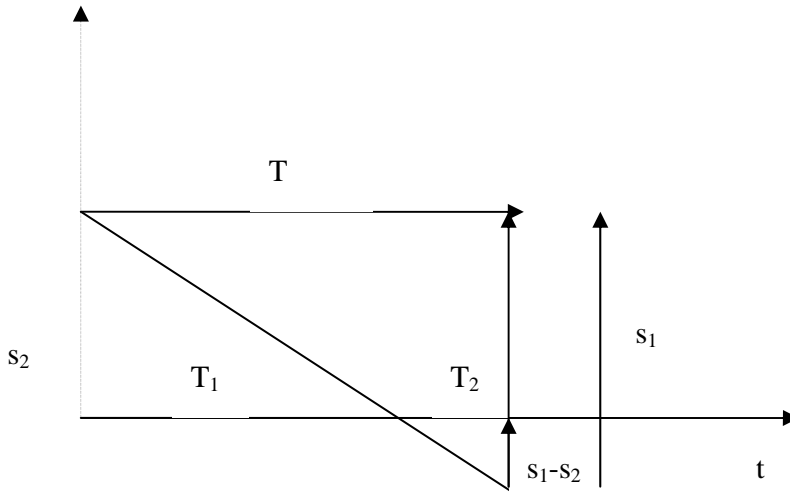


Figure 1.

And its optimal will be, $\min. C (s_1, s_2)$, when the variables are s_1 and s_2 . Using the algorithm in order to determine the points of extreme, we obtain:

$$\frac{\partial C(s_1, s_2)}{\partial s_1} = -\frac{S c_a}{s_1^2} - \frac{s_2^2 c_s t_0}{2 s_1^2} + \frac{(s_1 - s_2)^2 c_p t_0}{2 s_1^2}; \quad \frac{\partial C(s_1, s_2)}{\partial s_2} = \frac{(c_s + c_p) s_2 - s_1 c_p}{s_1} t_0 \tag{6}$$

Calculating the system:

$$\begin{cases} \frac{\partial C(s_1, s_2)}{\partial s_1} = 0 \\ \frac{\partial C(s_1, s_2)}{\partial s_2} = 0 \end{cases} \tag{7}$$

We obtain the optimal solution:

$$s_{10} = \sqrt{\frac{2Sc_a}{t_0c_s}} \sqrt{\frac{c_s + c_p}{c_p}}; s_{20} = \sqrt{\frac{2Sc_a}{t_0c_s}} \sqrt{\frac{c_p}{c_s + c_p}} \quad (8)$$

And the point (s_{10}, s_{20}) it's the minimum point.

As a consequence, we can have a minimal cost if:

- The optimal dimension of a slice is s_{10} and
- The optimal dimension of monetary stock available is s_{20}

The optimal duration between two slices of loans is:

$$T_0 = \frac{s_{10}}{S} t_0 = \sqrt{\frac{2t_0c_a}{Sc_s}} \sqrt{\frac{c_s + c_p}{c_p}} \quad (9)$$

And the optimal number of slices is:

$$n_0 = \frac{S}{s_{10}} = \frac{t_0}{T_0} = \sqrt{\frac{St_0c_s}{2c_a}} \sqrt{\frac{c_p}{c_s + c_p}} \quad (10)$$

The minimal value of the credit cost is:

$$C_0 = C(s_{10}, s_{20}) = \sqrt{2St_0c_ac_s} \sqrt{\frac{c_p}{c_s + c_p}} \quad (11)$$

Case study:

A trading company needs a credit of $S = 1,000,000,000$ UM/year, $t_0=360$ days. If the cost of an instalment is $c_a = 7,200,000$ UM, the annual instalment of the interest is $i=0.09$ (9 %), and the unitary penalty for the lack of funds is $c_p = 0.16$ UM/day.

According with the presented model we obtain:

$s_{10} = 500,000,000$ UM - the optimal dimension of a loan instalment,

$s_{20} = 160,000,000$ UM - the optimal dimension of the assured fond

$n_0 = 2$ - two instalments

$T_0 = 180$ days - the optimal duration between two instalments

$C_0 = 28,800,000$ UM - the optimal credit cost

If we not allow the lack of funds, $s_1=s_2=s$, $c_p=0$ and the function that determines the cost of credit will be:

$$C(s) = \frac{S}{s} c_a + \frac{1}{2} s c_s t_0, \text{ which is a function with a single variable.}$$

We determine the minimum for this function and we will obtain:

$$s_0 = \sqrt{\frac{2Sc_a}{t_0c_s}}$$

$$T_0 = s_0 \frac{t_0}{S} = \sqrt{2 \frac{t_0c_a}{Sc_s}}$$

$$n_0 = \frac{N}{s_0} = \frac{t_0}{T_0} = \sqrt{\frac{2St_0c_s}{2c_a}}$$

$C_0 = C(s_0) = \sqrt{2St_0c_a c_s}$, with the similar notations.

5. CONCLUSION

The model can be also used in the case of a company who envisage the development by the financing of several objectives. In this situation we determine the optimal cost of the financing as the optimal cost for every objective.

Determining the cost of the financing in a rigorous way, the managers of the companies can make the best decisions, the decisions which should follow the following stages:

- the choice and the maintenance of an adequate financial structure - guaranty from the current and next profitability of the company, from the refund of the credits in the case of a use of this one as external sources of financing.
- the optimal maintenance of a rank of debts because of the report cost - benefice of the debts.
- the follow-up of an optimal structure of the capital according to the strategy of the financing.
- the follow-up of one of effective political debts capable to offer advantages to the creditors and to the shareholders.

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THE MANAGEMENT OF A PORTFOLIO IN THE CONDITIONS OF ECONOMIC CRISIS

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ABSTRACT: *The need for money is one of the main financial goals of any company. Such needs have led to specific segments of demand and supply that demand for money and the money supply, in particular capital. Were created following specific markets: financial markets, with specialized division of labour in money markets and capital markets. Capital market is to supply and demand for medium and long term capital, with the same role as the financial market in general, having featured the long duration of maturity. From the viewpoint of the agents involved two types of markets that is the primary market, which are negotiated in the presence of primary and secondary securities issuer, that and his participation, and market secondary market investors, financial flows are directed to a investor to another. Institution typical secondary capital market is the stock market. Coverage of financial instruments, according to EU directives in force, is broad, including both tradable capital market instruments and money market instruments. Investment is defined in national accounts as gross fixed capital formation is the value of durable goods purchased by the production units to be used at least one year in production processes. The investment flow is therefore measured over a period, often a year, noted that the yield from an investment is proportional to the risk assumed. Investing in shares of the opportunity to diversify revenue and achieving consistent earnings, earnings from sales and purchases of shares may be significantly higher earnings from a bank.*

KEY WORDS: *capital market; crisis; loss; stock exchange; shares; portfolio; portfolio management*

JEL CLASSIFICATION: *G01, G11*

1. INTRODUCTION

Any modern economy, competitive and able to adapt to current requirements of globalization can not be conceived without the existence and functioning within it

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an efficient capital market. Capital is the lifeblood that feeds the economy and the channels through which run the sap must be properly dimensioned for sufficiency and economic progress should not be questioned. Capital market in economic development complexity brings some benefits of which we mention: the efficiency, competitiveness and creditworthiness of the financial system. Capital market in any modern economy, a viable alternative financing.

In Romania, the capital market formation, regulation and its development is a necessity in the complex process of creation and functioning of market economy mechanisms. The role of stock exchange in an economy is amplified as the diversification of products and exchange transactions, evolving from a simple "meeting place of demand and supply of capital to cover the complex mechanisms that allow the risk of loss from fluctuations of the securities, and increase return on investment and capital market.

Degree of interest which raises capital market in Romania for a growing number of potential investors, owners of available resources that want to exploit as efficiently and cost-effectiveness ratio of risk, a growing last year. This determined the capital market issues and the management of a portfolio of securities, to take up increasingly more important theoretical and practical training of future economists. Capital markets are all mechanisms through which relationships and capital available and dispersed in the economy are managed by public and private entities the applicant any funds. One of the main structuring of capital markets is that market shares in primary market, secondary market respectively. Fundamental institution of secondary market capital stock of securities. Subject to exchange is the trading of financial securities, which are documents certifying that their owner holds a right to a certain value. They are also called securities. Moreover, financial instruments traded on capital markets can be grouped into primary securities and derivatives. Primary products of the capital market are shares, bonds and specific products arising from the rights conferred by shares (preference rights, and warrants the award). Derivatives are represented by: futures, including similar contracts with final settlement funds, options with the underlying securities, equity, money market instruments.

At this time the world faces a crisis that had an outbreak, or the epicenter in the United States and then crossed the U.S. border and is now being felt around the world from Europe to Asia. She emerged from a part of the financial system dizziness, witch led to a major drop that affected and could continue to affect the entire banking system in the whole world. It took the four oldest investment banks to be bought ridiculous amounts or declaring bankruptcy as a giant insurance industry witch has been taken by the State, as two old mortgage credit institutions to enter bankrupt and the federal government to announce a rescue plan 700 billion dollars, to understand the mechanisms crisis.

Global economic crisis is amplified each day and Romania felt that economic recession, which economists from major global and unable to find an antidote. And the man will feel the crisis in the companies in Romania. On the one hand those that cover loans for development or other needs work, will awaken to the inability to repay these loans, while the possibility of undue payment of suppliers, especially for those who have made payments currency. Moreover, as global stock markets collapse and the

Bucharest Stock Exchange lost a few days over two billion, the companies can not count on them as sources of funding, another option to cover financial needs is totally blocked. The first signal was registered by the capital market, which has experienced since the middle of last year, with the withdrawal of major foreign investors from all emerging markets.

2. THE PROBLEM FORMULATION

In current conditions the following problem arises as affected Bucharest Stock Exchange and as an investor's portfolio is affected? Since reopening, has seen a continuous development. Currently, the BSE listed about 60 companies, including SNP Petrom, the Romanian Bank for Development, the five financial investment companies, Transylvania bank, BRD, etc.

October 8, 2008, "Black Wednesday". Loss of 2.5 billion dollars per minute. The financial crisis has affected U.S. and Romanian capital market. On Oct. 8, for the first time in history, trading session of the Bucharest Stock Exchange was closed. Transactions were suspended due to a fall over the critical threshold of 15%. Since its opening meeting, the BET index lost more than 14.43 percent. Transactions at the Sibiu Commodities Exchange were also suspended. Transactions were postponed until the end of the day. Then president, Farmache said that this measure was taken stock of the situation other international market. Since the beginning of the financial crisis, the BSE has lost tens of billions of Euros. In a couple minutes of trading, losses were 2.5 billion, so BSE has suffered greatly from this economic crisis.

Regarding its portfolio investors these securities whether individual investors whether corporate investors. A simple definition of the portfolio shows that it represents a number of securities held by an operator of a legal person if we talk about institutional investors or by an individual for an individual investor. According to the dictionary of economics, a portfolio consists of physical assets or money held by a financial agent in positive or negative amount, the agent who determined on one hand but the size and composition of its portfolio. An efficient management of the portfolio may not have a foundation without taking into account the issue of profitability and risk of individual assets.

Profitability is sometimes defined as earnings as a result of holding a security over a certain period of time; in this case one can speak of a return in absolute terms.

3. SOLUTIONS / CASE STUDY

To try to give a solution we developed the following question above case study, we consider a portfolio of securities consisting of shares of four companies listed on stock exchange, namely: SIF1 SIF Banat-Cri SA, SIF2, SIF Moldova SA, Transylvania Bank SA TLV, BRK SSIF Broker S.A.

Present portfolio will consist solely of shares of four companies listed above; they entered with different weights, each portfolio composition. The four companies were selected, not random but due to the positive performance they had realized on the capital market. Time management is considered: 02/15/2010 to 07/30/2010, for 6

months. The market followed has been the odd-lot order-driven type. The Odd Lot Market (odds), block trading is an action, while the maximum is 99 shares. Evolution of the four actions within the portfolio composition, the last 12 months can be seen on the graphs below: The Ox axis is represented during the months and Oy axis are the values recorded. The information is provided by the Bucharest stock exchange. To manage portfolio consisting of shares of four companies listed on BSE, following aspects should be considered: profitability and risk of these securities, dividends given by the four companies, shares in the share portfolio, the amount originally invested, the amount obtained at the end of management, portfolio profitability, ways to combat potential losses identified, proposals to diversify the portfolio to hedge risk. Below is based on the theory of portfolio and formed the above issues, a general model for managing a portfolio of securities.

To manage the portfolio of securities constituted the following steps:

- I. It shows the portfolio composition;
- II. It establishes the amount originally invested and its value at time t_0 , when the establishment and the quantity (number) of shares was incorporated;
- III. Determine the profitability of actions that make up the portfolio;
- IV. Determine risk activities;
- V. determine profitability and return on portfolio risk and risk to its component actions;
- VI. It highlights the value at the end of the survey period, t_1 . It should be noted that these steps are not mandatory, and not the standard steps, tracking them is not mandatory, and if the management of complex portfolios, or portfolios faced with inputs and outputs of sum (cash-flow positive and negative sites) management is inconclusive after the steps listed above. However the portfolio of actions that follow it is simple without further input or output amounts, and management steps have been developed and adapted for the study of this portfolio.

Step I. This step defines the portfolio and it's composition, so the portfolio has in its composition shares of companies listed on the Bucharest Stock Exchange, companies included in the basic category and the composition of the BET and BET-FI. These are: TLV, BRK, SIF1, SIF2. Share amount of the portfolio invested in each share to the total amount is: TLV - 40% (4000 million), BRK - 30% (3000 million), SIF1 - 15% SIF2 - 15% (by 1500 each).

Step II. Amount originally invested is 10,000 lei. The investor is a person but an individual. The initial value of the portfolio with the collateral was: 10 million lei. There were the following: 10 000 lei of 4000 were invested in shares TLV, which was the purchase price RON 2.00, at that price the investor has bought: $4000 / 2.00 = 2000$ shares, 3000 MDL has been used for the purchase of BRK shares, which had at the time of purchase value of 0.24 lei were purchased at this price $3000 / 0.24 = 12,500$ shares. Of the remainder 1,500 lei were used to buy shares at a price of 1.15 lei SIF1, buying shares is a number of 1304.3 ($1500 / 1.15 = 1304.3$). The remaining 1,500 lei, or bought shares in SIF2, amounting to 1.4 lei $1500 / 1.4 = 1071.7$ shares. The portfolio includes a number of 16,876 shares. Share each share in the total number of shares is 12% shares TLV ($2000/16876 = 0.1185$, and $0.1185 * 100 = 11.85 \approx 12\%$), BRK - 74% SIF1 - 8%, SIF2 - 6%.

Step III. Return actions fall within the portfolio composition can be determined, in this case, simply using the formula:

$$R = (D1 + P1 - P0) / P0 \tag{1}$$

Note that in this case we need to know the value of dividends. This value is shown below. For this portfolio notional amount of the dividend is 0 companies have not paid dividends for the period considered. Return calculated for action TLV: $D1 = 0$, $P0 = 2.00$ and $P1 = 1.45$, so that return results for BRD is $RBRD = (0 + 1.45 - 2.00) / 2.00 = -0.275 * 100 = -27.5\%$. Return calculated for action BRK: $RBRK = 25\%$. Return calculated SIF1 action: $RSIF1 = -2.6\%$. Value is not too negative in return for these actions. (The purchase price was higher than the selling price, so the investor has lost the original amount invested). Return calculated SIF2 action: $RSIF2 = -27.8\%$. Value is negative can not speak for these actions even. (Purchase price was higher than the selling price, so the investor has lost the amount originally invested). So the first steps of the study is apparent that three of the companies listed on the BSE and included in the portfolio are unprofitable, they have the purchase price, higher than sales, and thus brought losses. Step IV. To study exactly how the risk should consider actions to enter into the composition of the portfolio. With the assumption of normality to meet the financial Title profitability analysis, the most commonly used measuring instruments are risk dispersion $\sigma^2 (R)$ and standard deviation $\sigma (R)$.

$$\sigma^2 (R) = \frac{1}{N} \sum_{i=1}^N \left(R_i - \bar{R} \right)^2 \tag{2}$$

$$\sigma (R) = \sqrt{\frac{\sum_{i=1}^N \left(R_i - \bar{R} \right)^2}{N}} \tag{3}$$

The risk determined arithmetically (as determined in a simple way) for the portfolio shares is determined as follows:

- * Dispersion $\sigma^2 (R)$ and standard deviation $\sigma (R)$ have the following values:
- $\sigma^2 (R) = [(-0, 275 - 0,329)^2 + (0, 25 - 0, 329)^2 + (-0,026 - 0, 329)^2 + (- 0,278 - 0,329)^2] / 4$
- $\sigma^2 (R) = 0, 8654$;
- $\sigma(R) = \sqrt{0, 8654} = 0,9302$;
- $\sigma(R)\% = 0, 9302 * 100 = 93,02\%$;

The calculations above has been obtained by the arithmetic mean of the four measures yields calculated above, N represents the number of shares, $N = 4$ and $R = -0.329$. So after we define risk calculations about 93.02%.

Step IV. This step is to identify risk and return portfolio securities. Profitability and portfolio risk while maintaining their structure, assumes normal

distribution corresponding rates of return on future scenarios. It is known that the normal distribution depends only on average and dispersion of the distribution. It is also known that a linear combination of normally distributed random variables is a random variable normally distributed, so the portfolio will have an expected return rate evolving as a normal distribution law of average $E(R_p)$ and mean square deviation, respectively: $R_p \sim N(E(R_p), \sigma_p^2)$. Analytical formulas for calculating the distribution of two parameters, which are called the equations of the portfolio are:

$$\begin{cases} E(R_p) = \sum_{i=1}^n x_i E(R_i) \\ \sigma_p^2 = \sum_{i=1}^n \sum_{j=1}^n x_i x_j \sigma_{ij} \\ \sum_{i=1}^n x_i = 1 \end{cases} \quad (4)$$

where:

x_i = the share of Title I, the portfolio;

$E(R_i)$ = expected average return of Title I,

$E(R_p)$ = average expected return of portfolio p

P = portfolio risk, expressed as variance (scatter) of return;

σ_{ij} = Covariance between securities i and j yields;

n = number of securities in the portfolio.

Level Indicator "covariance" is between $-\sigma_i \sigma_j$ and $+\sigma_i \sigma_j$ with $i, j \in (1, 2, 3, \dots, n)$. to better capture how correlated are two securities i and j, calculate the correlation coefficient:

$$\rho_{ij} = \frac{\sigma_{ij}}{\sigma_i \sigma_j} \quad (5)$$

$$\begin{cases} E(R_p) = \sum_{i=1}^n x_i E(R_i) \\ \sigma_p^2 = \sum_{i=1}^n \sum_{j=1}^n \sum_{k=1}^n \sum_{l=1}^n x_i x_j x_k x_l \sigma_{ij} \sigma_{ik} \sigma_{il} \sigma_{jk} \sigma_{jl} \sigma_{kl} \\ \sum_{i=1}^n x_i = 1 \end{cases} \quad (6)$$

After calculations we obtain:

Return portfolio is:

$$E(R_p) = 0,12 * (0,275) + 0,74 * 0,25 + 0,08 * (0,026) + 0,06 * (-0,278) = 0,134$$

$$E(R_p) \% = 0,134 * 100 = 13.4\%$$

$$P \text{ portfolio risk, expressed as variance (scatter) of return is: } = 0.12 * 0.74 * 0.43 + 0.12 * 0.08 * 0.494 + 0.12 * 0.605 * 0.06 + 0.74 * 0.08 * 0.25 + 0.74 * 0.06 * 0.432 + 0.08 * 0.06 * 0.496 = 0.635, \text{ expressed as percentage: } 0.635 * 100 = 63.5\%$$

while: $X_i + X_j + X_k + X_l =$ a true relationship is checked: $12\% + 74\% + 8\% + 6\% = 100\%$.

Step V. In case this last step involves the portfolio value at end performance management and evidence.

4000 lei invested in shares of TLV, and a total of 2000 shares at time of purchase, when their sale action baseline decreased from 2.00 to 1.45 - so the value of the shares become $2000 * 1.45 = 2900$ Lei, giving a loss of $2900 - 4000 = -1100$ lei.

At the 3000 BRK lei invested in shares at the initial price of 0,24 with a total of 12,500, of shares, the investor sells shares at a price of 0.30 RON / share, its share value at this price is $12\ 500 * 0\ 30 = 3750$ lei, achieving a gain of $3750 - 3000 = 750$ RON 1,500 lei to invest in shares SIF1, purchased at a price of 1.15 – the investor did not win anything because selling price of 1.12, so a number of $1304.3 * 1.12 = 1460.8$, a loss of 1460.8 to 1500 = -39.18 lei. If the investor buys shares SIF2 Moldova 1071.7 shares at a price of 1, 40 and sell the same number of shares at a price of 1, 01 recorded as a loss: $1.01 * 1071.7 = 1082.8$ so loss from 1082.8 to 1500 lei originally invested = 417.2 In the final portfolio value is: $2900\ 3750\ Ron + 1082.8\ 1460.8\ RON = 9193.6$. This is the final value of the portfolio which means that the facade of the original value of 10,000 lei a loss of 10 000 to 9193.6 = 806.4 lei (RON).

4. CONCLUSIONS

The following case studies on portfolio consisting of shares of four companies listed on the Bucharest Stock Exchange, presented above (TLV, BRK, SIF1, and SIF2), several conclusions can be drawn, and the most important are presented below. Amount originally invested was 10,000 lei and the management obtained at the end of September was 193,600 lei. There was a loss of 806.4 monetary units.

During those six months of management actions have not been spectacular increase but rather decrease gradually from peaks of portfolio formation and management at the end of the share price is below the purchase price. A single action showed slight increase from month to month, so at the end of its price was higher than the purchase, sales price is higher than the acquisition price, leading to a gain, but the general trend as it could see a downward throughout the period of administration. The ideas presented above are supported by results obtained in calculating the profitability and risk measures and portfolio. To return portfolio achieved a value of 13, 4%, a value which tends to be correct if we refer to earnings management at the end, it is very small. At the risk of the portfolio of approximately 63% is normal to record a loss, this portfolio can actually be classified as unprofitable, and that was only maintained for a period of six months to stop the losses at the end is not higher. This portfolio, this investment does not comply with the rule: the lower return with both the risk decreases as the increase portfolio returns. Also the investor does not take measures against such risk through diversification, by including more than four shares in its composition.

If investment in shares listed on stock exchanges, the yield is proportional to the risk taken: "want to win more quickly and then automatically from investments for this purpose, increase the risk of losing money invested." This investment has acted as the Bucharest Stock Exchange (BSE), which in the period under review has not been

significant gains, its evolution is more than the "red", but that trend seems to ends we can hope to better situation in 2011.

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INVESTMENTS IN BONDS ON ROMANIA'S CAPITAL MARKET

ILIE RĂSCOLEAN, ROBERT SZABO *

ABSTRACT: *Capital market, both the primary and secondary record financial transactions not only through property titles, but also issues debt securities, designed to attract monetary funds in the form of loans or medium term. Bonds are securities, consisting of a long-term debt on a company giving the holder of Bonds (Bondholders) claim equal rights, corresponding nominal value of the bond. Bonds can be bought either in the public offering period, from banks or corporations Brokerage Financial Services Distributors, or from the stock through a brokerage firm by a procedure similar to that for action. Investing in bonds also entails risks, among which include the risk of default, interest rate risks and currency risks.*

KEY WORDS: *bonds; investments; capital market; profitability; ratings; bond portfolio*

JEL CLASSIFICATION: *G11*

Capital market, both the primary and secondary record financial transactions not only through property titles, but also issues debt securities, designed to attract monetary funds in the form of loans or medium term. Loan recipients may be private and public companies, state institutions, governments, local authorities and financial institutions, etc.. Attracted capital from the placement of debt instruments are used in profitable activities, which lead to repayment of the loan, the interest payment to holders of securities to achieve a net profit, which will be reinvested by the issuer, in order to increase capital.

Debt instruments without a fixed income, interest form, known generally as the bonds. Capital market, over time, there are various forms of debt securities, in different forms, names, characteristics, but regardless of these features, we can cover in two broad categories: conventional bonds and other securities fixed income loan. Capital markets are issued and traded many types of classical obliğațiuni (direct), grouped

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according to two criteria: presentation, and the place of contract and conditions of issue.

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Capital markets are issued and traded many types of conventional bonds (direct), grouped according to two criteria: presentation, and the place of contract and conditions of issue. Financial market is an organized market of capital transfers from those who have a surplus (capital) to those who need capital. Thus, the financial market is, in a market economy as a source of direct funding of private and public companies, to the local, regional and national in macro or micro level. If such funds are put into circulation securities at the same time, are established between suppliers of funds, investors and capital seekers, buyers, users, issuers of securities.

Bonds are securities, consisting of a long-term debt on a company giving the holder of Bonds (Bondholders) claim equal rights, corresponding nominal value of the bond. Bonds are issued to obtain medium to long term financial resources in the form of refundable credit. May issue bonds under Romanian law, stock companies, public enterprises, public institutions, local communities. Bonds issued by companies qualified to CNVM Regulation no. 5 / 2003 on public offerings of securities law "corporate bonds", the term being used to adapt the legislation to Anglo-Saxon terminology widely used stock market (corporate bonds).

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Bonds issued by companies qualified to CNVM Regulation no. 5 / 2003 on public offerings of securities law "corporate bonds", the term being used to adapt the legislation to Anglo-Saxon terminology widely used stock market (corporate bonds). Bonds are securities representing such holder's claim on the issuer them, resulting from a loan for the latter - a company, public agency or state - regularly pays interest, usually fixed, and will redeem the bond over a certain period.

To this we compared the characteristics of bonds to shares. Thus, if we consider the bond investor's position is that a debt while it is an action title. In terms of build upon the investment bond generates certainty that build upon the issuer undertakes to pay interest regardless of the result while the dividend can not be charged if results are inadequate or if it is decided by the General Shareholders Meeting not to distribute dividends. If we consider the risk of investment, then we say that the risk assumed by investors in bonds is less than the risk involved in investing in shares. Finally, bondholders are creditors and, therefore, must be paid before common shareholders, or if you preferred the bankruptcy situation.

Bonds have several features, some of which are still set to issue face value represents the amount that the issuer must repay the bond holder, the total issue, the interest (coupon), maturity, life of the bond, ie the period between issue and maturity,

issue price, ie the amount that actually uttering the bond, it may be more than nominal value (look above), equal to this (ad stakes) or less (in stakes) in this set market conditions and the urgency of obtaining funds, procedures for reimbursement; yield bond index calculated by the issue price and interest announced.

Of the many types of bonds they summarized the most common: Bonds classical (normal) with a fixed maturity and interest (fixed) be paid regularly. Indexed bonds are those in which the issuer undertakes to update them interest (value) depending on some index (eg according to the inflation index). Bonds with variable life and enabling the issuer or holder to modify their maturity, or duration of the loan. This could mean the loan or extension of repayment before maturity. Any of these operations, depending on who is asked and its meaning (extension or shortening) to payment of bonuses or penalties to the reimbursement. Participating bonds, which as their name suggests enable investors to participate in the favourable results of the investee company.

Therefore, besides the initial set interest bond holder receives venture additional amounts allocated from net profit or reserves specially constituted for this purpose. Single bonds are those in which interest is paid periodically but not capitalized and paid once at maturity. Zero coupon bonds are those for which no interest is charged separately (so no coupon) gain resulting from the investor that are issued at a price undercoat and is repaid at maturity at nominal value (ie the interest due form of a raw issue).

Convertible bonds are those which offer the investor the opportunity to transform them into shares of the issuer. Conversion ratio, conversion period and other conditions of conversion must be provided in a prospectus. Bonds redeemable in shares are those shares that pay by the issuing company. Redeemable bonds are those bonds through constant annuities in which the issuer will pay an annual investor constant amount (annuity) that includes interest on credit and part of the loan.

Bonds redeemable by lot: are those paid in advance by the issuer, who will be setting early repayment is made by drawing lots. Bonds 'dirty' (junk bonds) - are those who have attached a very high risk because the money is used to mobilize business whose success is uncertain but potentially huge profits. Course and the interest is commensurate with the risk involved in these businesses. Of government (tickets or treasury bills) are issued by state and mobilize these funds available to the state. Are considered the safest investments because they rule and thus guarantee their would be no risk attached. Foreign bonds are those securities issued by companies from countries other than their loan is made. Euroobligațiunile (eurobonds) are expressed in eurovalute those bonds, issued and traded simultaneously on the capital markets of several countries by an international banking consortium.

Financial quality of an investment in bonds is determined by several performance indicators such as: Rated product, expressed in percentages by the nominal interest rate and the interest received in the exchange value coupons, current or actual product, current market price, which shows the present value of future streams of income they offer to hold the bond until a specific future date (possibly until maturity):

$$P = \sum_{t=1}^n D_n * (1 + i)^{-t} + (D_n + Pr) * (1 + i)^{-n} \quad (1)$$

where:

- t = time index,
- n = time in years maintaining possession of the bond
- dt = rate promised for year t,
- I = interest rate market
- Pr = repurchase price at the time of sale;

The question remains, how to carry out investments in stocks and bonds, the valuation of them and some criteria for rating and bond returns. Agencies assess the quality of bonds and rank them according to the risk posed. For investors this somewhat simplifies the selection of bond ratings reduce the risk of default.

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Different categories of bonds are illustrated by letters. The performance bond for the risk of default is negligible are symbolized with triple A (Aaa or AAA). Also, rating agencies use arithmetic signs (+, -) to show relative standing against a major category (Aa +, A-). Not all bonds are evaluated by rating agencies.

Bonds issued by small companies and distributed through private placement are not valued. Bonds which are assessed to be found about the same risk category, regardless of the agency was evaluating. Very often there are differences between rating agencies and they exist they are minimal. The rating, however, investors do not solve problems, missing a clear hierarchy of bonds according to risk. Overall, almost 90% of bonds are valued in the top four rating categories (most valuable), so there may be an easy selection. Second, although firms rating assessments often differ, however, sometimes they differ.

And thirdly, bond rating changes relatively slowly. Under continuous observation, the bonds are downgraded only when there are sufficient data to make this necessary. In general, the ratings of rating agencies serve only to form a picture of the bond and achieve a general classification of the nature of the issuer see their elements are taken into account in the long-term bond rating are: the situation debtor's financial results, liquidity and management.

In terms of the debtor's circumstances, he must fulfil certain conditions in its relations with creditors, namely: to maintain a certain level of reinvested profit, the capital, the debt level in relation to the assets, etc.. The financial results relate to assessing the profitability of the company because it is vital to consider certain aspects such as "health" of the company's financial, further development, financial performance analysis of past, present and forecast future results of the issuing company is not only to analyze profit, it requires taking into account a variety of indicators. Liquidity is one of the most important indicators of the company. A firm is in constant need of cash to make payments, and when no longer able to meet these payments go bankrupt. A firm has three sources of revenue excluding liquidity of current work: net income plus depreciation and Proviso, issuance of securities (shareholders) or

borrowing, sale of assets. It attaches great import, the company procesul assessment, management analysis, which is differentiated according to the nature of firms.

Thus, if large companies, management is very effective because large companies policy of selection and training of personnel. Studies on the behaviour of financial analysts rate the relationship with bond prices showed that trends can be expected in the evolution of yield bonds formed by large time intervals (about 15 years from issue). The analysis assumes that show characteristics are constant (including interest coupons). In assessing the interest rate on bonds and rates of return are three theories raised in the literature: theory expectations net liquidity preference theory and the theory of segmented markets. In accordance with theory explanations net graphics estimates is explained by the participants of money market interest rate. Values in future interest rates are geometric averages of current and projected rates next year.

Theory shows that liquidity propensity to long-term securities would need to offer higher than short-term profits because rational investors are willing to accept lower pay-offs for short term bonds to avoid long-term bond volatility. Segmented market theory indicates that different groups of institutional financial investors tend to structure their investment policies depending on the debt to the budget, the flow structure and the level of interest payments to creditors.

For example, commercial banks, which must have short-term liquidity (for payment of demand deposits and short term as the main source of credit), will invest in short-term municipal bonds. The technique is part of the strategy of commercial banks to manage interest rate risk. Each bank sets its aim of achieving equality terms of assets and liabilities. Presents weighted duration time required for an asset price view its current value to be recovered. Bonds, although defined as income securities and certain low-risk, reducing the risk to portfolios are introduced should be assessed using methods that take into account the complex factors that characterize these securities and correlations "interest rate - maturity - time "in order to estimate their efficiency as rigorous.

Investment made by investors in a bond issue can be assessed based on indicators such as:

1. Nominal product or nominal interest rate: $N_p = (D * 100) / VN$, where: N_p = nominal product, D = interest charged by the debenture holders, VN = nominal value of the bond.
2. Current product is expressed as a percentage of annual income to purchase price of bonds: $I_c = (D * 100) / I_n$. Interest received by the investor does not say everything about profitability. Nominal yield does not take into account that almost always, the price of the bond or the current value, market it, not the same value. The yield increases as the difference between nominal value and actual value is higher.
3. Actual product (real) is the price of the bond in n . It is calculated as a present value of bond:

$$IE = [R_1 / (1 + i)] + \dots + [R_n / (1 + i)^n] \quad (2)$$

where:

I_e = effective product

R_1, R_2, \dots, R_n = annual interest received plus reimbursement i = interest rate term.

From the formula above that there is a directly proportional relationship between present value or selling price and future income and an inverse between and market rate (r).

Bond real returns take into account the assumption that the investor holds the bond until maturity and reinvests all the assets earn interest as having a level equal to the yield bond yield which is calculated randamentul.4 yield to redemption. Consider the assumption that bonds can be redeemed before maturity. In this case, sold for a discount bond redemption yield is always higher than the yield to maturity. Can recall the bond is specified in the prospectus of the issue and the conditions in which redemption can be made. For an investor who sells the bond before maturity, revenue bonds brought concerns two components:

1. income directly - $\eta D = C / W * 100$, where ηD = direct income, V = annual payments as, C = the bond, 100 - nominal value of the bond (percentage)
2. investment income - $\eta P = [V + / - (d / n)] / [(C 100) / 2]$, where ηP = investment income, annual payments as $V = d / n =+ / -d = Vr -Vn$ (difference between the real and nominal value of the bond), n = remaining duration to maturity expressed in years, 100 = parity rate (expressed as a percentage), $(C + 100) / 2$ = average rate of bond

Interest in holding a bond is not redeemed both its value and size of paid coupons, as the present value of subsequent earnings (annual) and the amount of coupons redeemed (or the resale amount of the bond). The current value is therefore equivalent to today's money to be received in a number of years depending on the maturity of the bond. This equivalent takes into account the possibility of building upon an amount available today by placing a certain interest rate over the life of the bond. In other words, the buyer of securities, the intrinsic value (P_0) of a bond will be purchased today and wants to sell over n years is equal to the actual value of n successive coupons receivable (C_1, C_2, \dots, C_n) and market value (R) which we hope will get (over n years) from selling the bond, according to the relationship: $P_0 = C_1 / (1 + r) + \dots + C_n / (1 + r)^n$. Discount factor r is below par, the interest rate that can be placed (stock market) a monetary unit. And $r = C / P_0$.

To illustrate the case study was made on investing in bonds. This case study exemplifies the pro rata method of allocating bonds, are examples of reported interest from a reference rate, is also cover examples and a simple calculation on return of a bond.

I. Place in the 7000 sale of bonds of each Bucharest 10000 lei, and the closure of the bid are two applications to purchase a 2000 and a 8000 bond. Such pro rata allocation that the first investor will receive the 1400 bonds and the second 5600

$$1400 = [2000 / (2000 + 8000)] * 7000;$$

$$5600 = [8000 / (2000 + 8000)] * 7000;$$

By pro rata method each investor receives a number of bonds in proportion to the amount deposited.

II. Rates most commonly used for bond issues are Romanian and BUBOR BUBID rates at which banks attract or place money in the interbank market. Other bonds, particularly municipal, gives the average of which is BUBOR, BUBID and adds

a percentage around 2.5% - 2.00%. Such bonds Bucharest interest is calculated as the average BUBOR BUBID and plus 2.5% per year. This interest is calculated quarterly based on official rates and BUBOR BUBID Romanian National Bank reported. If at some point in the calculation of the two rates are 18% and 20% when the following three months interest on the bonds will be $[(6.10\% + 6.85\%) / 2] + 2.5\% = 8.97\%$. This is an annual interest and will be used for calculations for the next three months and these will be recalculated based on the values then and BUBOR BUBID.

III. Suppose that municipal bonds are sold with a discount Bucharest 1500 lei 8500 ie price and interest rate calculations to be determined are 8.97% the previous step. Hence it is possible to calculate return on investment in bonds will be: $(10\,000 + 10\,000 * 8.97\%) / 8500 = 28\%$, a much higher return than the interest rate of 8.97%.

IV. The nominal value of bonds is 10,000 lei $VN = 70\,000\,000 / 7000 = 10\,000$, the coupon interest is $C = c * VN$, $C = 11\% * 10\,000 = 1100$, this information may result in the return coupon is for $(1100/10000) * 100 = 11\%$. In the simplified formula to yield a bond which is refunded at the end of maturity: $P = C / y * [1 - 1 / (1 + y)^n] + VN / (1 + y)^n$ know $C = 1100$, $y = 8.97\%$, $n = 2$ resulting from the calculations that $P = 10\,363$, so this bond is sold with extra 363 lei. This may lead to price and exchange if 10 000 is the price at par value of 100% then 10363 is the price of 103.63. Knowing these factors can be expressed as a ratio of output current price coupon C and P; $Rc = (1100/10363) * 100 = 10.61$, $Rc =$ coupon yield, it can cause yield nominal value Rn , $Rn = C / VN = 1100/10000 = 0.11 * 100 = 11\%$. We determine the yield to maturity approximated by a formula that looks like this: $y = [C + (VN - P) / n] / (VN + P) / 2$, thus obtained y value of 0.0902, multiplied by 100 to obtain a yield of 9.02%.

The case study presented the main events to be taken into account when we want to make an investment in bonds, the allocation method of determining the various important elements that characterize and bonds based on these elements was possible to calculate the final output.

Return on investment in bonds before maturity can be made at market price, which differs from the price paid when placing capital in bonds. In other words, the first investor can sell bonds to profit or loss. The main factors determining the resale of bonds on the secondary market are banking market interest rate changes, changes in credit conditions linked to binding, changes in demand and supply in the bond market.

When bonds are traded on the secondary market yield is analyzed in three respects: in terms of interest coupons, the current yield and the yield to maturity. Analysts noted that the profitability of a bond varies inversely with the money supply and directly proportional to real income individual lending funds with demand, and inflation. Agencies evaluate bond quality bonds and rank them according to the risk posed. For investors this somewhat simplifies the selection of bond ratings reduce the risk of default.

Bonds can be bought either in the public offering period, from banks or corporations Brokerage Financial Services Distributors, or stock exchange through a brokerage firm after a similar procedure for action. Investing in bonds also entails risks, among which include the risk of default, interest rate risks and currency risks.

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FACTORING AGREEMENT - FINANCING METHOD FOR THE COMPANIES IN LACK OF CASH-FLOW

OANA -CARMEN RĂVAȘ, ADRIAN DAVID *

ABSTRACT: *The benefits of factoring apply to all the parties involved in the transaction. There are always three different parties to each factoring transaction. The first is the customer or buyer. The second is the supplier or seller. The third is the factor. All three parties have benefits when a successful factoring transaction takes place. The recent economic times have put a crimp in small business profits, so small business people nationwide are looking for ways to cut business costs, and many are suffering from the fact that their customers are not paying on time, if at all*

KEY WORDS: *factoring; cash-flow; market; finance; working capital; credit; business; deal*

JEL CLASIFICATION: *K12*

1. INTRODUCTION

The value of the Romanian factoring market was 1.8 billion Euros last year, up by 63.64% against 2007, so that the penetration degree of these services in Romania is only 0.52%, as compared to the EU average of 7-7.5%, according to data from the International Factors Group. "Romania is on the seventh position in a ranking of the highest growth markets in 2008. But the penetration rate in Romania is far below the EU rate of 7-7.5% and the global rate of 3.45%. If we take into account only this difference between the rates of penetration, we can say that the potential of this market in Romania is a seven-fold growth, to get nearer to the world average and 15-fold to reach the EU average," the Secretary General of the International Factors Group, Erik Timmerman, said on Tuesday,

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at the seminar on "Sustainable Financing Solutions in times of crisis. The penetration level is the ratio between the turnover of factoring companies and GDP.

According to the representative of the International Factors Group, market development also depends on the people who know this area, but also on the existence of specialized structures. According to data from the association, 1600 companies operate at global level, and market value was 1.224 billion euros in 2008, of which Great Britain and Ireland contributed with 18.94%, France with 10.99% and Italy with 9.99%. The International Factors Group is an association of factoring companies, with 160 members worldwide. In Romania factoring services are mainly provided by banks, through specialized divisions, among the most important being BCR, BRD and UniCredit (Galanton, 2004).

Factoring is achieved by selling receivables (unpaid invoices) accumulated by a company, to an entity, often a bank branch, at a certain discount. This institution starts steps to recover the due amounts, making profit when it collects a bigger sum than the price paid for the receivables.

2. FACTORING: A BEST-OF-BREED SURVIVAL TIP FOR SMALL BUSINESSES

There are many businesses that have stayed in business and benefit from the working capital garnered from invoice factoring for small business in the face of tight credit at mainstream banks. First documented in the American colonies before the revolution, at a time when materials and/or goods were shipped from the colonies to the Americas, factoring is not a loan but it's the purchase of financial assets, also known as receivables. It differs from traditional bank loans as follows. Bank loans involve two parties, and factoring involves three parties. Factoring is based on the value of the receivables. Banks base their decisions on a company's credit worthiness.

They were not under any obligation to wait to be paid. Invoice factoring benefits businesses that do not get paid for 30 to 60 or 90 days by advancing up to 90 percent against invoices. The factor generally looks at the creditworthiness of the client's customers and can fund within as little as 24 hours. Most companies do not expect to buy 100 percent of a company's receivables (Mousseron, et al., 1997).

During the Industrial Revolution, factoring accounts receivables became more focused on the issue of credit, as factors guaranteed payment for approved customers. | Invoice factoring became more focused on the issue of credit during the Industrial revolution. It was before 1930 in the United States when factoring occurred and it was primarily for the textile and garment industries, and then after the war years, factoring expanded to other types of businesses. When interest rates rose during the 1960's and 70's, private factors became popular and it intensified in the 80's due to the changes in the banking industry and interest rates. Small businesses were forced to find other sources of financing for expansion and growth so factoring became more widespread.

By using factoring, also known as factoring accounts receivables, it is easiest to keep your cash flow flowing, you will have the edge over the other guy, so you can order more supplies to build more products, keep your employees and sales staff on, pay all your bills, and in turn sell more. Factoring is easy. It is not a loan; rather it is the purchase of financial assets, or receivables, from a factoring company. The third step is going to give you an edge too. It is accounts receivable factoring. By using this financial tactic to keep your cash flow going, small businesses can pay their bills, keep employees or staff, keep an edge over competition, order more supplies, build more products, and in turn sell more, and make more revenues (Florescu & Pirvu, 2009).

Factoring invoices doesn't work like traditional bank loans involving two parties, as factoring involves three parties. Banks base their decisions on a company's credit while factoring invoices is about the value of the accounts receivables for a company. There are no minimums or maximums, and no long-term commitments. Factoring companies like the Interface Financial Group, Inc. (IFG) are finding that single invoice factoring is a popular new tactic allowing its clients to factor one invoice at a time. Projections ahead for the year 2010 include the fact that businesses will be factoring accounts receivables- less for survival and more for stability and growth.

3. THE DEFINITION AND HISTORY OF INVOICE FACTORING

Factoring by definition is the sale of a company's receivables, otherwise known as its assets, or invoices, at a discount to a factoring company who pays the business a discounted amount off of the face value amount of these invoices, and then receives payment for the invoices from the company's customers directly. The practice known as factoring has been evolving over 4,000 years, or since the beginning of commerce. More specifically, it was first used in the day of King Hammurabi of Mesopotamia, also known as the "cradle of civilization" in history books. Historically it was the Mesopotamian people first developed writing and they also structured business codes and government.

However it was the Romans who began selling promissory notes at a discount - yet another form of factoring. Then, the first documented use of factoring occurred in America some time before the revolution, when animal furs, cotton, and even materials such as timber were shipped from the colonies to Europe. Merchant bankers in London advanced funds to the colonists so that the Americans could continue to harvest their new land. In other words, these factors during the colonial times made advances against the accounts receivable of their clients, the Americans, enabling them to continue with their work. Soon it was during the Industrial Revolution when factoring became more focused on credit when they assisted clients in determining the creditworthiness of their customers and setting credit limits. It was the factor who could then guarantee payments for customers that had been approved, speeding up the process (Stănescu & Sitaru, 2008).

The beginning of factoring dates all the way back 4000 years to the time of Hammurabi and the Mesopotamians. This was when the first written invoices were used

and business lending and Government regulation all seem to date from this time. The first evidence of factoring can be found among this ancient stone tablets. The history of factoring is very much the history of business itself (Jacquet & Delebeque, 1999).

There is evidence of factoring in every culture where there are remains of written invoices and ledgers. In Rome, the first evidence of the purchase of promissory notes at a discount can be found. There is little doubt that factoring has been around for as long as business has existed. The history of factoring is very much the history of business itself.

The type of factoring that exists in the United States today had its origins in the colonial days. Colonials were producing goods that were being sold in England. The finished goods had to be sent to a port and put on one of those creaky wooden sailing ships to be carried to the Mother Country for sale. The poor Colonial was not extending generous payment terms to be competitive, they were not going to be paid for quite some time simply because it took a long time to sail across the ocean, sale the goods, and sail back across the ocean with the money (Rovența, 2006).

The factor solved this time problem. They were actually providing payment to the supplier so they could continue with their business and survive while the boat was crossing the ocean. The factor, of course, was not actually buying the goods. They were not the same as exporters. They were advancing the funds at a discounted rate. Although there seems to be a fine line here, it was the assumption of the risk of non-payment that made the major difference.

As time passed and we moved into the modern era of instant communication and a shrinking world, factoring has continued to play an important role in the business world. The need for cash flow is still a major part of any business and the buying and selling of accounts receivables has remained a viable answer to this problem. The increasing interest rates that marked the 1980's and 1990's led to an increase in the number of new companies turning to the factoring business. Factoring was a way to raise quick capital in a manner that was called "off the balance sheet" financing. Since accounts receivables are an asset account, factoring was a way to raise quick cash without adding the liability of a loan.

Since many companies don't get paid right away after they have delivered a product or a service, it can negatively impact their cash flow, making it hard for the business to produce new orders. After all, supplies need to be on hand to continue making the products. Invoice factoring can benefit a business that doesn't get paid for 30, 60 or 90 days. How? Factors advance up to 90 percent of an invoice total, and they can often provide funding in as little as 24 hours. Keep in mind, factoring is not a loan - it is the purchase of receivables otherwise known as financial assets, from a factoring company. Factoring is different from traditional bank loans because bank loans typically involve two parties, while factoring involves three parties. A bank bases its decisions on a company's credit worthiness. Factoring companies base their decision on the value of the receivables. There are no minimums, no maximums, no long-term commitments and no lengthy application processes when using an invoice factoring company (Mousseron, et al., 1997).

Make spot factoring, a newer type of invoice factoring, part of your business growth strategy today.

4. SPOT FACTORING COMPANIES HELP SMALL BUSINESSES GET CASH FAST

The recent economic times have put a crimp in small business profits, so small business people nationwide are looking for ways to cut business costs, and many are suffering from the fact that their customers are not paying on time, if at all. But the good news is that invoice factoring is another way for small business owners to stay ahead of the game. Have you ever heard of a company factoring receivables? Also known as spot factoring, single invoice factoring allows companies to obtain short-term working capital to grow their businesses, improve cash flow and stay afloat during tough economic times (Vartolomei, 2006).

Banks have become even more strict about credit these days, and small businesses often find it difficult to attract conventional funding. It is sad to say, many new business owners end up having to take out a home equity loan or worse, they must use credit cards to pay off their bills

That's why if you have outstanding invoices that are up to 60 or 90 days, spot factoring allows you to get the money now, so you can use it for business expenses that are critical. It's basically an advance on the money that is owed to you by your customers.

Factoring companies like The Interface Financial Group (IFG) will typically do a credit check on the client, make sure the sale represented has been satisfactorily completed and then they will notify the creditor that they have purchased the invoice, and then you will get your funding. At the end of the credit period the debtor pays the factoring company directly, thereby completing the transaction (Macovei, 2006).

Most companies have very competitive rates, and each and every client's circumstances vary, which could have an impact on the fees charged for spot factoring, also know as single invoice factoring.

5. BENEFITS OF FACTORING

Business owners have always been aware of the basic benefits of factoring. In the modern era, the number of benefits has increased as factoring has taken advantage of technology. The benefits of factoring apply to all the parties involved in the transaction. There are always three different parties to each factoring transaction. The first is the customer or buyer. The second is the supplier or seller. The third is the factor. All three parties have benefits when a successful factoring transaction takes place (Jacquet & Delebeque, 1999).

The customer benefits because factoring allows the offering of generous payment terms. The idea of invoices that are payable at a future date has always been a lure to

customers who often have their own cash flow problems. A customer who is buying merchandise with the intention of reselling it would appreciate terms because it allows them to begin to realize some cash flow from the sale of the merchandise before the invoice is due.

The seller also enjoys the benefits of factoring. Although he might be willing to extend terms in order to lure customers, this creates cash flow problems for him as well. In some cases, the process of determining credit worthiness and collecting the accounts receivable can be assumed by the factor. This frees the seller to concentrate on more important aspects of their business such as seeking more customers. Even organizations that are already geared up for these functions still benefit from having the ability to transform their accounts receivable asset into ready cash if needed (Mousseron, et al., 1997).

The factor enjoys the benefits of factoring, also. The factoring company is basically in the business of using capital to generate capital. Factoring is a form of investment. Like any other investment it has its risks, but the risks can be covered by the pricing scale of the factoring purchases. It is usually assumed that a factoring company has available cash. This represents their cash flow problem. They need to get this cash out working for them. So, the cash flow problem is pointing outward, and makes a perfect match for the supplier and customer whose cash flow arrows must point inward.

There is much the same in factoring as in any other type of business that makes cash available to those that need it in return for a profit. However, the benefits of factoring go beyond the benefits to the businesses involved. Factoring benefits everyone indirectly by being something that encourages business and spurs economic growth (Galanton, 2004).

When a deal works successfully between a buyer, seller, and a factoring company everyone benefits to some degree. It is possible that all the parties involved might have their individual downsides and they may view these as cons of the factoring process itself. However, a closer examination will reveal the fact that the complaints are not really substantial.

The buyer is aware that, in most cases, he is the one bearing the cost of the factoring arrangement. It is not uncommon for suppliers to raise prices passing along the cost to the buyer. One indication of this is the willingness of many suppliers to offer discounts to buyers who pay cash or accept terms calling for a shorter term. This is usually a case of the discount amounting to the cost of the factoring that would be involved in a long term invoice. It is possible that a buyer would consider the fact that he is bearing the cost a con of factoring (Florescu & Pîrvu, 2009).

The seller is not going to get the full sale price when he sells the invoice at a discount. The discount is actually a reduction in his total assets. It is possible that the seller would view this discount as a con of factoring, but there is also no gun to his head. The factoring deal provides him with cash that he can use now, rather than an account in his

books that can not be used until a later date. This is what the seller needs and he knows that any other method he uses to provide cash flow will also have a cost.

The factoring company is assuming the risk and the hassle of collection. If the deal goes bad, the factoring company is the only one that is actually out of cash. Even in the case of the recourse factoring method, the factoring company is still the one that must take the first action when things do not turn out as they were intended. However, again, all investments have risks. The factoring company "factors" the risk into the discount it offers when purchasing accounts.

It is only when the deal goes bad that the factoring arrangement can be problematic for the involved parties. Each party has a set of responsibilities and must live up to them in order for it to work. If one party is dishonest, or attempts to "con" the other, it will share the fate of any business transaction that goes bad because it is not done in good faith. It may be the only real con of the argument for factoring in business finance. It is a business transaction between three parties, rather than just two. This fact alone increases the amount of trust and the risk. Compared to the benefits of factoring, the cons of factoring are few, indeed (Vartolomei, 2006).

6. ALTERNATIVES TO FACTORING

For the seller or supplier, the alternatives to factoring can fall into two major categories. Either you can eliminate the cash flow problem or you can solve it through a more conventional method. The first is fairly simple on paper, but not as easy to do in the real world of business. If all customers are expected to pay at the time of delivery and accounts receivables are held to an absolute minimum, there is no need for factoring. It should be noted that this could easily lead the company into an unfavourable competitive position against companies offering more generous terms of sale.

Conventional business financing can be used as one of the alternatives to factoring. If it is possible to get a start-up loan or a revolving line of credit that is sufficient to handle any short term cash flow problems, this could be seen as an alternative. In many cases, it is the rejection by conventional lending institutions that leads a business to a factoring company in the first place. When it is possible to get conventional business financing, why would one chose factoring? (Mousseron, et al., 1997)

There is an answer. A conventional loan has a repayment expectation based on future performance. A company makes a loan, for instance, purchases inventory, and begins to sell it off. A portion of the revenues of the sales would be designated to satisfy the loan repayments. This works fine as long as sales meet expectations. If they do not, the business just has increased debt and hurt their cash flow positions as the repayment funds would have to come from elsewhere. At least when the factoring method of financing is used, the "loan" is being prepaid by already existing sales and not future expectations that may or may not come true.

The Small Business Administration sponsors some loan programs that are intended to help small and new business avoid the need for factoring. They do this by offering a program called the Small Asset-based CAPline or SMBA. This program helps the small business owner get a revolving line of credit that is secured by assets that they actually have rather than anticipated sales. This is a good program and it certainly can help a new small business owner set up a revolving line of credit type account. It still is not based on sales already in the books though, and so the risk to the assets that are securing it still exists.

There are plenty of alternatives to factoring. It is rarely something that is done because absolutely nothing else can be attempted. There are times and situations where it is the best and most sensible way to go. A good business planning process will recognize and be aware of alternatives in every step. Factoring is just another example, and when it is the right solution, knowledge of the alternatives will just help point you in the right direction.

7. CONCLUSION

During this present international economic crisis and given the limited access to the traditional financing schemes and the financing procedure for the factoring operation, factoring can be an appropriate alternative to some Romanian companies, especially for those specialised in providing goods and services.

Invoice factoring services can be a beneficial resource tool for business owners worldwide, especially during a difficult economy. Why? Because obtaining a loan from traditional financial institutions such as banks can be a difficult and slow process. Invoice factoring services from factoring companies provide short-term working capital to growing businesses who often find it difficult to get conventional funding.

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OPTIONS FOR THE ASSESSMENT of ITEMS of FINANCIAL STATEMENTS AT NATIONAL, EUROPEAN AND INTERNATIONAL LEVEL

SILVIA SAMARA *

ABSTRACT: *The main purpose of evaluation is to determine the financial position and the outcome of the entity's activity. With the intensification of the phenomena of globalization of economies and financial markets and the emergence of phenomena such as inflation, it began to be more often used the assessment based on the current value and, in particular, on the fair value. The users of the financial statements must always be taken into when selecting a basis of evaluation. Internationally, we can observe the tendency that, by the use of a certain bases of evaluation, to respond favourably to the needs of a various range of users; a balance must be assured between the relevance of the information (their usefulness in decision-making) and their reliability (their objectivity).*

KEY WORDS: *evaluation; financial statements; fair value; historical cost; net value of achievement; estimation techniques; IASB; European Directives*

JEL CLASSIFICATION: *M41*

1. INTRODUCTION

The evaluation is the process by which an item of the financial statements is assigned a numeric value which will be acknowledged and presented in financial statements. The International Standardization Body, through the conceptual framework, identifies the following **conventions (or bases) of evaluation:**

- **historical cost** - under this evaluation basis, assets are accounted according to the size of liquidity or of the liquidity equivalences paid or to the level of the fair value of goods ceded in exchange of their acquisition. *Debts* are recorded according to the size of the liquidity received in exchange for the liabilities or according to the size of liquidities expected to be paid for the liability defray, during normal

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operation (in the case of provisions). Often, this base of evaluation is combined with other bases for evaluation, e.g.: evaluation of *stocks* is performed in the balance sheet at the smallest value between the historical cost and the net value of achievement.

- **the current cost** – *assets* are recorded at the value of liquidity or the equivalences of liquidity that should be paid if the same asset or an equivalent asset would be purchased today. *Debts* will be accounted according to the size of the outdated value of liquidity or to the equivalences of liquidity which would be necessary today in order to pay the liability. By respecting the base (specific to the assessment of the balance sheet), it replaces a certainty based on the past with another offered by the present, but that will become past itself rather quickly. If we look from the perspective of the past, the choice of this convention is fully justified, but from the perspective of the future, the question arises whether another base would not be more appropriate.
- **realisable value** – *assets* are valued at the size of liquidity or of equivalences for liquidity that could be obtained today from their sale in the context of a nonliquidation assignment. *Debts* appear at the size of the settlement amount, i.e. the outdated size of liquidities that would be paid in order to pay off the debt in the normal course of exploitation.
- **fair value** – it is the value at which an asset could be changed or a debt settled, between well informed parties which give their consent, in a transaction in which the price is determined objectively. The concept of fair value is based on the existence of active markets (market where the following conditions are met: the negotiated elements are homogeneous, buyers and sellers that can reach an agreement can be normally found at any moment and prices are available to the public). Many times however, it is difficult to determine a fair value and it is highly subjective (the result of recent transactions is taken into account, transactions made with similar assets).
- **updated value** – *assets* are booked at updated value of net cash flows that an item is supposed to generate during normal operation. *Debts* appear as updated value of withdrawals of future net funds that is expected to lead to the payment of liabilities during normal operation.

Although the assessment basis most commonly adopted by entities for their financial statements is the historical cost, the IASB Board does not impose a specific base. Thus, entities use different evaluation bases uniquely or in different combinations.

2. ACCOUNTING POLICIES AND ESTIMATION TECHNIQUES FOR EVALUATION BASES

The evaluation bases based on which financial statements are drawn up represent accounting policies which affect significantly the analysis of the balance sheet, the profit and loss account, the treasury flows, the variations of equity and notes on the accounts. Implementation of a accounting policy and, in our case, of the bases of evaluation cannot be achieved without the use of different estimation techniques.

Estimation techniques are methods and estimates adopted by an entity with the purpose of determining what monetary values correspond to evaluation (measuring) bases chosen for the items that compose the financial statements. The demarcation accounting policies – estimation techniques becomes more difficult as both concepts suppose that the entity resorts to one or several bases of measurement (monetary attributes of items that compose financial statements). The methods used to reach the appropriate monetary values, which correspond the selected bases for measuring, do not represent accounting policies (e.g.: reporting at the exit price of a similar good), but estimation techniques. Determining the presenting values in the financial statements of some assets and debts cannot be achieved with precision, but only estimated, because of uncertainties inherent to the activity of an entity. For example, one can make estimates of: uncertain customers, depreciation of stocks, fair value of assets and debts, life duration of fixed assets, etc. The estimation procedure involves professional judgments based on the latest available information. In the absence of recent observations of market prices used to evaluate some assets and debts, future estimates are necessary, for example: assessing the recoverable value of different categories of fix assets, the effect of stocks depreciation, terms which are the subject of future results of ongoing litigations, etc. Estimations are rational assessments of facts and events. The use of objectives estimates is essential in preparing financial statements and one should not the start from the premise that this situation may weaken the credibility (reliability) of information presented through them. The International Board recommends however the presentation of information about assumptions and other sources of uncertainty in estimation at the time of the balance sheet in order to increase relevance, reliability and intelligibility if information reported.

Examples of accounting policies and estimation techniques necessary for their application:

IAS 2 Stocks. The assessment of stocks is carried out at the time of the balance sheet at the lowest value between **their cost** and **their net realizable value** (the sale price estimated that could be obtained during normal conduct of business, minus the estimated costs for the completion of the good and the sale costs). In this case we combine two bases for evaluation: the historical cost and the realizable value.

Evaluating stocks at entry is performed at historical cost (cost of purchase, production cost, utility value). Assessing stocks at exit is carried out by one of two accounting policies proposed by IAS 2: FIFO (first one in – first one out) or AWC (average weighted cost). In order to determine the cost at which stocks might be presented in the financial statements, the entry value is adjusted with the cost of sold goods. **The net realizable value** must be determined on the basis of the most credible evidence (usually, general sale prices practiced on the market) at the time of the estimation of stock value which is expected to be achieved. **The estimation of net realizable value** takes into account the purpose for which stocks are held, e.g. for stocks that will be delivered according to solid contracts for the sale of goods or for services, the net realizable value is represented by the price in the contract. General sales prices on the market are generally chosen for the determination of this value. When prices for raw material show that the cost of finished products will be higher than the net value of achievement, the cost of raw materials will be brought, by

depreciation, to the net value of achievement. In that case, the **replacement cost** of the raw materials may be the best available measure for the net value of realization. IAS 2 also recommends to entities the use of some forecasted values, such as the two methods for assessing stocks: **standard cost** or **the price of retail sales**. Standard cost is used to evaluate entries and exits of stocks during the accounting period because the actual cost is not known.

IAS 11 Building contracts accepts **two methods (managements) for booking contracts for construction**: *the method of advancing works*, method used in most cases (reference management) and *the method of finishing works* (alternative or authorized management). For the use of the first method, the entity recurs to the **estimation of the degree of advancement of the construction work**, either according to the percentage of borne costs, reported to the total cost, or through the physical measuring of works really made.

IAS 16 Fixed assets mentions two possibilities for evaluating fixed assets at a moment ulterior to the initial acknowledgment:

- the reference processing: after its initial accounting as asset, a fixed asset must be acknowledged at its cost reduced by cumulated depreciation; in other words, IAS 16 recommends that the assessment of fixed assets at the time of drawing up the balance sheet to be made at the historical costs (cost of purchase or production costs reduced by cumulated depreciation).
- authorized processing: after its initial accounting as asset, a fixed asset must be acknowledged at its reassessed value (i.e. the fair value at the time of the reevaluation), reduced by subsequent cumulated depreciation and value losses.

After accounting policies are chosen, the entity must establish one or several estimation techniques. The evaluation of fixed assets at the entry is made at historical cost (cost of purchase, production cost, utility value). But in order to establish the entry cost of fixed assets, in some cases, the entity recurs to the initial estimation of costs for asset decommissioning and site restoration. In order to determine cumulated depreciation, the entity recurs to several accounting estimations: *the depreciation method* (determined as a result of estimates and calculations resulted from management decisions and which reflects the pace and manner in which are consumed the future economic advantages as a result of the use of assets), *the utility duration* (its estimation is a matter of professional judgment, being determined by reference to the expected utility of the asset), *the residual value* (the net amount which the entity expects to obtain by selling an asset, at the end of its utility duration, after deducting costs for sale). **The fair value** of fixed assets is usually their market value determined through estimation. For land and buildings, the fair value is determined by experts and is, in general, the market value. For fixed assets strictly specialized, the fair value is identified, most times, with the replacement cost reduced by depreciation.

IAS 17 Leasing contracts. In contracts for financial leasing we meet as bases for evaluation both the realizable value and the updated value, thus the asset and implicitly the debt must be recorded in accounting of the lessee at the minimum amount between fair value and the updated value of minimum payments. In the lessor's accounts, its debt will be recorded at the fair value of the asset granted on leasing. The application of these policies uses many estimations: the option to purchase, the residual

value, quarterly royalties, the implicit interest rate, the method of depreciation, the duration of utility, etc.

IAS 36 Asset impairment. At the moment of preparing financial statements, whether as a result of the impairment test, the accounting value of an asset is greater than the recoverable value, an impairment is recorded and will be presented in the balance sheet under *recoverable value* (accounting value reduced by the sum of recorded value losses). If the accounting value is less than the recoverable value, the asset will appear in the balance sheet at its accounting value. The accounting value is obtained from the entry value reduced by the amount of depreciations and value losses, with reference to that asset. The recoverable value is the highest value between net fair value (fair value diminished by sales' costs) and its utility value (updated value achieved by estimating future cash flows expected from the continue use of an asset and from its cession at the end of its use). This rule also combines the net realizable value with the updated value, and uses multiple estimation techniques. The net fair value is either that from an irrevocable sale agreement or the market price of the asset, or the price of the latest transaction. Estimation of the utility value is achieved by estimating future cash inflows and outflows, generated by the continued use of the asset and its final output and by applying an appropriate update rate to these future cash flows.

IAS 37 Provisions, possible liabilities (contingent) and possible assets (contingent). The value of the provision presented in the financial statements should be the best estimate of costs necessary for paying off a present debt, at the date of the balance sheet. When the effect of the value- time of money is significant, the provision is calculated at the **updated value** of the estimated costs needed for paying off the debt. The used update rate must be the one before taxation to reflect an assessment on the market of the value-time of money and the specific risks of the debt. To estimate the costs, one will take into account the experience of similar transactions and, in some cases, the views of independent experts.

- **presentation on the balance sheet of client receivables (uncertain clients)** in a situation where there is a likelihood of non-recovery of receivables in full, is performed at the realizable value by correcting the entry value with the loss_of value determined by the estimation of the degree of non recovery of receivables.

3. TYPES OF EVALUATION IN THE PLAN OF PRACTICAL APPLICATIONS

1. Case study concerning the use of the historical cost. An entity, "Beta", acquires an oil facility in the following conditions: price negotiated with the supplier 500000 m.u.; expenditure on transportation and installation charged by the supplier 80000 m.u. According to the license contract, the company has an obligation, at the end of operation, to remove the plant and to restore vegetation. Duration of contract: 8 years. Costs estimated for decommissioning the facility and restoring vegetation: 30,000 m.u. The discount rate: 10 %. Facility reception for the value invoiced by suppliers (500000 + 80000 = 580000 m.u.):

580000 m.u.	Facilities	=	Asset suppliers	580000 m.u.
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Estimated cost for decommissioning the facility and restoring vegetation
 $[30000 \times (1+10\%)^{-8} = 13995 \text{ m.u.}]$:

13995 m.u.	Facilities	=	Provision for decommissioning the assets and other similar actions	13995 m.u.
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Initial cost for the facility is: $580.000 + 13.995 = 593.995 \text{ m.u.}$

2. Case study for determining the net realizable value. An entity has in stock at December 31st year N 5.400 units of finished products A with a production cost of 5.10 lei/unit. The market price of the products at 31.12. year N is 5.20 lei/unit, and the expenses for sale represent 0.2 lei/unit. According to IAS 2, we will find out the value of finished products in the balance sheet on 31.12. year N. According to IAS 2 stocks are evaluated in the balance sheet at the lowest value between cost and net realizable value.

Production cost = $5400 \text{ units} \times 5.10 \text{ lei / unit} = 27540 \text{ lei}$

Net realizable value = Estimated sale price – Sale expenses

Net realizable value = $5400 \text{ units} \times 5.20 \text{ lei/unit} - 5400 \text{ units} \times 0.2 \text{ lei/unit} = 27000 \text{ lei}$

Stocks will be evaluated at minimum (27540 and 27000) = 27000 lei.

3. Case study on the use of the updated value. Between the entities ALFA (lessor) and BETA(lessee) a rental- financing contract is signed with the following characteristics: signing date January 1st year N; duration of contract 3 years; life duration of the good 8 years; 3 rates of 200000 lei are included, payable in the last day of the year; the possibilities of expressing an option for buying at the end of year 3 at the price of 60000 lei; fair value of the good at the date of the signing 461806 lei; residual value of the asset is 70000 lei; implicit annual interest rate calculated by the lessee 20%. According to IAS 17, we will present the recordings of the lessee for the year N and an excerpt from its financial statements.

a) VAPML calculation:

$$\text{VAPML} = \frac{200.000 \text{ lei}}{1,2} + \frac{200.000 \text{ lei}}{1,2^2} + \frac{200.000 \text{ lei}}{1,2^3} + \frac{60.000 \text{ lei}}{1,2^3} = 456019 \text{ lei}$$

b) According to IAS 17, the lessee records the rented asset at the lowest value between the good's fair value and the updated value of minimal payments.

Min (461806 lei; 456019 lei) = 456019 lei.

c) According to IAS 17, in the financial statements of the lessee, payments in the name on the rent must be divided into two components: financial expense and depreciation of the debts' balance, this way:

Day	Cash flows	Interests	Repayment of due capital	Remaining capital
01.01.N				456.019
31.12.N	200.000	$456019 \times 20\% = 91204$	$200000 - 91204 = 108796$	$456019 - 108796 = 347223$
31.12.N+1	200.000	$347223 \times 20\% = 69445$	$200000 - 69445 = 130555$	$347223 - 130555 = 216668$
31.12.N+2	260.000	$216668 \times 20\% = 43334$	$260000 - 43334 = 216668$	0
Total	660.000	203983	456.019	

d) Depreciable value = 456019 lei – 70000 lei = 386019 lei

$$\text{Depreciation for year N} = \frac{386019 \text{ lei}}{8 \text{ years}} = 48252 \text{ lei}$$

e) Accounting recordings:

1) on the day of the signing of contract:

456019 lei	Asset	=	Debts from rental financing contracts	456019 lei
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2) payment of fees on 31.12.N:

108796 lei	Debts from rental financing contracts	=	Bank accounts	200000 lei
91204 lei	Interest expenses			

3) Depreciation for year N:

48252 lei	Debts from rental financing contracts	=	Bank accounts	48252 lei
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f) At the end of year N in the lessee's financial statements are included:

- in the balance sheet: asset at net accounting value = 456019 lei – 48252 lei = 407767 lei and debts from rental financing contracts = 456019 lei – 108796 lei = 347223 lei
- in the profit and loss account: financial expenses, respectively interest expenses 91204 lei and depreciation expenses 48252 lei.

4. PARTICULARITIES OF EVALUATION SYSTEMS

Three decades after the creation of the International standardization board, and despite the results of the harmonization process, the accounting pictures describing the same reality differ seriously from one country to another. This situation continues to cause confusion among financial statement users that are looking for reliable and relevant information to improve their decisions.

4.1. Evaluation systems used in Romania

In the first stage of the Romanian accounting reform the historical costs pattern was used, becoming the basis for evaluation used as a rule in the development of the financial statements. At this stage, as a result of hyperinflation shocks which affected Romanian economy, the historical cost has become less relevant to the decision-making. In the absence of an inflation accounting, entities have resorted periodically to reassessment, which were imposed by government decisions or by the entities' decision. In the second stage of Romanian accounting reform carried out by the Order No 94/2001 and 306/2002 favourable ground is created for the use of other bases for assessment encountered in the European and international accounting standards. The Order no. 94/2001 refers solely to the historical cost as basis for assessment, even

though the International accounting standards invite to the use of a wider range of options concerning the evaluation system of qualitative structures recorded in the accounting statements, and the 4th European Directive allows a series of alternatives to the evaluation based on historical cost. Even if they keep the old rules about the moments of evaluation of the elements in the balance sheet (the evaluation on entry, on inventory, on balance sheet and on exit), the new program of accounting reform (by OMFP 1752/2005) comes with certain changes to the problematic of evaluation. By the harmonization of Romanian accounting regulations with European accounting directives and by incorporation the International accounting standards, with a focus on professional reasoning, Romanian entities will be able to opt between the basic treatment of historical values and the alternative treatment of current values (current cost, residual value, updated value, fair value), depending on the accounting policy adopted by the entity, but also according to the needs of key users of accounting information. The order MFP no. 3055/2009 revokes order MFP no 1,752/2005 concerning approval of accounting regulations in accordance with European Directives, and items listed in annual statements are assessed in accordance with the general accounting principles provided in the present section, according to the commitment accounting. Referring to the concept of *fair value*, it has made its appearance also in the Romanian accounting rules by OMFP 94/2001 and has constituted a real revolution in the field of accounting. In the Romanian accounting environment was recorded an option for combining evaluation system based on historical cost with the system based on fair value.

4.2. Evaluation systems used in France and Germany

In France, the Code of Commerce and the General Accounting Plan (PGC) consider the historic cost as the primary evaluation criterion. In Germany, the main German state policy is the stability of currency, hence the strict observation of the principle of historical cost. We conclude that both France and Germany are moving away from the provisions of the 4th Directive, which allows the use of other bases of assessment. In the French General Accounting Plan, the conventions of general assessment and presentation of accounting information are: historical cost, caution, non-offsetting, intangibility of the opening balance sheet. According to PGC, evaluation on historical cost entails three phases: defining the entry value, determining the value of inventory and calculating the value at the closing of accounts or the balance sheet value. According to each case, the entry value can be the purchase cost, the production cost, or the venal value. The historical cost corresponds to the purchase cost for assets acquired onerously and to the production cost, for goods manufactured by the entity. French accounting law provides several exemptions from the application of historical cost. For consolidated accounts, it is allowed to use the rules of assessment, taking into account price changes or replacement values. Also, companies may use for their consolidated financial situations the indexed historical cost method or the replacement value for depreciated tangible assets and for stocks. These rules of evaluation, derogating from the provisions of the Code of Commerce, are rarely put into effect. Other general exemptions result from the possibility of assessment, in

individual accounts, of the participation titles by equating, by using the market value for evaluating time contracts and options of interest rates and for reassessment of the assembly of tangible and financial assets approved by the Code of Commerce. If the tangible and financial assets of an entity are revalued, the appendage must indicate: the method used the list of concerned items and their size, the fiscal taking over of the revaluation difference and the evolution of involved liability items; if French entities establish their financial situations on historical cost, they have no obligation of informing about evaluations. In situations of inflation, in France, with the exception of some revaluation operations or other fiscal practices, which aim at minimizing the adverse effects of inflation on the accounts' loyalty, and, in particular its result, the historical cost principle is still the legal principle for financial accounting. French entities can keep, on a voluntary basis, an accounting of inflation, possibly in the management accounting, when the economic environment requires it. Conversions of financial statements of subsidiaries in hyperinflationary countries do not address to all entities. As such, the information varies considerably from one entity to another. The most often used processing is the revaluation of non-monetary assets.

4.3. Evaluation systems used in the United Kingdom

In Britain, when preparing financial statements, for each category of assets or debts, there must be selected one measurement (evaluation) base: either the historical cost, or the current value, according to Firm law. The selected base will be the one that best ensures the objective of financial statements and requirements on quality characteristics of the financial information, given the nature of assets or debts covered and circumstances concerned. An asset or a debt, assessed by using the historical cost basis, is initially registered at its transaction cost. An asset or a debt, which is evaluated by using the current value as a base, is initially registered with its current value, at the time of its purchase/assumption. However, such assessments will be accepted only if there is enough evidence that the value of the asset or the debt has changed and that the new value of the asset or debt can be reliably measured.

Alternative evaluation bases. Under British accounting rules, assets may be expressed at historical cost, replacement cost or net realizable value and debts, at historical cost, cost of debt settlement by the most economic means available or, in some cases, at the value the entity may engage, commonly, through the issuance of the similar debt. The only major feature that distinguishes these assessment bases is whether they are based on historical cost or on current value.

Alternative evaluations based on current value. The current value of an asset may be determined by reference to the entry value (replacement cost), the exit value (net realizable value) or the utility value (the current value of treasury flows expected from the continued use and final selling made by the current owner). For some assets (e.g., investments in the form of securities) the three alternative assessments based on current values lead to identical values, with small differentiation on transaction costs. However, for other assets (e.g., assets specific a certain domain of activity), the differences between alternative assessments may be significant. It is therefore necessary, to select one of these alternative assessments of the current value, the one

which maximizes the relevance of the current value base. Thus, the current value expresses is most relevant when it reflects the loss which the entity would support if it would be dispossessed of the assets involved in the operation. This assessment is known as "dispossession value" or "enterprise value" and it depends on the circumstances in which the entity is found in (Feleaga, & Malciu, 2004). The current value of a debt is likely to be selected through a similar manner (using the concept of "salvage value"). The salvage value of a debt is the smallest value at which the entity can deprive itself of a liability (the lowest value at which the debt may, hypothetically, be paid off).

4.4. Evaluation systems used in the United States of America

In the United States the FASB (Financial Accounting Standard Board) presents five bases of assessment used in practice: the historical cost, the current cost or the replacement value, the market value, the net achievement value, the updated value of treasury flows. FASB encourages any form of assessment, as long as it ensures the pertinence and the reliability of the information provided by financial statements, but the evaluation method considered the most appropriate for determining the value of a good is the method based on updated value of future treasury flows. This concept is obviously superior to the concepts of past values (historical costs), current entry prices (replacement cost, renewal cost, etc.) and current exit price (net achievement value, market value, liquidation value, etc.). The nearest concept to the one of updated value is the concept based on current exit prices. In American accounting it is prohibited the use of revalued values in financial statements.

By contrast, standard FAS 89 encourages companies to publish, for each of the last five years, an information as comprehensive as possible, on the inflation effects, in particular the restated turnover, the regular result calculated on the basis of the current costs, the gain or loss of purchasing power, regarding the net monetary position, changes in current cost of tangible assets, net assets calculated on the basis of the current costs, etc. In terms of inflation accounting, standard FAS 52 considers that a currency affected by inflation may not be regarded as a functional currency. Therefore, financial statements drafted in the currency of a hyperinflation economy must be converted, first into a functional currency, by using that temporal method, afterwards the functional currency is translated into a strengthening currency, by using the closing exchange rate method. By applying this process we reach, in fact, a revaluation of the financial statements in question.

5. CONCLUSIONS

The choice of the evaluation system used by an entity in its financial statements raises numerous controversies. The international accounting regulations provide the possibility to choose between several methods of assessment, the one that is considered the most suited to the entity's policy. The historical cost has been and still remains the most used base of evaluation. Its use gives an indisputable advantage: it provides the spatial comparability of entities, which use the same system of

assessment. **The method of evaluation at historical cost** has many advantages, such as: *historical cost is easily verifiable* (it is recorded on the basis of evidence); *it is established objectively*; *it is easily applied*; *by using the same method of assessment by entities (historical cost) ensures their spatial comparability*.

Among the drawbacks of the historical cost principle are: the under assessment or over assessment of items in the financial statements; over assessment of income for the period, in an unstable economic and monetary environment (as it is in Romania), the use of historical cost is highly criticized, because, in times of inflation, the evaluation at historical costs does not reflect the real value of the elements in the balance sheet and from the profit and loss account; entities operate in an environment influenced by disturbing factors, therefore, the evaluation of items in the financial statements at historical cost is unable to provide a faithful image. Since the application of historical cost does not satisfy the current demands of fidelity required by financial statements, other evaluating methods are used: replacement cost, achievement value, updated value, fair value. Investors are looked upon by accountant regulators as being more important than other categories of users, and the financial information they need is not exclusively historical. Investors must also have access to information oriented towards the future, in order to assess the performance of an entity. Evaluation based on fair value best expresses the current value of future cash flows.

Among the **advantages of fair value** we include: *it leads to more reliable financial statements, it reduces the difference between the accounting value and the stock market value for listed entities*, as opposed to historical cost, the fair value allows comparison of actual performance of the entity, as it represents an updated value, observed on the market; the result is evaluated in a more reliable manner. The use of fair value also has its **disadvantages**, such as: *it is difficult to calculate (especially when there is no active market for that element), requiring many times the knowledge of an assessment expert; most financial instruments are not traded on the assets' market and, as such, they do not have a fair value easily determined and compared from an entity to another; the application cost of this method is quite big*.

The international (and European) accounting rules allow entities to choose between systems of evaluation, according to the interests of managers, shareholders. The existence of several options in choosing the method of evaluation is justified by the fact that in many countries there are traditions that can not be easily changed (for example, in France and Germany, the historical cost assessment is a basic principle of the accounting). And yet, the comparability of financial statements of entities is affected, because of this "freedom" of choice of the evaluation method. For example, if an entity uses the evaluation at historical cost and another entity presents in its financial statements certain elements (especially fixed assets) evaluated at fair value, the comparison of financial statements, particularly of financial results of the two entities, is not relevant.

In the context of globalization of financial markets and national economies, it is required to present the financial statements according to the same accountant standard, in order to allow their comparison. Especially for large entities, quoted on international capital markets, it is absolutely necessary to present annual financial statements according to an international accounting standard (FASB, IASB). European

accountant regulators acknowledge the need to harmonize the European accounting directives with the international accounting standards.

Although the historical cost is an objective and verifiable basis for assessment, its use is not justified for the evaluation of all elements in the financial statements, given that financial statements made on historical cost do not always reflect an accurate image of the entity. Considering the limits of the historical cost, but also those of fair value, we express our view that the two methods of assessment should continue to be combined, taking into account however that fair value has more advantages than the historical cost, as a future-oriented accounting model.

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E-COMMERCE WITH ONLINE PAYMENT THROUGH BANK CARD

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CĂTĂLIN NICOLAE BULGĂREA ***

ABSTRACT: *The e-commerce has become a routine part of human life because it offers major advantages: convenience (it's no longer necessary to visit a store to be able to shop), efficiency (the buyer can visit several virtual shops in a very short time, the crowd of shops and the frustration caused by the lack of parking spaces available can be avoided, the customer can choose and compare the desired products taking in consideration a set of characteristics such as price, grammage, color, delivery dat, etc.) and the development of secure solutions for online payment (through: bank cards, ePay, cybercash, SmartCard, electronic funds transfer, Ecash). In the last decade, the electronic payment systems have been improved, reaching high levels of security and speed, acquiring a private, confidential, decentralization and internationalization character.*

KEY WORDS: *e-commerce; payment; online; card*

JEL CLASSIFICATION: *M31*

1. INTRODUCTION

With the increasing number of Internet users, the e-commerce has captured the interest of both individual and organizational consumers. If **e-commerce** can be viewed as a process of sell - buy or exchange of products, services or information via computer networks, **"electronic business"** (e-business) also involves serving customers, collaborating with business partners and/or leading an organization through electronic means.

The development of e-commerce application was the logical sequence of creation, development and use of websites of organizations, this trend being motivated

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by the desire of most organizations to not limit the functioning of their sites in order to achieve objectives with exclusive informational character and to make them efficient by attaching an obvious commercial component. From the perspective of direct marketing, the e-commerce represents a new way of implementing the sale by mail, the general rules for designing, organizing and conducting its activities and specific campaigns being implemented with the necessary adjustments required by the used communication medium – the Internet, which substitutes partial or all postal services and/or courier services. (Vegheş, 2003, pp. 359)

2. THE E-COMMERCE CHARACTERISTICS

The e-commerce channels are of two types (Lefter, et al., 2000, p. 172):

- **Commercial channels** – provide online information and marketing services.
- **Internet** – is a global computer network that allows instant, decentralized and global communication. Users can send e-mail, exchange views, purchase products and access news and business information.

The main advantages offered by e-commerce concerns:

- **for buyers**, to:
 - the consumers' ability to obtain and compare information about products/brands, costs, prices, features, quality, without coming into direct contact with the producer/distributor;
 - the convenience - no need to go to the store;
 - the low level of prices;
 - the efficiency through the free access to information and various products and the availability 24 hours per day, 7 days per week.
- **for retailers**, to:
 - the possibility to customize the offers according to the consumer preferences, needs and requirements (computer can hold customers' personal data, location, browsing habits, etc.) through the contact with customers 24 hours per day, 7 days per week;
 - the reduction of operating costs;
 - the optimization of supply process and inventory management;
 - the improvement of marketing activity;
 - the opportunity of expansion on international markets (the e-commerce has no territorial boundaries, the company could present its offer and meet the orders of any customer from the world).

All the issues mentioned above show that, *in the era of information, the sharing process is initiated and controlled by the consumer* (Kotler, 2000, pp. 664). Despite the obvious benefits given by foreign trade, for both traders and purchasers, there are also some disadvantages:

- **for buyers:**
 - the transactions security (some buyers are reluctant in providing information about the bank cards used for performing various online payments);
 - no direct contact with the seller;

- the lack of access to technology (the number of households equipped with computers, the Internet penetration rate etc.).
- **for retailers:**
 - the restrictions on product categories that can be sold online (eg.: perishable food, unique jewelry etc. will never be sold successfully online);
 - the high costs of integrating databases and traditional software for transaction processing with the software specific to e-commerce;
 - the possibility of fraud (the use of false information regarding the identity, of "cloned" cards);
 - the data security (the possibility of unauthorized access to database of the retailer);
 - the organization of specialized courses for staff training and development;
 - the legislation regarding e-commerce and online payments.

The transformation of those who only "turn the merchandise upside down" in real customers requires strong direct marketing strategies. In this environment, the customer-oriented strategies are extremely important. Fortunately, direct traders have years of experience in customer-oriented strategies, well run and efficient. (Stone, 2004, pp. 254)

3. STATISTICS OF E-COMMERCE WITH ONLINE PAYMENT THROUGH BANK CARD

In Romania, the first online shop was launched in 1997 by PC Net as the CyberShop.ro that sold music CDs. EShop.ro subsequently appeared, the first store that introduced the concept of "shopping cart". Gradually, on this online marketplace, have joined other retailers such as: Romanian Music Online AllOnline.ro, eMania.ro (launched in autumn 2000), Rate.ro, MagazinulTău.ro (launched by the Best Computers retailer). OKazii.ro, an online auction site similar with the famous eBay, was created by Netbridge Investments Company, although the Romanians' confidence in transactions over the Internet hardly existed.

In the late of 2001, eMag.ro was launched – currently the biggest online shop in Romania. Initially, the main role of e-commerce websites was one of informing, the majority of visitors (few) choosing especially for viewing the retailers' catalogues of products and less for purchasing online. If in the United States the first online payments using bank cards were made in 1994 in Romania the first transaction of this kind was made in 2004, when 3D Secure security software (an antifraud program, which is mainly designed to improve online transaction security by requiring a password for each online payment) was released by the two famous organizations issuing the cards – Visa and MasterCard.

The 3D Project was initiated by Secure RomCard in September 2003 and completed in March 2004, when all VISA and MasterCard certifications have been obtained by four Romanian banks: Romanian Commercial Bank (BCR), Raiffeisen Bank, "Ion Tiriac" Commercial Bank and Romania Alphabank. The RomCard domain of activity covers: the authorization of transactions made through bank cards, the database administration, the national and international switching, the settlement and the

processing of transaction with cards, the "3D Secure" solution for accepting and issuing banks for "Verified by Visa" and "MasterCard Secure Code" e-commerce services.

By implementing 3D Secure system, Romania has become a center for processing online payments in CEMEA region (acronym for Central Europe, Middle East, Eastern Europe and Africa), provided that, at European level, there were at that time, only three countries experiencing this standard, namely Britain, Spain and Portugal. In 2004, the volume of transactions in 3D Secure system (Verified by Visa and MasterCard Secure Code), reached the value of 19,410 (transactions), of which 84% were recorded in the last three months of the year. The value of purchases made in virtual stores, configured 3D Secure by RomCard (leader in Romania for providing services relating to transactions with bank cards) increased significantly in the last three months of 2004, in terms of the transactions both in USD and in Euro (Table 1).

Table 1. The value of purchases made in virtual stores, configured 3D Secure by RomCard - in the 4th quarter of 2004

4th quarter of 2004	Lei (ROL)	USD	Euro
October	419,376,301	29,287	6
November	501,445,478	701,511	35,422
December	453,753,235	2,050,949	65,086
TOTAL AMOUNT	1,374,575,014	2,781,747	100,514

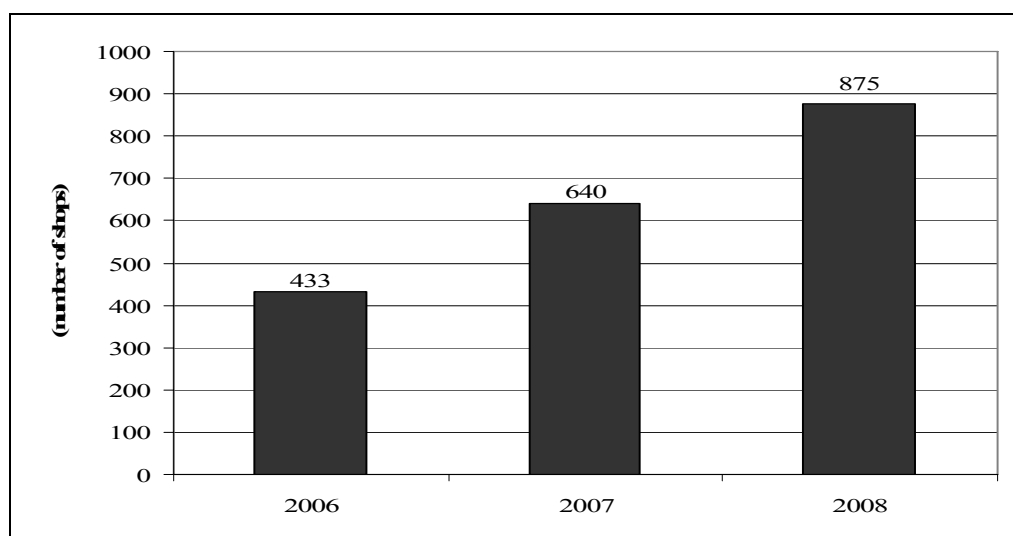
Source: *A study of Romanian market potential – E-Commerce*, [Online], Available at: <http://www.comert.info/piata-valoarea-romcard.html> [Accessed 20 June 2010]

In **2005**, the value of online transactions has increased 18 times as compared to 2004 (when the value recorded of \$ 3.5 million), reaching to \$ 44.3 million, as a result of online payment with bank cards. In **2006**, the number of transactions has increased steadily, with an average of 15% per month, exceeding the threshold of 13.500 in December (transactions made in Romanian online stores, configured 3D Secure), their value being about € 9.5 million.

The year **2007** brought a significant increase of the value of online transactions made with bank cards in the 3D Secure system, reaching € 35 million.

A year later, in **2008**, the e-commerce knew an impressive development, the first semester ending with a balance of approximately € 26 million, which is almost 3 times higher than in 2006. The number of Romanian online stores, enrolled in 3D Secure system, which were active and had turnover in 2008 reached the value of 186, the main areas that generated the largest volume in e-commerce being, in this order: the travel services and bookings tickets, the payment of mobile phone bills and IT & C products, the electronics and appliances. Nearly 16 million of the 26 million were generated by cards from abroad (it is not known precisely if these cards were issued by foreign or Romanian banks), even if the number of transactions in foreign currency (about 79.000) was lower than that of transactions in lei (over 220,000).

During the 2006-2008 period, an increase of 50% per year was registered, in terms of number of stores which have been engaged in e-commerce (Figure 1).



Source: Radu, A., et al. (2008) *A study on the development of Romanian e-commerce*, pp. 12, [Online], Available at: <http://www.izzisale.ro/Studiu-eCommerce-ANC.pdf> [Accessed 20 June 2010]

Figure 1. The evolution of the number of stores which have been engaged in e-commerce in the 2006-2008 period

Interesting is also the evolution, **between 2006-2008**, of e-commerce, on product groups. Thus, it is noted each year, an increase in popularity for certain product segments (Table 2):

- in 2007: to notebooks, stationery, networking, software, toys, automotive, footwear, audio, video, music;
- in 2008, to computers, telephones, movies, art, industrial, automotive and clothing; this year the first reduction was registered for a group of products, namely music.

The differences, that occur between every two years, are based on the number of shops that go bankrupt (100-150), a number that is difficult to be approximated, given that it is not stated, but it must be identified through market research.

The most significant development was experienced by the computing stores (specific to the industry), followed by those which market similar products on the horizontal (digital equipment – audio and video supplies for printing operation; muzică CDs etc.). Subsequently, there has been an increase of the demand for footwear, clothing and art, as a result of a mainly involvement of the female segment.

In the first three months of **2009**, the value of the e-commerce with online payment through bank cards was € 18.58 million, registering an increase of 59% as compared to the same period of 2008. The number of transactions recorded in the same period was approximately 256,000.

The online payments through bank cards have been growing by 20-22% in the total methods of payment. The total value of transactions through ePayment platform was € 17 million, the number of transactions reaching the value of 220,000. These

figures show that, under the current economic conditions, the e-commerce is not affected significantly.

Table 2. Analysis of e-commerce with online payment through bank cards, on product groups, between 2006-2008

Shops' specificity	Number of stores 2006	Number of stores 2007	Number of stores 2008	% 2006	% 2007	% 2008	2007 vs. 2006 (%)	2008 vs. 2007 (%)
Computers and accessories	75	154	365	17,32	24,44	41,71	105,33	137,01
Laptops	12	124	201	2,77	19,68	22,97	933,33	62,10
Networking	7	113	190	1,62	17,94	21,71	1514,2	68,14
Software	8	132	195	1,85	20,95	22,29	1550,0	47,73
Internet Services	4	-	-	0,92	-	-	-	-
Phones	21	85	247	4,85	13,49	28,23	304,76	190,59
Stationery and office supplies	6	56	74	1,39	8,89	8,46	833,33	32,14
Print	7	-	-	1,62	-	-	-	-
Music	15	49	40	3,46	7,78	4,57	226,67	-18,37
Film	5	7	28	1,15	1,11	3,20	40,00	300,00
Audio Equipment	7	118	246	1,62	18,73	28,11	1585,7	108,47
Video Equipment	3	77	251	0,69	12,22	28,69	2466,6	225,97
Books	46	93	96	10,62	14,76	10,97	102,17	3,23
Newspapers and magazines	5	6	14	1,15	0,95	1,60	20,00	133,33
Gifts	17	35	54	3,93	5,56	6,17	105,88	54,29
Flowers	10	20	26	2,31	3,17	2,97	100,00	30,00
Auto Accessories	5	53	105	1,15	8,41	12,00	960,00	98,11
Products for children	13	31	35	3,00	4,92	4,00	138,46	12,90
Clothing	15	35	57	3,46	5,56	6,51	133,33	62,86
Footwear	1	24	24	0,23	3,81	2,74	2300,0	0,00
Lingerie	4	13	17	0,92	2,06	1,94	225,00	30,77
Sex Shop	13	13	14	3,00	2,06	1,60	0,00	7,69
House Control	12	-	-	2,77	-	-	-	-
Electronics	27	-	-	6,24	-	-	-	-
Appliances	25	60	139	5,77	9,52	15,89	140,00	131,67
Food deliveries	4	4	10	0,92	0,63	1,14	0,00	150,00
Art	11	12	60	2,54	1,90	6,86	9,09	400,00
Jewelry	3	11	24	0,69	1,75	2,74	266,67	118,18
Toys	9	38	59	2,08	6,03	6,74	322,22	55,26
Pharmaceuticals	15	32	53	3,46	5,08	6,06	113,33	65,63
Sporting Goods	16	33	44	3,70	5,24	5,03	106,25	33,33
Industrial	8	23	76	1,85	3,65	8,69	187,50	230,43

Source: Radu, A., et al. (2008) *A study on the development of Romanian e-commerce*, pp. 12, [Online], Available at: <http://www.izzisale.ro/Studiu-eCommerce-ANC.pdf> [Accessed 20 June 2010]

Also, the main categories of products purchased in the first three months of **2009** (telecommunications, tourism, retail and services), excluding hardware, mobile phones and recruitment services, registered significant increases as it follows:

- the number of transactions in the telecommunications sector increased by 85% in the first quarter of 2009 as compared to the same period of 2008;
- the number of online transactions in tourism and transport sector increased by 111% in the first three months of 2009 as compared to the first quarter of 2008 (this was due mainly to the special offers of tourism and transport operators, who have adapted their products/services to the crisis conditions, managing to attract a large number of customers, thus, generating a strong growth of sales);
- the number of orders, from the service sector, made to the stores working with GECAD ePayment, grew by 80% as compared to the first three months of 2008; the online assurances had a spectacular evolution, the number of these assurances being over five times higher in the first quarter of 2009 as compared to the same period of 2008;
- the number of transactions from online retail sector was 80% higher than the first three months of 2008 (it was affected only by the 22% decrease in demand for hardware products, namely by the 123% increase in sales of software; a positive evolution was registered in the orders for flowers, gifts, toys, books and clothing, paid online through bank cards).

In the first quarter of **2010**, the volume of online transactions through bank cards increased by 70% as compared to the same period of 2009 to € 31.85 million, the number of processed transactions being 603,437.

Through the ePayment platform 575,000 transactions were processed, with a value of € 30.25 million. In the first three months of 2010, the average value of a transaction was € 52, from € 77 in the same period of last year. According to the electronic payment service provider, Gecad ePayment, most products sold online during this period were part of the following categories: telecommunications, tourism, services, payment of utilities, retail and entertainment. The largest increase of the number of transactions had those from the tourism sector, with 270% more than last year, this showing that both buyers and tour operators have realized the benefits provided by e-commerce to their activity. Dramatic increases were registered for telecommunications, entertainment and utility payments (230%, 160% and 178%), indicating that among users a custom of online payment through bank card was created for current expenditure, but also for new purchases. (The Financial Newspaper, 9th April 2010, [Online])

4. CONCLUSIONS

In the last decade, the Internet has known an impressive evolution, having a major impact on all aspects of life. Thus, there appeared a need for transactions security and privacy, the traders desire to increase the satisfaction of consumers, given that human interaction is minimal and the technological one is maximum.

Although e-commerce offers a number of key advantages (the possibility of transactions 24 hours per day, throughout all the year, from almost any location, of

choosing and comparing, of participating in virtual auctions, of interacting with other buyers, so comparing experiences and facilitating the competition - which generates lower prices, the reduction of costs for traders, the possibility of extending on international markets and adapting the products according to consumers profile), is a lack of universally accepted standards regarding quality, safety and confidence in online payment transactions through bank card.

Regarding the Romanian e-commerce, the trend is an upward one. The number of online shops increases significantly from year to year like the number of consumers who shop online, the security standards are aligned with international ones; there are also various online payment methods and the quality of products is generally high. Based on the above data, we can talk about an e-commerce industry in Romania, but which should be carefully examined, better regulated and promoted.

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EUROPEAN ECONOMETRIC ANALYSIS OF THE INTERCONNECTION OF CONSUMPTION AND GDP APPROACHED ACCORDING TO EIEWS PROGRAM

**ANA PETRINA STANCIU,
NADIA ELENA STOICUȚA ***

ABSTRACT: *The hereby paper deals with an econometric analysis of the interconnection of consumption per capita and GDP within 27 European Union member states during a three years' period. The main purpose of the paper is to show the manner Eviews program is able to handle such an approach, the stages to be followed as well as the carrying out of certain previsions.*

KEY WORDS: *Gross Domestic Product (GDP); Method of Least Squares (MLS); Ordinary Least Squares (OLS); Eviews Program*

JEL CLASSIFICATION: *C24, E20*

1. INTRODUCTION

The subject of the paper regards the analysis of interconnection between consumption per capita and GDP per capita, at a European level, perceived being the expression of the Keynesian consumption function theory, interpreted as a linear dependence between private consumption and disposable income.

In order to draw out this econometric analysis, the authors have employed data sources belonging to 27 member states of the European Union, during a three years period; the analysis has as an endogenous variable the consumption per capita and as an exogenous variable the GDP per capita. The measuring unit used for the emerging data is Euro per capita, calculated according to current prices. Due to this reason, the data have been re-interpreted according to the index of the Consumption Prices in order to provide the similar prices of year 2000 and in order to ensure data comparability. The data to be processed are displayed by Table 1.

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Table 1. The data to be processed

Country	GDP/capita			consumption/capita		
	2000	2001	2002	2000	2001	2002
Belgium	24600	13065	6937	18400	9851	5203
Bulgaria	1700	1044	618	1500	934	559
Czech Republic	6000	3493	2043	4400	2517	1519
Denmark	32500	17331	9098	23700	12623	6691
Germany (including ex-GDR from 1991)	25100	13241	6855	19500	10355	5352
Estonia	4500	2702	1573	3400	2013	1187
Ireland	27600	16134	9207	17200	10011	5658
Greece	12600	7156	4005	11400	6408	3641
Spain	15700	8889	4931	12000	6760	3705
France	23700	12756	6741	18700	10048	5344
Italy	20900	11484	6164	16400	8967	4807
Cyprus	14500	8105	4292	11700	6579	3554
Latvia	3600	2175	1230	3000	1794	1025
Lithuania	3500	1980	1106	3100	1726	952
Luxembourg	50200	27007	14884	28000	15644	8687
Hungary	5000	3184	2061	3700	2416	1560
Malta	10800	5714	3067	9100	4980	2551
Netherlands	26300	14568	7710	19000	10600	5702
Austria	25900	13661	7198	19200	10142	5259
Poland	4900	2917	1478	4000	2396	1263
Portugal	12000	6659	3596	9900	5496	2992
Romania	1800	1266	814	1600	1076	703
Slovenia	10800	6233	3557	8200	4757	2660
Slovakia	4100	2436	1448	3100	1882	1146
Finland	25500	13731	7148	17800	9597	5083
Sweden	30000	14579	7782	22700	10973	5942
United Kingdom	27200	14315	7590	22900	12152	6509

Data Source: Eurostat

The mathematical model of this application is displayed below; it is going to be solved owing to the Eviews 7.0 software package.

2. THE MATHEMATICAL MODEL

This econometric model employs the following notations for the variables that enter its composition:

- C_t is the total consumption per capita;
- GDP_t is The Gross Domestic Product per capita;

Using the above variables, we are going to define the following econometric model:

$$C_t = b + a \cdot GDP_t + \varepsilon_t \tag{1}$$

where a and b , and c are the parameters to be determined after applying the method of the smallest squares

As the mathematical model has been stated, first, we are going to descriptively analyze the data series used by this model.

Accordingly, after processing the two data series, information regarding the statistical indices is extracted; they are exhibited by the graphs below:

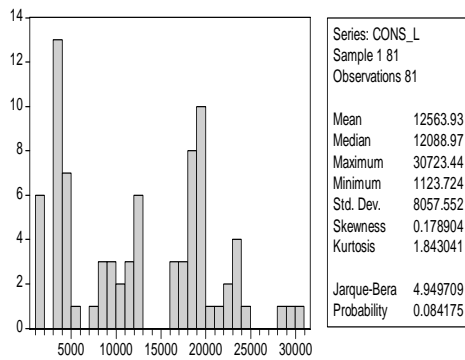


Figure 1. Descriptive statistics for consumption per capita

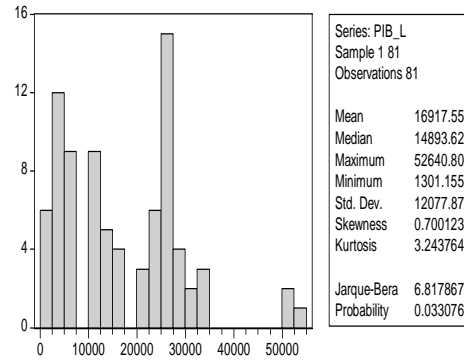


Figure 2. Descriptive statistics for GDP per capita

In order to test the normal distribution of the two data series, we have displayed the histograms of the two series where one can notice the mean, median, minimum and maximum values, standard deviation, asymmetry coefficient, kurtosis, and Jarque-Bera test.

Within the histograms displayed above, one can see that the distribution of consumption is platikurtotic and the distribution of GDP is leptokurtotic. As the value of the probability is smaller than 10%, one may assert with certainty that the null hypothesis is rejected.

The analysis of the corelo-grams shows that there is a direct link between the two variables (consumption and GDP), and the type of the link is linear; such facts are also shown by the graphic representation of the data cloud. The analysis of the corelo-grams shows that the series are stationary; the autocorrelation coefficients (AC) start at 1 or -1 and decrease very slowly. There is a direct link between the two variables (consumption / per capita and GDP / per capita), and the link's type is linear; such facts are also shown by the graphical representation of the data cloud.

On the other hand, Q-static and its associated probability represent a statistical test which has as null hypothesis that fact that there is no autocorrelation up to lag k . In case the probability associated with Q-static test is higher than the relevance level, the

null hypothesis is rejected and alternative hypothesis is accepted - there is autocorrelation up to lag k . As, in our case, the probabilities for the data series are higher than the relevance level in case of a large number of lags, one can state that the data for these lags are auto-correlated. The rest are uncorrelated.

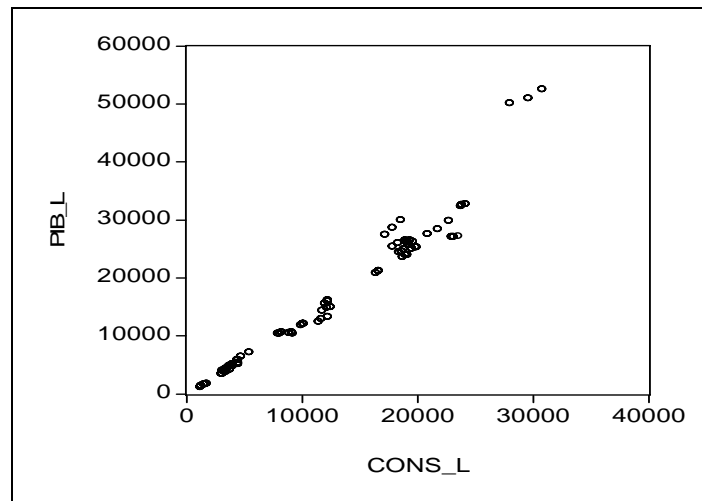


Figure 4. Graphical representation of the data cloud for the two variables

After the descriptive analysis of the data series, we are going to really solve the econometric model given by relation (1). In order to determine the two parameters, we shall employ the method of the smallest squares and the following command in Eviews: `ls cons_l c pib_l`

The values of the parameters a and b determined according to the method of the smallest squares employing Eviews program are displayed by Figure no. 5. It shows that the regression line given by relation (1) can be written as follows:

$$C_t = 1534.074 + 0.651977 \cdot GDP_t \quad (2)$$

For each independent and constant variable, Eviews reports the standard error of the coefficient (Std. Error), the t-Statistic test, and the probability associated with it. Assuming that the relevance level represents 5% and, as known, the probabilities of the t-Statistic test are below this level, the coefficients are considered statistically significant.

Eviews also reports R^2 value (R-Squared) that shows the percentage of the total variance of the dependent variable which is due to the independent variable. This coefficient displays values ranging between 0 and 1; the more its value is closer to 1, the best specified its regression. As R^2 in our case represents 0.955078, therefore the above condition is met.

Another given coefficient is the Durbin-Watson one which tests the serial correlation of the errors. In case the errors are not correlated, then the DW value is about 2. Due to the fact that this coefficient represents 1.466252, one can state that

there is a serial correlation of the errors or, in other words, errors are auto-correlated and the model should be improved. The above representations help us conclude the following:

- There is a significant positive linear dependence between GDP per capita and consumption per capita (regression curve is positive and significantly departs from zero)
- The relation $t_2 = F$ is checked up between the statistic value of F and t, which corresponds to the regression curve)
- $\alpha = 0.0000$, indicates that hypothesis H0 (according to which the model is not correctly specified) is going to be rejected, the model being a correct one;
- 0.955078% of the variant of consumption series is explained by the estimated regression model.

Table 2. Eviews window and the determining of the parameters' values of the mathematical model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1534.074	329.9902	4.648847	0.0000
PIB_L	0.651977	0.015908	40.98318	0.0000
R-squared	0.955078	Mean dependent var		12563.93
Adjusted R-squared	0.954510	S.D. dependent var		8057.552
S.E. of regression	1718.549	Akaike info criterion		17.76073
Sum squared resid	2.33E+08	Schwarz criterion		17.81985
Log likelihood	-717.3096	F-statistic		1679.621
Durbin-Watson stat	1.466252	Prob(F-statistic)		0.000000

In order to validate the model, we are going to check up the hypotheses of the model of linear regression.

3. THE CHECKING UP OF THE HYPOTHESES OF THE LINEAR REGRESSION MODEL

The testing of the validity of hypotheses drawn out within the linear regression model is similar with the analysis of autocorrelation, hetero-skedasticity, and normality.

3.1. Errors' mean is null

In order to test this hypothesis we are going to draw out the histogram of errors, emphasizing errors' average as well as the fact that errors follow a normal distribution $N(0, \sigma^2)$, similar to Gauss's bell.

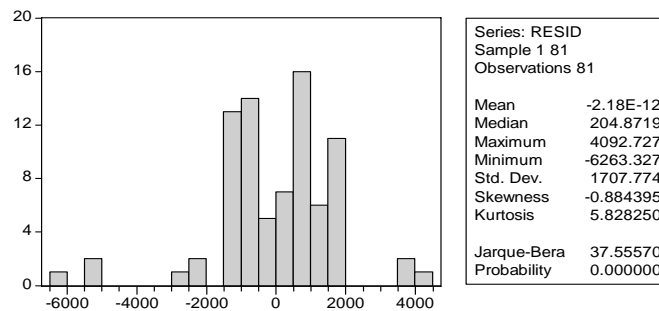


Figure 5. Errors' histogram

Errors' histogram shows that the mean represents 2.18×10^{-12} , which means that errors are normally distributed, normality is checked up, so that the errors' mean is approximately zero.

3.2. The series of errors is homo-skedastic

The corel-gram of quadratic errors shows that errors are hetero-skedastic due to the fact that quadratic errors are auto-correlated, except for lag 27.

After applying White test, one can notice the below results:

Table 3. The checking up of homo-skedasticity hypothesis

F-statistic	114.9587	Probability	0.000000	
Obs*R-squared	60.48151	Probability	0.000000	
Test Equation:				
Dependent Variable: RESID ²				
Method: Least Squares				
Date: 01/14/10 Time: 17:56				
Sample: 1 81				
Included observations: 81				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3008193.	823071.5	3.654839	0.0005
PIB_L	-514.5601	85.32253	-6.030764	0.0000
PIB_L ²	0.019935	0.001891	10.54417	0.0000
R-squared	0.746685	Mean dependent var	2880487.	
Adjusted R-squared	0.740190	S.D. dependent var	6368811.	
S.E. of regression	3246282.	Akaike info criterion	32.86025	
Sum squared resid	8.22E+14	Schwarz criterion	32.94894	
Log likelihood	-1327.840	F-statistic	114.9587	
Durbin-Watson stat	1.950507	Prob(F-statistic)	0.00000	

White test is a statistic test which is based on the following regression model:

$$r_t^2 = a + b \cdot GDP_L_t + c \cdot GDP_L_t^2 \tag{3}$$

After running the EViews program, parameters are estimated using ordinary least squares (OLS):

$$r^2 = 3008193 - 514.5601 \cdot GDP_L + 0.019935 \cdot GDP_L^2 \tag{4}$$

The test of T significance for each coefficient (p-value represents maximum 0.0005 only in case of the free term, in case of the rest terms, it is 0), as well as F test (indicating that 0.00 error occurs in case we reject the null hypothesis, so that we should accept that all coefficients are different from 0), shows that homo-skedasticity is violated and hetero-skedasticity is present, recommending the use of other methods in order to estimate the parameters.

3.3. Non-auto-correlation of errors

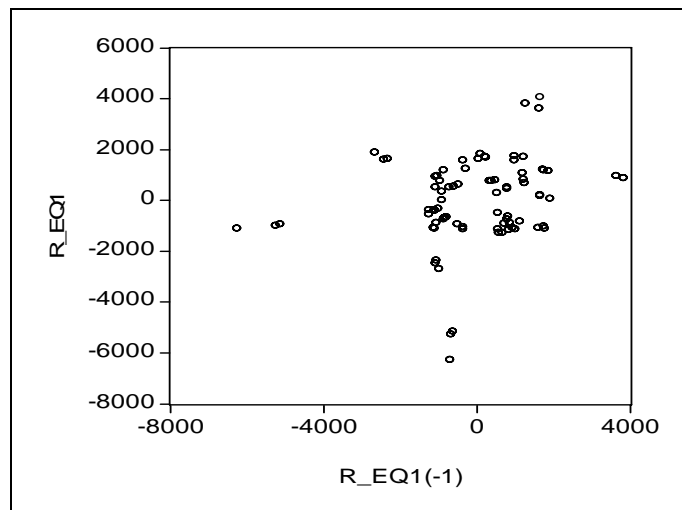


Figure 6. Graphical representation of errors' correlation

The above graphic of the correlation between residues and delayed residues does not show whether the correlation is evident; this is the reason of performing the Durbin-Watson test (as the terms of its implementation are carried out), estimating ρ in the model $e_t = \rho e_{t-1} + v_t$.

After performing this test one may notice the following: the coefficient of auto-correlation is small (0.247), probability p is small (0.032), Durbin-Watson statistics represents 1.51 (which shoes that order I auto-correlation is positive, DW belonging to the interval $[0, d_L]$, where $d_L=1.61$, $d_U=1.66$ in the table).

Accordingly, auto-correlation hypothesis is not carried out, and the model should be improved

Table 4. Checking up of the hypothesis of errors' auto-correlation

Variable	Coefficient	Std. Error	t-Statistic	Prob.
R_EQ1(-1)	0.247263	0.113240	2.183525	0.0320
R-squared	0.056882	Mean dependent var		-10.34110
Adjusted R-squared	0.056882	S.D. dependent var		1715.995
S.E. of regression	1666.476	Akaike info criterion		17.68723
Sum squared resid	2.19E+08	Schwarz criterion		17.71701
Log likelihood	-706.4893	Durbin-Watson stat		1.838881

As the implementation of DW test determines poor results, we have performed the Breusch-Godfrey Serial Correlation LM test to confirm them (its returning R2 value of 0.086090 being higher than 0.8):

F-statistic	3.626694	Probability	0.031245
Obs*R-squared	6.973303	Probability	0.030603

Test Equation:

Dependent Variable: RESID

Method: Least Squares

Date: 01/16/10 Time: 18:40

Presample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	119.5568	322.7445	0.370438	0.7121
PIB_L	-0.006964	0.015658	-0.444769	0.6577
RESID(-1)	0.291912	0.116831	2.498573	0.0146
RESID(-2)	-0.183765	0.118046	-1.556722	0.1236

3.4. The data series for these features are not stochastic

Due to the fact that $\text{cov}(x, \varepsilon) = -2.37 \cdot 10^{-8}$, as it is shown by the matrix of covariant between the error vector and the data vector that shows the GDP, one can state that this hypothesis is carried out.

	RESID	PIB_L
RESID	1.44E+08	-2.37E-08
PIB_L	-2.37E-08	2880487.

3.5. Errors' normality

Errors' normality is displayed by errors' histogram which shows that we deal with a normal probability density (Gauss's bell); the fact asserts that this hypothesis is checked up. On the other hand, skewness is close to 0 and kurtosis is close to 3, so that there is no error to reject the null hypothesis (of normal distribution $p = 0$).

The above five hypotheses determine us to conclude that the linear regression model should be improved so that it obeys the hypotheses of a simple linear regression model as the admittance of this model might determine errors as follows:

- Over-evaluation of the determination report;
- Inefficient indices of estimations;
- Erroneous results after implementing the t-Student test that show an increased significance of indices.

According to the above facts, we suggest a model equivalent in the meaning of interpretation and in certain items of elasticity:

$$\ln(\text{CONS_L})_{ij} = b + a \cdot \ln(\text{PIB_L})_{ij} + \varepsilon_{ij} \quad (5)$$

The estimating of the parameters owing to OLS determines the following relation:

$$\ln(\text{CONS_L})_{ij} = 0.337 + 0.936 \cdot \ln(\text{PIB_L})_{ij} \quad (6)$$

This econometric model is better than the previous one due to the following reasons:

- The auto-correlation hypothesis is carried out; accordingly, p statistics = 0.02, the probability of carrying out the null hypothesis representing 0.84%, and the Durbin-Watson statistics ranging within the interval recommending that the hereby auto-correlation is not confirmed ($DW \in [d_L, 4-d_U]$)
- The hypothesis of the autocorrelation is fulfilled, statistics $\rho = -0.02$, the probability by the null hypothesis being 0.84%, the Durbin-Watson statistic $DW \in [d_L, 4-d_U]$, shows no autocorrelation
- The hypothesis of the homo-skedasticity is not carried out, the probability of attaining the null hypothesis representing maximum 0.04.

Another econometric model that shows even better results has the following shape:

$$\ln(\text{CONS_L})_{ij} = a_1 + a_2 \cdot \ln(\text{PIB_L})_{ij} + a_3 \cdot \ln(\text{PIB_L})_{ij-1} + a_4 \cdot \ln(\text{CONS_L})_{ij-1} + \varepsilon_{ij}, \quad (7)$$

The estimating of the parameters owing to OLS determines the following relation:

$$\begin{aligned} \ln(\text{CONS_L})_{ij} = & 0.002 + 0.938 \cdot \ln(\text{PIB_L})_{ij} + \\ & + 0.047 \cdot \ln(\text{PIB_L})_{ij-1} - 0.014 \cdot \ln(\text{CONS_L})_{ij-1}, \end{aligned} \quad (8)$$

This econometric model is better than the previous one due to the following reasons:

- Errors follow a normal distribution: mean 0 and repartition σ^2
- The auto-correlation hypothesis is carried out so that the probability of the null hypothesis representing 0.3473%, and the Durbin-Watson statistics ranging within the interval that recommends that the hereby auto-correlation is not confirmed ($DW \in [d_L, 4-d_U] = 2.20$; Brush-Gefrey test (more recommended under theses circumstances, due to its delayed values) has higher probability of carrying out the null hypothesis due to the free term and $\ln(\text{PIB_L})$)

- The homo-skedasticity hypothesis is attained, the White test, having $p = 0.55$ in case of the free term and 0.16 in case of $\ln(\text{PIB_L})$.

4. MAKING PREDICTIONS

We are going to make predictions for the previously displayed model. The predictions are going to be made for the years 2003 and 2004. Subsequently, according to the regression line shown above, in case of a GDP representing 1150.277 Euro per capita in 2003 Romania, and according to the regression model, one gets a consumption expressed in a natural logarithm of 6.851484, with a real value of 7.047758 (which represents the equivalent of 1006.492 Euro per capita). The analysis of the model shows that in case of certain states belonging to the EU the errors are smaller.

5. CONCLUSIONS

The analysis contained by paragraph 8 demonstrates that it is more useful to approach the dependency in terms of elasticity considering the diversity of employed data (EU countries with different levels of development). The above model shows that the change of consumption in case of a unit increase of the income is going to alter in proportion of 93.8 % due to the change of the PIB_LOC of the current year, in proportion of 4.7% as a result of the PIB_LOC changes of the previous year, and is negatively influenced by the evolution of the previous year consumption.

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ALGORITHMS FOR THE PROCESSES OF ESTABLISHING PRICES AND BALANCED BANK INTERESTS

CARINA-ELENA STEGĂROIU, VALENTIN STEGĂROIU *

ABSTRACT: *The paper proposed economic and mathematical models of processes for sale, purchase of resources, including financial ones, are analyzed (in mathematical language) economic indicators, financial industries preferred income, financial resources at the end of production are analyzed cases possible deployment of productive processes with and without recourse to bank loans, are useful to constructive conclusions national economy branches, including National Bank.*

KEY WORD: *market economy; banking interest; cost of resources; economic system*

JEL CLASSIFICATION: *E43*

1. INTRODUCTION

In market economy conditions unless monopolists, monopsony-ists, under perfect competition equilibrium prices are set by the "intersection" of APPLICATION and OFFER (Mankiw, 2008). Quality and quantity of resources involved in the productive sphere, under the impact of technological and scientific progress is evolving. Here in productive processes, and banks involved, which can significantly influence APPLICATION? Prices in the national economy can not achieve an equilibrium level under the banks agreed to continue to increase (or reduce) interest bank and vice versa.

2. NEED DETERMINING OPTIMAL VARIANT OF THE ECONOMIC POTENTIAL

Economic system can achieve balance and price level of resources involved in productive processes and bank interest. But this, at the discretion of supply and

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demand, has several variants-solutions. Of the many variants it is necessary to determine pricing option to resources of interest to the economic potential will be maximized. Pricing process analysis, banking interest equilibrium can be simulated using a mathematical economic model (Keynes, 2006, pp.231-282). To this end assume that the system is composed of m economic subjects $1,2,\dots,i,\dots,m$, each of which has the resources $1,2,\dots,j,\dots,n$: the volume of $x_i = (x_{i1}, x_{i2}, \dots, x_{ij}, \dots, x_{in})$, Φ_i , $i = 1,2,\dots,m$ own financial resources, which do not exceed the available resources summary financial-banking Φ .

If the economic subject i , $i = 1,2,\dots,m$, $\Phi_i^{(1)}$ takes loans from banks, then it has returned to the bank $(1 + \alpha)\Phi_i^{(1)}$ monetary units, where $\alpha > 0$ - bank interest, whether financial resources are made by the subject at the bank, then $\alpha < 0$. Each participant in the process of sharing resources is able to procure resources at the expense of their own financial resources in the amount of $x_i^{(1)} = (x_{i1}^{(1)}, x_{i2}^{(1)}, \dots, x_{ij}^{(1)}, \dots, x_{in}^{(1)})$, $i = 1,2,\dots,m$. Exchange of resources between economic subjects of economic processes required for production needs. Resource requirements is represented by the vector $x_i^{(2)} = (x_{i1}^{(2)}, x_{i2}^{(2)}, \dots, x_{ij}^{(2)}, \dots, x_{in}^{(2)})$.

Resources to be purchased at prices $P = (P_1, P_2, \dots, P_j, \dots, P_n)$ are determined by the balance

$$(x_i^{(2)} - x_i) = ((x_{i1}^{(2)} - x_{i1}), (x_{i2}^{(2)} - x_{i2}), \dots, (x_{ij}^{(2)} - x_{ij}), \dots, (x_{in}^{(2)} - x_{in}))$$

3. COST OF TRADE RESOURCES

In these circumstances the cost borne trade in resources each topic depends on the cost of resources (the vector P), the balance between resource availability and needs (the vector $(x_i^{(2)} - x_i)$), the amount of resources that can be purchased by each subject from their own (the vector $x_i^{(1)}$) can be expressed by the function $K_i(P, (x_i^{(2)} - x_i), x_i^{(1)})$. Economic subjects, using the banking, financial resources have $\Phi_i + \Phi_i^{(1)}$.

The costs of trade must not exceed the available resources of finance, namely

$$K_i(P, (x_i^{(2)} - x_i), x_i^{(1)}) \leq \Phi_i + \Phi_i^{(1)}, \quad i = 1,2,\dots,m;$$

algebraic sum of loans by the bank should not exceed the available financial resources bank, namely

$$\sum_{i=1}^m \Phi_i^{(1)} \leq \Phi.$$

Resource cost trade consists of costs of business operations, performed with and without bank loans. Denote by $K_i^{(1)}, K_i^{(2)}$ trade costs that resources under their own financial resources, based on bank loans, namely, $K_i = K_i^{(1)} + K_i^{(2)}$ where

$$K_i^{(2)} = (P_1, P_2, \dots, P_j, \dots, P_n) \begin{pmatrix} x_{i1}^{(1)} \\ x_{i2}^{(1)} \\ \vdots \\ x_{ij}^{(1)} \\ \vdots \\ x_{in}^{(1)} \end{pmatrix} = (P, x_i^{(1)}) = \sum_{j=1}^n P_j x_{ij}^{(1)}$$

$$K_i^{(1)} = (P_1^{(1)}, P_2^{(1)}, \dots, P_j^{(1)}, \dots, P_n^{(1)}) \begin{pmatrix} (x_{i1}^{(2)} - x_{i1}) \\ (x_{i2}^{(2)} - x_{i2}) \\ \vdots \\ (x_{ij}^{(2)} - x_{ij}) \\ \vdots \\ (x_{in}^{(2)} - x_{in}) \end{pmatrix} = (P^{(1)}, (x_i^{(2)} - x_i)) = \sum_{j=1}^n P_j^{(1)} (x_{ij}^{(2)} - x_{ij})$$

The total costs of each topic is

$$K_i = \sum_{j=1}^n P_j x_{ij}^{(1)} + \sum_{j=1}^n P_j^{(1)} (x_{ij}^{(2)} - x_{ij}), \quad i = 1, 2, \dots, m$$

The costs listed above are related to redistribution of resources between economic subjects for the operation scope and production costs of productive processes. Subject economically i , $i = 1, 2, \dots, m$, with its resources $x_i^{(2)}$ and $x_i^{(1)}$ supports production costs $K_i^{(3)}(x_i^{(2)}, x_i^{(1)})$. Economic subject participating in the redistribution of resources, if he fails to recover all costs: banking, trade, production, or if

$$\underbrace{K_i^{(3)}(x_i^{(2)}, x_i^{(1)}) + \sum_{j=1}^n P_j^{(1)} (x_{ij}^{(2)} - x_{ij})}_{\text{Costs, if the economic subject participating in the processes of redistribution and production, using its own resources and bank.}} + \underbrace{\alpha \Phi_i^{(1)}}_{\text{The subject does not participate in the economic redistribution of resources, does not use credit, not procure resources of their own.}} \leq K_i^{(3)}(x_i, 0)$$

Costs, if the economic subject participating in the processes of redistribution and production, using its own resources and bank.

The subject does not participate in the economic redistribution of resources, does not use credit, not procure resources of their own.

4. PROCESS MODELING OF ESTABLISHMENT PRICING

Every economic subject by minimizing total costs involved determining in prices, banking interest equilibrium. Subject i , $i = 1, 2, \dots, m$, do not solve the problem which could cause the minimum function:

$$K_i^{(3)}(x_i^{(2)}, x_i^{(1)}) + \sum_{j=1}^n P_j^{(1)}(x_{ij}^{(2)} - x_{ij}) + \alpha \Phi_i^{(1)} \quad (1)$$

with

$$K_i(P, (x_i^{(2)} - x_i), x_i^{(1)}) \leq \Phi_i + \Phi_i^{(1)}, \quad i = 1, 2, \dots, m \quad (2)$$

$$x_i^{(2)} \geq 0, \quad i = 1, 2, \dots, m \quad (3)$$

$$x_i^{(1)} \geq 0, \quad i = 1, 2, \dots, m \quad (4)$$

$$\sum_{i=1}^m x_i^{(2)} = \sum_{i=1}^m x_i \quad (5)$$

$$\sum_{i=1}^m \Phi_i^{(1)} \leq \Phi \quad (6)$$

Resource prices, loans are set by economic subjects, unjustified increase interest bank contribute to a significant reduction of productive activities of economic subjects. Low bank interest but contribute to the productive activities and reduce potential bank to grant loans, higher interest rates help increase bank potential, but also reduce productive activities. So there are optimal banking interest in earning both parties and economic subjects, and the bank.

Analysis of pricing, interest balance may be made on a system to imitate the functioning of the national economy (de la Fuente, 2000, pp.379-384). Starting from a range of bank interest rate change can be simulated variants can be determined the optimal bank interest.

Economic and mathematical model (1) - (6) may have a number of interpretations, applications can be generalized, can be found and models of processes for particular cases. In determining the equilibrium price of money can also be taken into account and social insurance funds, private (Stegăroiu & Țău, 2008). Typically, algorithms economic processes contribute to the calculations (Toader, 2008, pp.96-98). When examined algorithms are assigned to the concepts.

Let us examine a case of the processes determining the optimal amount of bank interest. To this end, assume that the national economy consists of m branches.

Branch i , $i = 1, 2, \dots, m$, has:

- funds production Φ_i ;
- including funding of productive performance $\bar{\Phi}_i$;

- operational support costs per unit of fund performance \bar{C}_i ;
- bad production funds C_i ;
- operation cost fund performance $\bar{C}_i \bar{\Phi}_i$;
- cost of funds underperforming operation $C_i(\Phi_i - \bar{\Phi}_i)$ (Table 2).

Costs of production in industry funding of i , $i=1,2,\dots,m$, are depending on the structure of funds by level of economic performance. Namely

$$f_i(\Phi_i) = \begin{cases} \bar{C}_i \bar{\Phi}_1 + C_i(\Phi_i - \bar{\Phi}_i), & \text{if the national economy operating funds} \\ & \text{and funds bad performance} \\ \bar{C}_i \bar{\Phi}_i, & \text{if all funds are performing productive national} \\ & \text{economy} \end{cases}$$

Productive funds underperforming operation is more expensive compared to similar costs of production funds performance, namely

$$C_i > \bar{C}_i, \quad i=1,2,\dots,m$$

Table 2. Economic indicators in the profile branches

Branches of national economy	1	2	...	i	...	m
Economic indicators						
Productive funds	Φ_1	Φ_2	...	Φ_i	...	Φ_m
Including funding of productive performance	$\bar{\Phi}_1$	$\bar{\Phi}_2$	...	$\bar{\Phi}_i$	...	$\bar{\Phi}_m$
Operating costs per unit of productive funds performance	\bar{C}_1	\bar{C}_2	...	\bar{C}_i	...	\bar{C}_m
Operating costs per unit of production funds underperforming	C_1	C_2	...	C_i	...	C_m
Cost of operation of productive funds performance	$\bar{C}_1 \bar{\Phi}_1$	$\bar{C}_2 \bar{\Phi}_2$	...	$\bar{C}_i \bar{\Phi}_i$	...	$\bar{C}_m \bar{\Phi}_m$
Bad productive operation cost funds	$C_1(\Phi_1 - \bar{\Phi}_1)$	$C_2(\Phi_2 - \bar{\Phi}_2)$	...	$C_i(\Phi_i - \bar{\Phi}_i)$	...	$C_m(\Phi_m - \bar{\Phi}_m)$

Source: Elaborated by the authors.

Financial indicators, in profile national economy branches, determine their operation restrictions (Helfert, 2001, pp.13-14). For branch i , $i=1,2,\dots,m$ noted: M_i - needs financial resources, \bar{M}_i - the available branch i of funding.

In these cases, industries need financial resources lending volume $(M_i - \bar{M}_i)$ the costs of bank loans will increase by $\alpha_i(M_i - \bar{M}_i)$, by borrowing from other economic subjects - $\beta_i(M_i - \bar{M}_i)$. Branch i , $i=1,2,\dots,m$ financial resources have \hat{M}_i (Table 3).

Table 3. Financial indicators in profile branches

Branches of national economy	1	2	...	i	...	m
Economic indicators						
Financial resource requirements	M_1	M_2	...	M_i	...	M_m
Availability of financial resources	\bar{M}_1	\bar{M}_2	...	\bar{M}_i	...	\bar{M}_m
Loan resource finance	$M_1 - \bar{M}_1$	$M_2 - \bar{M}_2$	...	$M_i - \bar{M}_i$	...	$M_m - \bar{M}_m$
Costs related to bank loans	$\alpha_1(M_1 - \bar{M}_1)$	$\alpha_2(M_2 - \bar{M}_2)$	...	$\alpha_i(M_i - \bar{M}_i)$	...	$\alpha_m(M_m - \bar{M}_m)$
Costs of borrowing from other economic subjects	$\beta_1(M_1 - \bar{M}_1)$	$\beta_2(M_2 - \bar{M}_2)$	...	$\beta_i(M_i - \bar{M}_i)$	...	$\beta_m(M_m - \bar{M}_m)$
Availability of financial resources	\hat{M}_1	\hat{M}_2	...	\hat{M}_i	...	\hat{M}_m

Source: Elaborated by the authors.

Total costs, consisting of the operating costs of production funds ($f_i(\Phi_i)$) and bank borrowing costs from other economic subjects, must not exceed the available financial resources (\hat{M}_i) , namely

$$f_i(\Phi_i) + \alpha_i(M_i - \bar{M}_i) + \beta_i(M_i - \bar{M}_i) \leq \hat{M}_i, \quad i = 1, 2, \dots, m$$

Prices of final products by made a unit of production funds is a likely size. Depending on a number of factors have a certain product prices change. Mathematical expectation of the price noted by W_i , $i = 1, 2, \dots, m$.

Financial resources used to operate production processes ensure a final product volume growth. Return per unit of financial resources V_i end products. Products made of financial resources is $M_i V_i$; income based on financial resources - $M_i V_i W_i$; income earned in the operation of productive funds are $\Phi_i W_i$. Each branch is natural they ensure maximum revenue by minimizing costs. Preferred income by industry i , $i = 1, 2, \dots, m$ will be $W_i \cdot \min\{M_i, V_i, \Phi\}$ (Table 4).

Table 4. Preferred income profile branches

Branches of national economy	1	2	...	i	...	m
Preferred income profile branches						
Mathematics hope the price of final products made of a productive unit funds	W_1	W_2	...	W_i	...	W_m
Produced per unit of financial resources	V_1	V_2	...	V_i	...	V_m
Products made of financial resources	$M_1 V_1$	$M_2 V_2$	...	$M_i V_i$	...	$M_m V_m$
Income based on financial resources	$M_1 V_1 W_1$	$M_2 V_2 W_2$	...	$M_i V_i W_i$	...	$M_m V_m W_m$
Income funds in the productive	$\Phi_1 W_1$	$\Phi_2 W_2$	...	$\Phi_i W_i$	...	$\Phi_m W_m$
Preferred income $W_i \cdot \min\{M_i, V_i, \Phi_i\}$	$W_1 \cdot \min\{M_1, V_1, \Phi_1\}$	$W_2 \cdot \min\{M_2, V_2, \Phi_2\}$	...	$W_i \cdot \min\{M_i, V_i, \Phi_i\}$	...	$W_m \cdot \min\{M_m, V_m, \Phi_m\}$

Source: Elaborated by the authors

After the production cycle branch will provide financial resources in volume $\hat{M}_i - f_i(\Phi_i) - \alpha_i(M_i - \bar{M}_i) - \beta_i(M_i - \bar{M}_i)$.

At the end production branch i , $i = 1, 2, \dots, m$, will provide financial resources amounting to:

$$W_i \cdot \min\{M_i, V_i, \Phi_i\} + \left[\hat{M}_i - f_i(\Phi_i) - \alpha_i(M_i - \bar{M}_i) - \beta_i(M_i - \bar{M}_i) \right] \text{ (Table 5).}$$

If after the granting of credit, bank loans remained unsolicited M_0 unsolicited financial resources, then banking revenues are:

$$-k_0 M_0 - k_1(\bar{M}_0 - M_0) + \beta(\bar{M}_0 - M_0), \quad 0 \leq M_0 \leq \bar{M}_0,$$

where: \bar{M}_0 - Availability of bank credit;

k_0 - Specific gain (per unit) missed by the bank;

k_1 - Specific costs related to banking operations.

Flows of financial resources will be balanced, so if a price (B), for which each economic subject of this process that can maximize the income provided:

$$\sum_{i=0}^m M_i = \sum_{i=0}^m \bar{M}_i$$

Note: model is not closed, as it admitted financial resources and other extra bank loans, the criteria for optimization may be other economic indicators, income may have the most diverse branches of growth forms: small, slow, increased.

Table 5. Financial resources to end period

Branches of national economy	1	2	...	i	...	M
Algebraic sum of financial resources to end period	$W_1 \cdot \min \{M_1, V_1, \Phi_1\} + \left[\hat{M}_1 - f_1(\Phi_1) - \alpha_1 \right] (M_1 - \bar{M}_1) - \beta_1 (M_1 - \bar{M}_1)$	$W_2 \cdot \min \{M_2, V_2, \Phi_2\} + \left[\hat{M}_2 - f_2(\Phi_2) - \alpha_2 \right] (M_2 - \bar{M}_2) - \beta_2 (M_2 - \bar{M}_2)$	...	$W_i \cdot \min \{M_i, V_i, \Phi_i\} + \left[\hat{M}_i - f_i(\Phi_i) - \alpha_i \right] (M_i - \bar{M}_i) - \beta_i (M_i - \bar{M}_i)$	...	$W_m \cdot \min \{M_m, V_m, \Phi_m\} + \left[\hat{M}_m - f_m(\Phi_m) - \alpha_m \right] (M_m - \bar{M}_m) - \beta_m (M_m - \bar{M}_m)$
Expressions $(M_i - \bar{M}_i)$	$M_1 - \bar{M}_1 \geq 0$	$M_2 - \bar{M}_2 \geq 0$	...	$M_i - \bar{M}_i \geq 0$	...	$M_m - \bar{M}_m \geq 0$

Source: Elaborated by the authors

5. CONCLUSION

Supply and demand of resources, including finances, determines equilibrium price and resources, and money. But establishing equilibrium processes take place in a long time may create problems of all kinds, makes the economic potential of national economies. Banking interest, arbitrarily set significantly affects the structure of productive funds, and not a change in a positive direction.

Hence, equilibrium prices need to be /projected on a basis of economic-mathematical simulation of resource exchange, the buying and selling of money. National Bank must have a scientific and practical potential to make profound scientific research, to know the best selling price, the purchase of financial resources for each economic situation can be created.

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THE ECONOMETRIC ANALYSIS OF THE DEPENDENCE BETWEEN THE CONSUMER, GDP AND THE INTEREST RATE USING THE EVIEWS PROGRAM

**NADIA ELENA STOICUȚA,
ANA PETRINA STANCIU ***

ABSTRACT: *In this paper is performed an econometric analysis of the dependence between of consumption, GDP and interest rates of 15 European Union countries over a period of three years. The main purpose of this paper is to show how this can be done using the Eviews program, the steps that we must go through this program and to forecast achievements of the phenomenon studied.*

KEY WORDS: *Gross Domestic Product (GDP); Method of Least Squares (MLS); Ordinary Least Squares (OLS); Eviews Program*

JEL CLASSIFICATION: *C24, E20, E43*

1. INTRODUCTION

The subject refers to the dependency analysis at European level between the consumption per capita, GDP per capita and the interest rate, from the Keynesian theory of consumption function, interpreted as a linear dependence between private consumption and disposable income. Theoretically, this dependence is positive and can be measured by the marginal propensity to consumption which shows how much of each additional monetary unit perquisite will be spent on consumption. Typically, the economies of developed countries are characterized by lower values of BMI.

For this econometric analysis were used as data sources 15 Member States of the European Union for a period of three years and has as endogenous variable the consumption per capita and as exogenous variables the GDP and interest rate.

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The measuring unit used for all the data is Euro per capita made at current prices. For this reason, data have been restated with the Consumer Price Index to provide comparable prices in 2000 and to ensure comparability of data. The data to be processed are given in Table 1.

Table 1. The data to be processed

	2000			2001		
	GDP / CAPITA	CONSUM/ CAPITA	INTR./ RATE	GPD / CAPITA	CONSUM/ CAPITA	INTR./ RATE
Bulgaria	1700,00	1500,00	0,00	1780,69	1593,25	0,00
Czech Republic	6000,00	4400,00	7,50	6482,36	4671,12	5,75
Denmark	32500,00	23700,00	5,40	32682,93	23804,88	3,60
Estonia	4500,00	3400,00	0,00	4843,30	3608,74	0,00
Cyprus	14500,00	11700,00	7,00	14893,62	12088,97	5,50
Latvia	3600,00	3000,00	5,50	3933,14	3244,84	5,50
Lithuania	3500,00	3100,00	10,38	3915,66	3413,65	5,50
Hungary	5000,00	3700,00	13,75	5272,73	4000,00	11,25
Malta	10800,00	9100,00	5,30	10551,79	9196,52	4,80
Poland	4900,00	4000,00	23,00	5410,63	4444,44	15,50
Romania	1800,00	1600,00	35,00	1451,38	1233,67	35,00
Slovenia	10800,00	8200,00	11,00	10487,58	8003,68	12,00
Slovakia	4100,00	3100,00	9,25	4190,48	3238,10	9,00
Sweden	30000,00	22700,00	4,75	27663,73	20821,11	4,50
United Kingdom	27200,00	22900,00	6,00	27228,21	23114,59	4,00
	2002					
	GDP / CAPITA	CONSUM/ CAPITA	INTEREST RATE			
Bulgaria	1885,19	1705,65	0,00			
Czech Republic	7233,13	5378,48	3,75			
Denmark	32806,43	24127,98	2,95			
Estonia	5240,18	3953,12	0,00			
Cyprus	15003,71	12423,45	5,00			
Latvia	3986,29	3321,91	5,00			
Lithuania	4308,65	3707,44	10,00			
Hungary	5897,72	4465,41	9,50			
Malta	10599,82	8817,55	4,30			
Poland	5199,62	4443,31	8,75			
Romania	1301,15	1123,72	20,40			
Slovenia	10506,54	7858,55	10,50			
Slovakia	4399,84	3483,20	8,00			
Sweden	28478,84	21743,98	4,50			
United Kingdom	27359,50	23464,57	4,00			

Data Source: Eurostat

Next is presented the mathematical model of these applications what's next to being solved using Eviews 7.0 software package.

2. THE MATHEMATICAL MODEL

In this econometric model the following notations are used for the variables that enter into its composition:

- C_t is the total consumption per capita;
- GDP_t is Gross Domestic Product per capita;
- $RATA_t$ is the interest rate.

Using the variables above, we define the following econometric model:

$$C_t = b + a \cdot GDP_t + c \cdot RATA_t + \varepsilon_t \quad (1)$$

where a, b and c are the parameters to be determined after applying the method of least squares.

Next we analyze descriptively the data sets used in this model.

Therefore, after processing the two data sets, we obtain information on the statistical indicators that are contained in the graphs below:

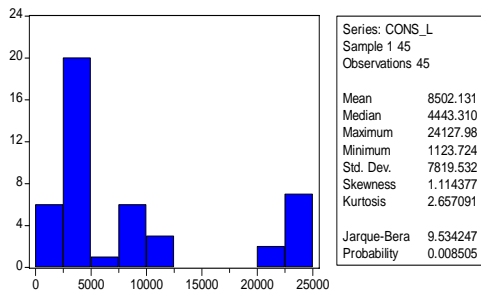


Figure 1. The descriptive statistics for Consumption per capita

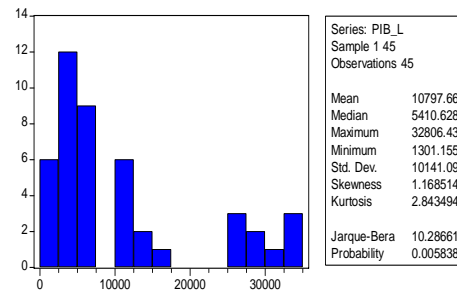


Figure 2. The descriptive statistics for GDP per capita

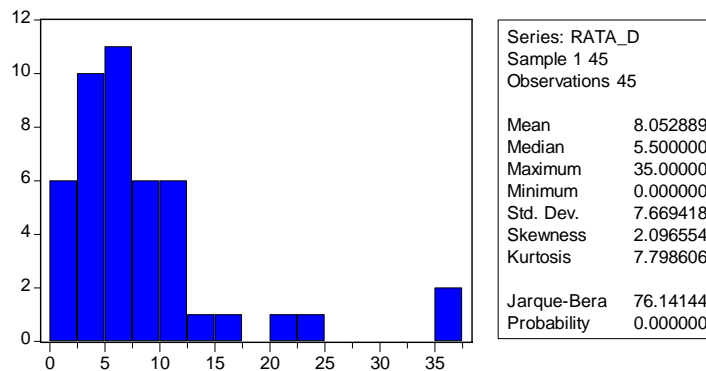


Figure 3. The descriptive statistics for the benchmark interest rate

To test the normal distribution of the three data sets, we present the histogram of the three series in which is observed the mean, median, minimum and maximum values, standard deviation, coefficient of asymmetry, kurtotica, and Jarque-Bera test.

In the histograms presented above, we see that the distributions of consumption, GDP and interest rates are platikurtotic (kurtotica < 3). In a leptokurtotic distribution, the probability of occurrence of an extreme event is higher than the probability of occurrence of that event, implied by a normal distribution. Therefore, the evaluation models can cause errors assuming a normal distribution of GDP. The Jarque-Bera coefficient, is testing if a distribution is normally distributed. The test measures the difference between the coefficient of asymmetry and the kurtotica of distribution analyzed with the normal distribution. The test has the null hypothesis: the series is normally distributed. Thus, if the probability associated to the test is superior to the relevant level (1%, 5% or 10%), then the null hypothesis is accepted. In the example above, as the probability value is less than 10%, we can say with certainty that the null hypothesis is rejected.

From the analysis of the corelograms it is seen that between the two variables (consumption and GDP) is a direct link and type of link is one linear, this can be seen in the graphic representation of the cloud data.

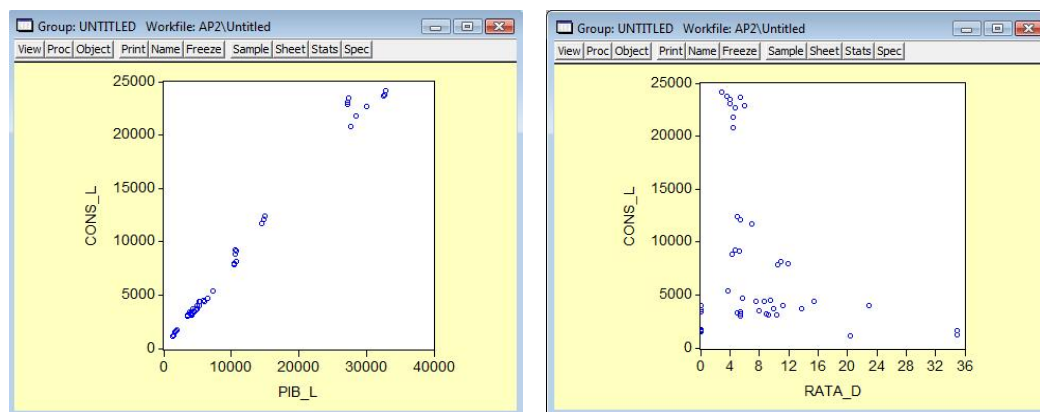


Figure 4. Graphical representation of the cloud data for the two variables

After descriptive analysis of data series, in what follows we will actually solve the econometric model given by (1). To determine those three parameters, we use the method of least squares and we use the following command in EViews: `ls cons_l c pib_l rata_d`.

The values of the parameters a , b and c are determined using the method of least squares using the Eviews, and are given in Figure 5. Within this, we see that the straight regression given by the equation (1) can be written as following:

$$C_t = 246.0538 + 0.767030 \cdot GDP_t - 3,234870 \cdot RATA_t \quad (2)$$

Also, for each independent and constant variable, EViews reports the standard error of the coefficient (Std. Error), the t-Statistic test and probability associated with it.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	246.0538	228.0509	1.078942	0.2868
PIB_L	0.767030	0.011538	66.47702	0.0000
RATA_D	-3.234870	15.25678	-0.212028	0.8331

R-squared	0.991448	Mean dependent var	8502.131
Adjusted R-squared	0.991041	S.D. dependent var	7819.532
S.E. of regression	740.1488	Akaike info criterion	16.11592
Sum squared resid	23008448	Schwarz criterion	16.23636
Log likelihood	-359.6082	F-statistic	2434.535
Durbin-Watson stat	1.792076	Prob(F-statistic)	0.000000

Figure 5. Eviews window to determine the parameter values of the mathematical model

Eviews, (also reports R^2 value) (R-Squared) that shows what percentage of the total variance of the dependent variable is due to the independent variable. This coefficient is taking values between 0 and 1 and if it's closer to 1, the regression is well determined. As in this case, R^2 has a value of 0.991448 therefore the above condition is satisfied.

For like the model to be valid, in the following we check the assumptions the model linear regression.

3. THE CHECKING OF THE ASSUMPTIONS OF THE MODEL OF LINEAR REGRESSION

Testing the validity of assumptions made in the linear regression model is similar to autocorrelation analysis, the normality and heteroskedasticity.

31. The average error is zero

To test this hypothesis we perform histogram of errors, highlighting the average of the errors. In the histogram of errors we notice that the average is $1,87 \cdot 10^{-12}$, which means that errors are normally distributed, ie normality is checked, so the Mean of the errors is approximately zero.

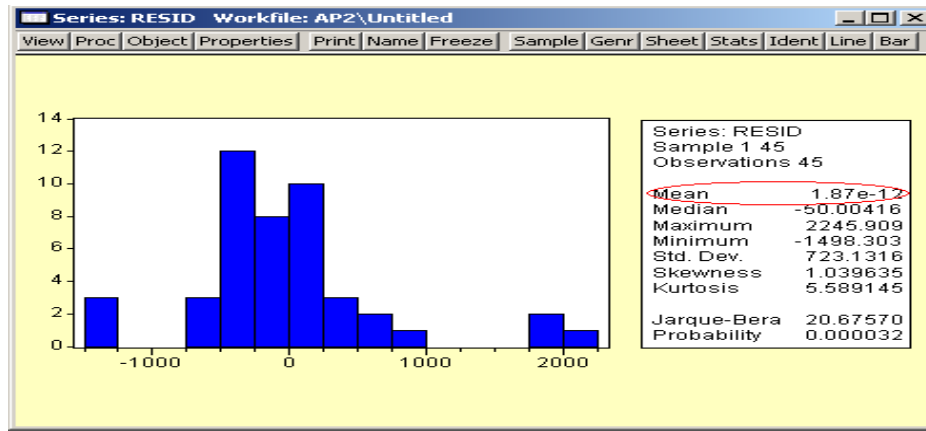


Figure 6. The histogram of the errors

3.2. The series of errors is homoscedastic

The verification of the homoscedastic errors hypothesis for this model will be done using White test. By using Eviews program the following results were obtained:

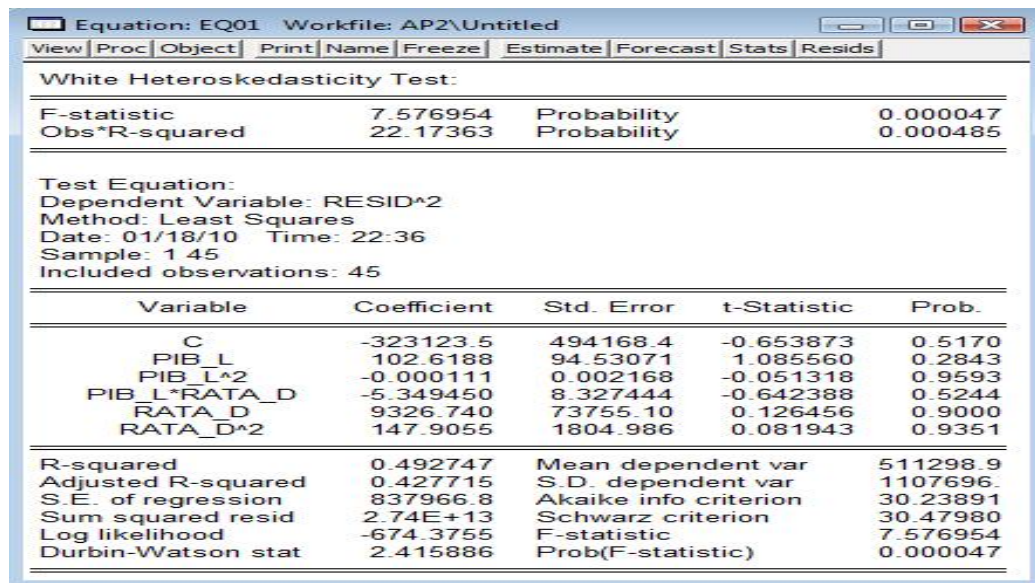


Figure 7. The check of the hypothesis of homoscedasticitate

The White test is a statistical test that is based on the following regression model:

$$r_t^2 = a_0 + a_1 \cdot GDP_L_t + a_2 \cdot GDP_L_t^2 + a_3 \cdot GDP_L_t \cdot RATA_D_t + a_4 \cdot RATA_D_t + a_5 \cdot RATA_D_t^2 \quad (3)$$

After running the EViews program, parameters are estimated using ordinary least squares (OLS):

$$r^2 = -323123,5 + 102,6188 \cdot GDP_L - 0.000111 \cdot GDP_L^2 - 5,349450 \cdot GDP_L \cdot RATA_D + 9326,740 \cdot RATA_D + 147,9055 \cdot RATA_D^2 \quad (4)$$

Analyzing the indicators F-Statistic and Obs*R_squared and comparing them with the tabulated values, results: $F_8=7,57 > F_{0,05;2;10} = 3,23$ and $LM = 22,17 > \chi^2_{0,005;2} = 5,99$ that indicates us the existence of heteroskedasticity, therefore we must use other methods for estimating the parameters.

3.3. Non-autocorrelation of the error

The verification of the hypothesis of independence of errors which implies that $cov(\varepsilon_t, \varepsilon_{t-1})=0$, is performed using the Durbin-Watson test, consisting of calculating the variable d and comparing it with two theoretical values d_1 and d_2 , from the Durbin Watson distribution table, according to a significance threshold α ($\alpha = 0.05$), the number of explanatory variables k ($k = 2$) and the number of observations n ($n \geq 45$).

Observation: the Durbin-Watson table is built for a number of $n \geq 45$ observations; for the lower values will work with the calculated values for $n = 45$, ie $d_1 = 1,430$ and $d_2 = 1,615$. Because the calculated value $d = 1,792076$ ranges between the $d_2 < d < 4 - d_2 = 2,385$ results a nonexistent autocorrelation of errors.

3.4. Data series for these features are not stochastic

Covariance Matrix			
	RESID	PIB_L	RATA_D
RESID	49785253	1.45E-09	1.42E-11
PIB_L	1.45E-09	1.04E+08	20686.19
RATA_D	1.42E-11	20686.19	62.25307

Figure 8. The Eviews window presenting the covariance matrix

To do this we must show that the variables pib_l and $rata_d$, are uncorrelated in other words $cov(pib_l, resid)=0$ și $cov(rata_d, resid)=0$. To do this we calculate the covariance matrix and read the values on the secondary diagonal. We note that the values $1.45 \cdot 10^{-9}$ și $1.42 \cdot 10^{-11}$ are approximative 0.

3.5. The explanatory variables are not correlated with residual variables

To test this hypothesis, the following two corelogrames must be created:

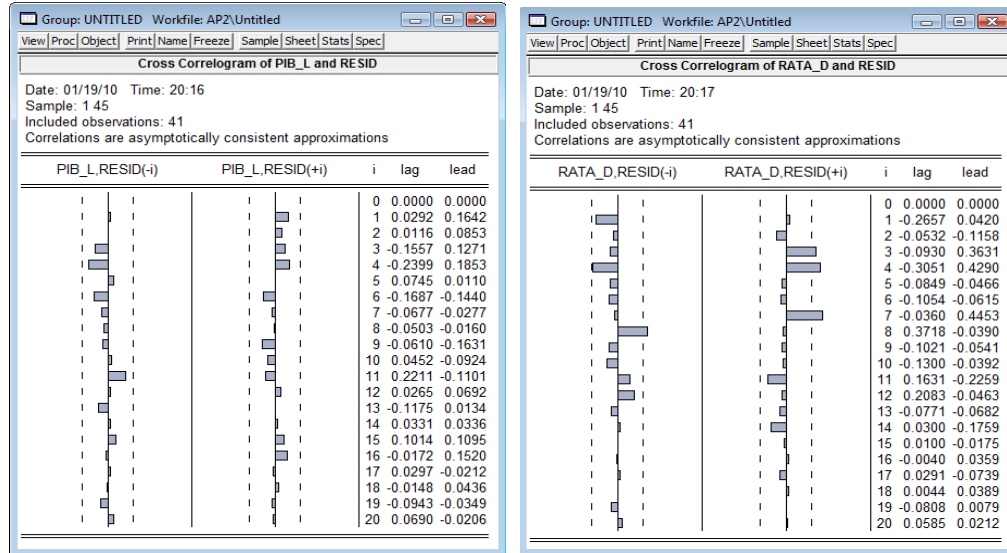


Figure 9. The Eviews window with presenting two corelograme

It is noticed that the values are uncorrelated because they don't exceed the confidence band, except lag 7.

3.6. Among the explanatory variables there is no significant linear dependency

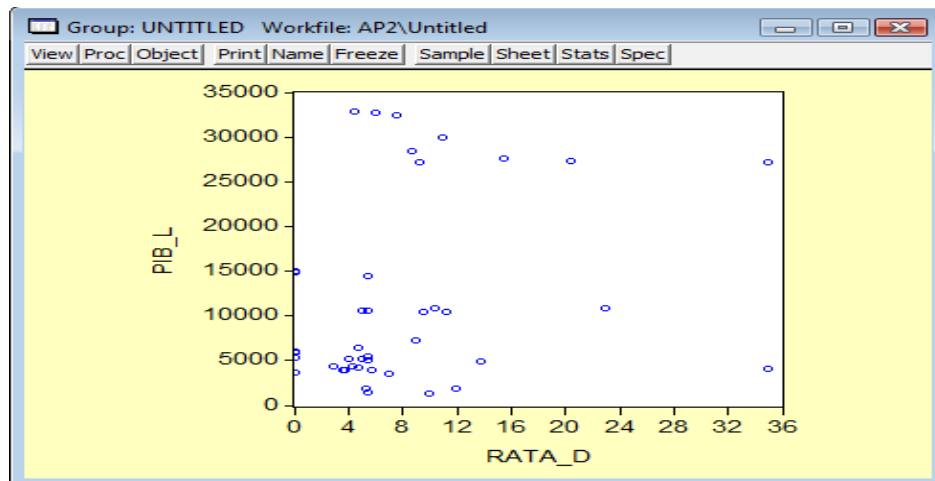


Figure 10. Graphical representation of the data cloud of GDP and interest rate

To test this hypothesis a point cloud is made between explanatory variables rata_d_pib_1 , where we can observe that between GDP and interest rate there is no linear link, ie a straight line can't go through a data cloud leaving out a smaller number of points, with a smaller error.

3.7. The normality of errors

Normality of errors is seen in the histogram of errors. The Skewness indicator isn't close to 0 and kurtosis is not close to 3, the result is an error for rejecting the null hypothesis (normal distribution of $p = 0$).

From the assumptions above, we conclude that the linear regression model must be corrected to meet the assumptions of a multiple linear regression model, because the admission of this model may cause errors such as:

- overstatement of the determination report
- the inefficient estimators in estimation;
- erroneous results after applying the t-Student test indicating a higher significance of the estimators

Given the above, we suggest a model equivalent to the interpretation of elasticities as:

$$\log(\text{CONS_L}_{ij}) = C(1) + C(2) \cdot \log(\text{GDP_L}_{ij}) + C(3) \cdot \log(\text{RATA_D}_{ij}), \quad (5)$$

Estimating the parameters using OLS we lead to the following relation:

$$\begin{aligned} \log(\text{CONS_L}_{ij}) = & 0.07648345836 + 0.9685414436 \cdot \log(\text{GDP_L}_{ij}) \\ & - 0.008151603069 \cdot \log(\text{RATA_D}_{ij}), \end{aligned} \quad (6)$$

This econometric model is better than the previous one because of the following reasons:

- errors follow a normal distribution, by the medium 0 and the repartition σ^2
- the hypothesis of the autocorrelation is fulfilled, the Durbin-Watson statistic $DW \in [d_L, 4-d_U]$, shows no autocorrelation
- the hypothesis of the homoscedasticitate is fulfilled.

4. MAKING FORECAST

Applying this model on the series of known data, ie GDP and interest rates in 2003, we can predict this year's consumption for three countries: Hungary, Poland and United Kingdom.

After running the EViews program, the following prognoses were extracted:

- For Hungary: the consumption is 5441.164895 having an error of approx. 15%
- For Poland: the consumption is 4447.892486 having an error of approx. 8%
- For United Kingdom: the consumption is 23279.98065 having an error of approx. 15%

In making the predictions on this econometric model, we note that this model has to be improved to achieve a probability value under 5%.

5. CONCLUSIONS

Based on the model above can be seen that in Romania the interest rate correlates well with the growth rate of GDP. This rate decreases when the total expenditure increases, due to increased consumption. This conclusion emerges from the annual BNR references from 2000 to 2003 where we can see that between the GDP and the interest rate there is an inverse relation, meaning that as the interest rate decrease (in 2000 the average interest rate decreased from 46.6 to 20.34 in 2003) the macroeconomic variable GDP starts to increase (the GDP regarding the prices raised from 803773 billion in 2000 and 1890778 billion in 2003).

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A STUDY REGARDING THE USE OF THE INFORMATION TECHNOLOGY AND COMMUNICATIONS IN THE LOGISTIC ACTIVITY OF SMALL AND MEDIUM ENTERPRISES

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ABSTRACT: *This paper presents the results of a study regarding the necessary means for small and medium enterprises to effectively interact and cooperate in terms of obtaining a maximum profit from transport infrastructures and communications using available and predictable information technology and communications means. The diversity of structures among enterprises has led to the development of new software products, which are more competitive and efficient and are covering a wider domain of application. As the majority of logistics activities are focused on planning, realizing and tracking cargo, managing vehicles and afferent activities, specific software products were designed and developed, generically called TMS. An analysis of current situation shows that small and medium enterprises are using just a small part of available software. They are treat customers individually and does not enable collaboration between customers to reduce transportation costs or sharing the transport resources.*

KEY WORDS: *computerized logistics system; Transportation Management Systems; logistics planning; optimizing costs; ITC*

JEL CLASSIFICATION: *M15, R48*

1. INTRODUCTION

This paper presents the results of a study regarding the necessary means for small and medium enterprises to effectively interact and cooperate in terms of

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obtaining a maximum profit from transport infrastructures and communications using available and predictable information technology and communications means.

The studies will underpin the following:

- Elaboration of organizational models and software applications capable of ensuring access and coordinate the use of logistics infrastructures of small and medium enterprises that are structured in corresponding clusters
- Application of new logistic concepts
- Use of the new technologic infrastructures (GPS, GIS) in logistics strategies of small and medium enterprises

The structure of small and medium enterprises that are situated along the Romanian section of the European road was analyzed. A large variety of logistics strategies were reported to be adopted by the enterprises in order to optimize the activity related to goods and materials supplying, transport and delivery to customers.

Fiercely competition imposes the small and medium enterprises to use more and more complex and efficient computerized resources. The diversity of structures among enterprises has led to the development of new software products, which are more competitive and efficient and are covering a wider domain of application like transportation grants, communications programs, vehicle tracking devices.

An analysis of current situation shows that small and medium enterprises are using just a small part of available software.

The conclusions that have been reached are following:

- For the majority of products, the enterprises are using their own set of transportation, which usually have small capacity.
- Bulky products are delivered using leased vehicles.
- For short terms delivery they are using the services of courier companies.
- In terms of software products, they use their own applications in managing databases, for billing, to track own stocks in storages and documents of transport. Also, spreadsheet software programs such as Microsoft Excel are used to obtain reports.
- Mobile telephony, fax, instant messaging and e-mails are used as means of communications.
- Transportation grants, planning of logistics activities, route planning, and optimization in loading the vehicles or vehicle tracking devices are rarely, or at all, used by the companies.

The total cost of the product, that includes the production costs along with the ones for storage, transportation and manipulation, is the most used indicator in showing logistic activity efficiency. For a correct evaluation there must be held into account the satisfaction index of the client.

As the majority of logistics activities are focused on planning, realizing and tracking cargo, managing vehicles and afferent activities, in the last years specific software products were designed and developed, generically called TMS (Transportation Management Systems).

2. TRANSPORTATION MANAGEMENT SYSTEMS

Transportation Management Systems are software products that integrate means of logistic management and offer support for activities like: organizing the transport of goods, raw materials and finished products; transport activity planning, loading and unloading, storage and retrieval of data in databases, database maintenance, generation of documents and reports. In most of the cases the use of the Internet is needed.

Transportation Management Systems generally offers solutions for planning multi-modal expedition, in management and execution of transport, including renting and tracking of the goods and report preparation. There are program developers that offer ready-made programs through ASP (Application Service Provider). Also, there is a rather large market for IT&L systems (International Trade and Logistics) that are focused on transport and import/export operations.

The main benefits of Transportation Management Systems consist in low costs of transport obtained through: optimizing the method of transport, route and planning, use changes in the method of transportation on predefined routes, tracking and controlling throughout the transport of the cargo.

By utilizing Transportation Management Systems the savings with transport can reach up to 15% in the case of companies which transport large volumes.

Although the majority of Transportation Management Systems are accessible only on-line there are systems that can be configured in accordance with the requirements of the user.

Within TMS:

- Once with GPS development there have been realized applications that can track the merchandise on the route in the benefit of the client or that can track a truck by the dispatcher of the Conveyor Company.
- Mobile telephony and satellite transmission is used for detecting (with lesser precision) the location of the transport.
- The information provided can be seen on electronic maps or on the Internet with the help of specialized software.

In terms of Information Technology and Communications, for realizing TMS, are used (figure 1):

- Systems that provide access to databases.
- Communication through Internet on account of exchanging data and messages.
- Means of drawing and visualizing digital maps
- Electronic devices that ensure the mobility of the user

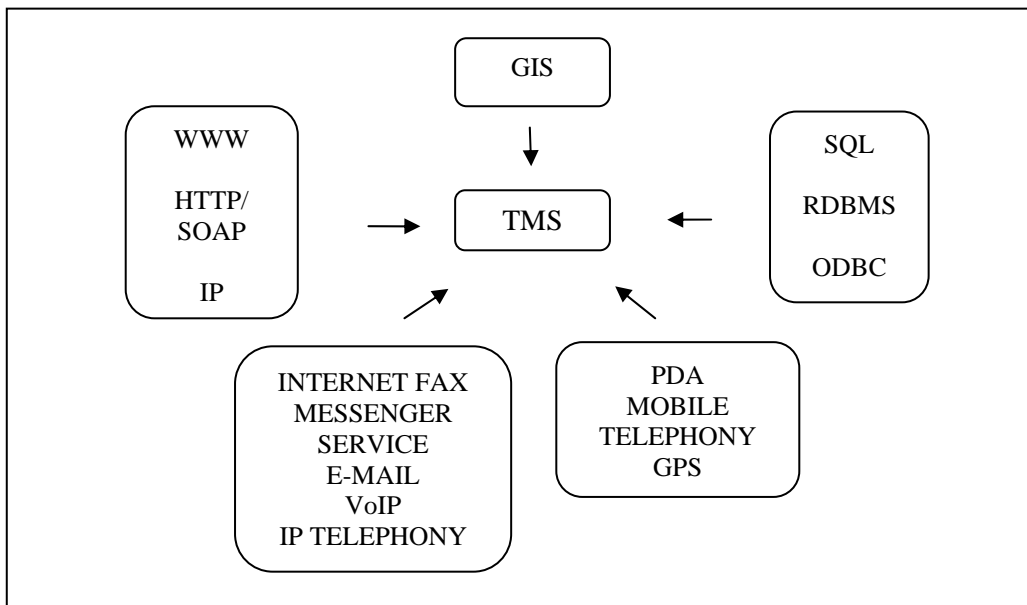


Figure 1. Information technologies and communications utilized by TMS

What do the small and middle enterprises expect from a computerized logistics system? After realizing the survey the requirements that a computerized logistics system must fulfill have outlined. Different small and middle enterprises have different opinions on what logistics systems should accomplish. In general, the requirements are spread throughout the complexity beach of logistics systems, from the simplest to the most complex depending on the profile and the logistics strategy adopted by the small and medium enterprise. In the majority of cases the expectations against a computerized logistics system are that this should provide a set of basic services, and rarely additional services. In the order of their importance, the basic services are:

- transportation management offerings
- transportation management requests
- billing and payment process management

TMS offers a series of extended services:

- Transport planning (planning cargo loading process by synchronizing cargo preparatory actions, team preparation and loading facilities, optimize the loading of vehicles by minimizing unused volume and load balancing; route optimization of the transport by establishing the optimal path in space and time; optimization of unloading by synchronizing the time of arrival at the targeted destination).
- Tracking the transport (monitoring planned route and route already made by the vehicles via electronic maps).
- Communication through messages.

- Contract management (registering system users; managing access to system services; building and transmitting transport contracts; managing sent and received contracts).

To have a better image regarding information technology products used in domestic and international logistics, a series of such products were studied, analyzing the facilities they offer.

3. CONCLUSIONS

The facilities offered by TMS were summarized in a general functional scheme (figure 2). In various TMS listed may be missing some of the options presented in the scheme or may occur as separate modules.

Logistics planning may include, in addition to transport activities, storage and loading optimizations related to goods or products: stacking, optimizing product placement in relation to the storage.

In case in which products are delivered with a single means of transport, load optimization is performed, which refers to optimizing the use of space transportation and to ensure a balance of goods distributed in such a way as not to endanger the safety of transport.

If transport is done using several transportation methods, the optimization is more complex and the number of available options can be larger (intermodal transport optimization)

Software applications used for optimization are written in an object-related language which runs under operating systems like Windows or UNIX, after it has been previously installed.

The next phase of the optimization activity, whether it is about optimizing the cargo, whether it is about optimizing the intermodal transport, consist in setting the type (types) of the transportation method; it is achieved, firstly, depending on the volume, weight or the type of the cargo.

In route optimization, the most common used criteria are those of minimum route and minimum time, which in turn generate several alternatives with indexes that are close as value. Navigation programs on digital maps (such as GPI or other) can be useful, and can be embedded in optimization programs or as stand-alone.

Optimizing transport costs can be realized considering all the prior versions. They have a global characteristic, sometimes including the costs of storage – loading – unloading that can differ depending on the chosen alternative.

The selection of the type of transport means and carrier is realized through procedures that give access to the database of the provider or carrier. For an efficient determination, the databases must be updated and have to offer filtering data functions. Databases are in general the type of RDBMS, while the programs are written in SQL language. If, from the point of view of the consumer, an acceptable solution is reached, the procedures of issuing the orders or signing the contract with the carrier can begin.

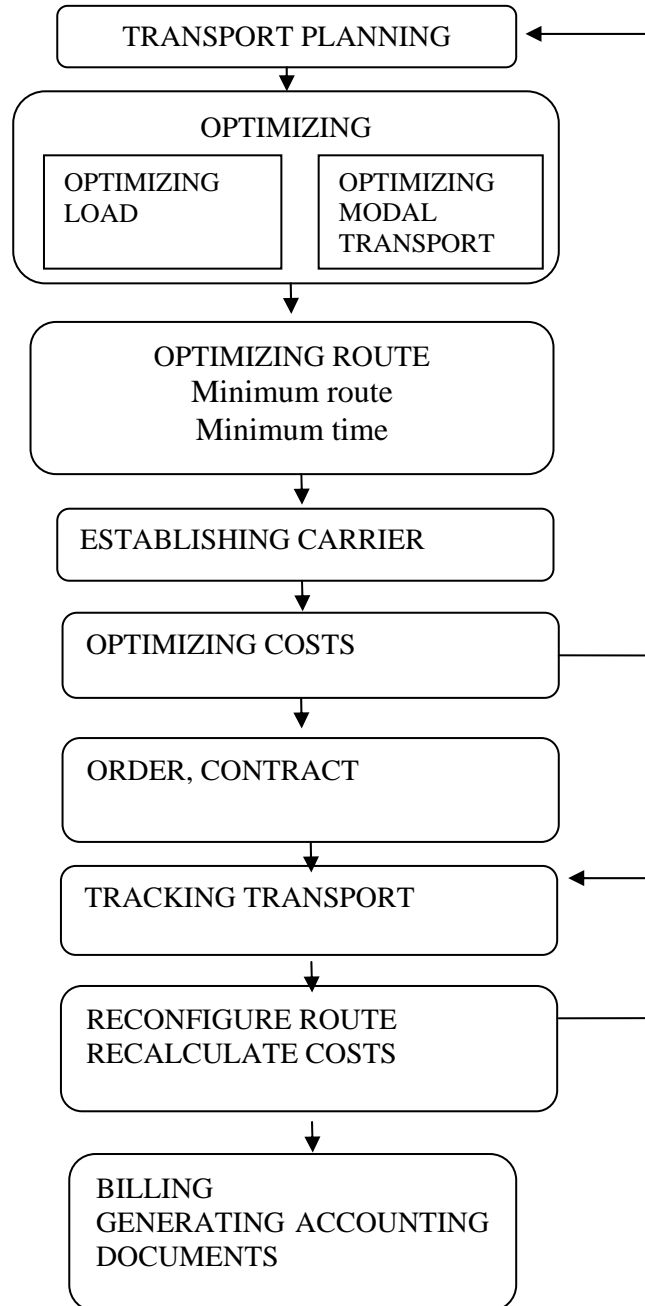


Figure 2. General functional scheme for TMS

Editing, completion, document generation, accounting records activities use SQL languages, with communication network facilities

There are TMS`s that offer possibilities such as tracking of the cargo and route reconfiguration, depending on the situations encountered on the way. This can avoid foreclosure or unforeseen delays. Modern methods (Java mobile phone features GPS, PDA messaging) can be used to continuously update the position of the cargo. Also views on electronic maps can be used (GIS).

An important feature of organizing information structures used in TMS is how different software modules are distributed between provider and customer. From this point of view, distributed or local information structures may be used.

Distributed structures contain both modules running on client computers and those of the provider. Client modules are downloaded from the provider`s website and are activated upon registration and payment, which usually consists of a regular subscription to certain facilities.

With modules downloaded clients can access databases or can launch various programs running resident provider's computer. If there is a possibility of tracking the transport or exchange of documents (order, bill), the programs facilitate the communication with the provider`s administrator and also with the dispatch operator.

Local structures are generally destined to companies that own vehicles or wish to use just the logistical planning of TMS. These programs are usually delivered against a price set accordingly to the conditions of the soft license.

In conclusion, analyzed TMS treat customers individually and does not enable collaboration between customers to reduce transportation costs or sharing the transport resources. Also, these systems do not take into account customer location and does not use of the advantages of their geographical groupings. Therefore, it would be useful to undertake a TMS system that will treat customers in a collaborative computer network, to a more efficient use of the means of transport.

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COMMERCIAL FUND, RECOGNITION AND ASSESSMENT

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BOGDAN COTLEȚ*

ABSTRACT: *The importance of the immaterial investments within companies nowadays urges the specialists in accounting to find the ways to present more in the elements. In their studies researchers face the controversy reinvestments, as an asset in the balance sheet or an expense in the profit or loss account. The main goal of this paper is to analyze the difficulties in commercial fund. In the first part we will analyze various definitions of the problems concerning the commercial fund's recognition and assessment. The paper also suggests that investments are really social and economic problems.*

KEY WORDS: *immaterial investments; commercial fund; commercial fund's recognition; clusters*

JEL CLASSIFICATION: M41

1. INTRODUCTION

In the last decades a significant change has been manifesting as a result of increased importance of immaterial investments. Technology development, and especially of the technologies regarding information transfer and communication, reducing time for the technological cycle and the increased competition are only a few of the elements that attract the enterprises attention upon the ways to remain competitive.

If in the past, an enterprise's development depended on the effectual organization of the material assets, with physical existence, today we can't analyse the enterprise and its future without bringing up the immaterial. The potential of an enterprise regarding knowledge, information, technical progress, intelligence and the

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way it administrates them are essential elements that distinguish it from its competitors. The essence of a person's, an enterprise's or an entire society's capacity to produce opulence consists firstly in the specific knowledge that it possesses.

The ideas mentioned above induce the fact that we have transited from an industrial society, where the main position was seized by material assets, to an informational society, where the leading part is played by human capital. The essential difference between enterprises is given by people and not as much as building and equipments.

It is noticeable that, besides the already existent elements (work, tangible assets), the new elements are beginning to appear more and more in an enterprise's life, *such as:*

- *intelligence ;*
- *technical progress ;*
- *information ;*
- *knowledge.*

We are wondering now how will accounting, used to a representation system only for the concrete and verifiable, that is based on a proof, a property document, surprise the essence of abstract elements in an enterprise, such as immaterial investments.

Although intangible elements have become more and more important in the modern economy, financial accounting produces insufficient information about it, as a result the investors are uninformed and the managers lead based on assumptions.

Along with its co-workers (Lev, 2002), has brought strong arguments, showing the this development of the economy asks that these intangible elements to be recognised in financial situations: "we use a system to make decisions old for over 500 years in a complex business environment, in which the essential actives that create value have fundamentally changed".

The absence of reliable information about intangible assets represents a social and economic problem nowadays (for example: if investors would have had more reliable information regarding intangible assets of the companies from the internet, it would have been easier to estimate their real value). But the difficulties don't appear only concerning financial communication regarding intangible elements, but they start from defining, classifying, recognizing and evaluating them.

Accounting practices relating to immaterial investments are based on theoretical fundaments and equivocal typologies, in the centre of the equivocal typologies, which it is hard to border, we find the commercial fund (Malciu, 2002).

The controversies about the commercial fund are mainly about its recognition and its assessment.

2. COMMERCIAL FUND: THEORETICAL APPROACH

One of the first articles that refer to commercial fund was published in 1884, although this concept is a lot older. Leake (1948, quoted by Bloom, 2006) presents a discussion from 1571 which uses the expression "good will..." But also his states that the firs reference of the term good will belong to CRUTWELL V. LYE 1810, in a

lecture about which Lord Eldon commented upon:” commercial fund which was the topic of the sale is nothing more than the possibility that the old customers return at the same place”, thus referring to one of the components of the commercial fund: clients’ fidelity.

Since then, many articles and books have been written referring to commercial fund, same as generations of fixers have confronted with this problem.

Internationally, commercial fund is debated both in the *rules on intangible assets* and in those *referring to clusters*. Through the issuance by FASB in 2001 of the standards SFAS 141 *Clusters* and SFAS 142 *Commercial fund and other intangible assets*, there have been essential changes by acceptance as a single method of registering clusters of the acquisition method and especially by changing the scheme of the commercial fund further evaluation, passing from the depreciation system to the application system impairment test.

The international accounting standardization body in the convergence project with the American referential renounces at standard IAS 22 *Clusters* and it adopts in 2004 the International Financial Reporting Standard (IFRS) 3 *Combinations (groups) of enterprises*, which requires the same treatment as American standards. Also, in the same convergence project on clusters it has been reviewed the standard IAS 38 *Intangible assets* in 2004.

The project’s objective was to improve quality and to obtain international convergence in clusters’ accounting and of subsequent accounting regarding commercial funds and intangible assets obtained due to clusters.

By revising IAS 38 *Intangible assets* it wasn’t followed the reestablishment off all the requirements of the standard. The changes made to the standard are basically related to clarifying the notion of “feature identification” in terms of intangible assets, life length of life and depreciation of intangible assets and accounting of research and development projects obtained by clusters.

IAS 38 *Intangible assets* specify that commercial fund is treated by International Financial Reporting Standard (IFRS) 3 *Clusters*, representing the unidentifiable part of the payment made by the buyer due to clusters.

According to IFRS 3, the commercial fund obtained in clusters is determined as a difference between the acquisition cost of securities and the share that the purchaser recurs in fair value of assets, liabilities and the possible identifiable purchased liabilities of the entity.

Commercial fund is an anticipated payment made by the purchaser on account of future economic benefits that can result from the synergy of the purchased identifiable assets or from the assets that, analyzed individually, don’t meet the recognition criteria in individual cases, but for which the purchaser is willing to make a payment in the acquisition (Feleagă, Malciu, 2004).

Measuring commercial fund as a residual value is consistent with the approach “from top to base”, according to which commercial fund is considered a component of the investment that relies on the purchaser’s expectations regarding future economic benefits arising from clusters. The investment is considered an active (expanded active, for example the entire company), then it is divided into its component parts, and after

the different purchased items are registered as assets what remains represents the commercial fund.

In contrast, “the base to top approach” refers to the fact that when the cost of acquisition exceeds the fair value of the purchased net assets of the entity, probably some resources were obtained by the purchaser. This point of view focused more on the commercial fund’s components, rather than on it measuring (Johnson and Petrone, 1998).

The approach of commercial fund as a residual proportion is widely recognized by the most representative referenced (international, American, British, Australian, European VII directive).

Commercial fund is determined in term of accounting as a residue, as a difference between the *global value of the enterprise* (its real value as a unit) and the *reference value* (fair value of the identifiable assets) (Bloom, 2006).

This *method is a subtractive one* preferred in accounting, but which has the inconvenience that it doesn’t explain the component elements of the immaterial capital. Commercial fund can also be determined through an *additive way*, starting form a direct valuation of its components (patents, licences, brands, distribution networks etc.).

However, this method is rarely used because it doesn’t take into consideration the independence of the active’s component elements and their effects(Feleagă, Malciu, 2004).

3. IS COMMERCIAL FUND AN ASSET OR ISN’T IT?

In order to establish the in favour and against arguments for recognition of the commercial fund as an asset, we will analyse in detail the **definition** of intangible assets established by international accounting standardization body and the problems encountered in identifying the intangible assets.

The previous version of IAS 38 defined intangible asset as an identifiable non-monetary asset without a physical substance held for use in the production or supply of goods or services, for rental or administrative purposes.

The definition of the revised standard eliminates the requirement for asset to be held for use in production or supply of goods or services for rental or administrative services. The council noted that intangible assets have the following essential characteristics: they are resources controlled by the enterprise from which future economic benefits are expected to be obtain by the entity, they have no physical substance and are identifiable.

Thus, it’s concluded that the purpose for which an entity has an element with these characteristics is not relevant to its classification as an intangible asset and that all these elements should enter into the scope of this standard. Hereby, an intangible asset is an identifiable non-monetary mobilization without physical substance.

Accounting for an item in the category of intangible assets requires a firm to demonstrate that the item meets the definition of intangible asset and criteria for recognizing asset (*the company is likely to obtain future economic benefits attributable to the asset and whether the cost of the asset size can be measured reliably*).

For an intangible element to meet the definition of intangible assets, it must have the following characteristics:

- *identifiable character;*
- *control of a resource;*
- *the existence of future economic benefits.*

A non-monetary item without physical substance must be identifiable in order to satisfy the definition for intangible assets. The previous version of IAS 38 did not define the "*identifying characteristic*", but it claimed that an intangible asset can be clearly distinguished from goodwill if it is separable, meaning it can be separated or divided from the entity and sold, licensed, rented or exchanged, but the fact that this is separable isn't a necessary condition for its identification. The revised standard considers that an asset meets the criterion of identification when:

- *it is separable*, meaning it can be separated or divided from the entity and sold, transferred, licensed, rented or exchanged, either individually or together with a contract, a corresponding asset or a liability;

Or

- *it arises from contractual rights or other legal nature*, whether those rights are transferable or separable from the entity or other rights and obligations.

The *first argument* arises *against the recognition of commercial fund as an asset*, caused by failure of the definition of *intangible assets: commercial fund is not separable* and can not be sold separately from the purchased company, being identifiable only as a residual size.

Entities often spend resources or attract their debt for the acquisition, development, maintenance or extension of intangible resources such as:

- scientific or technical knowledge,
- design and implement new systems and processes,
- licensing,
- intellectual property,
- market and trademarks knowledge.

The International Standard IAS 38 *Intangible assets* specifies some examples of intangible items acquired or developed by businesses: software, patents, copyrights, film, customer lists, mortgage rights, fishing licenses, relationships between customers and suppliers, customer loyalty, marketing rights, market share. Also, it highlights that not all assets of this type will satisfy the definition of a separately identifiable intangible asset.

Items that do not meet this definition will be registered in the accounts of expenditure being considered components of the commercial fund created by the entity, unless they are part of what the commercial fund that appears to acquisition, in which case they will be treated as part of it.

Therefore, it is ascertained that in our analysis we have to take account the manner in which the commercial fund was generated: a commercial fund created by the enterprise is a commercial fund obtained as part of a cluster?

An entity controls an asset if the entity has the ability to obtain future economic benefits from resource and to restrict the access of others to those benefits. *An entity's ability to control the future economic benefits of an intangible asset is*

normally separated of the legal rights that apply into a court. In the absence of legal rights, keeping control is more difficult to prove, but there are other ways in which the entity can control the future economic benefits without legal application of law.

For example, in the absence of legal rights that protect the relations with the consumers, the exchange transactions for the same non-contractual relationship with the consumer or to a similar one (other than as part of a cluster) provides evidence that the entity is still able to control the future economic benefits arising from relationships with consumers. Because such exchange transactions also provide evidence that customer relationships are separable, those customer relationships meet the definition of intangible assets.

International Standard IAS 38 also provides examples of intangible elements that generate future economic benefits, but for which problems arise with regard to complete control of such resources or to prevent others from control:

- *technical and market knowledge* (the entity can control the economic benefits generated by them if, for example, that knowledge is protected by legal rights such as copyright, limiting trade agreement or restriction of legal coercion of employees to retain confidentiality);
- *qualified personnel* (the entity can not normally control sufficiently the future economic benefits generated by a team of professionals and training programs, so it is unlikely that technical or management skills to meet the definition of intangible assets, unless they are protected by the legal rights to use and obtain the expected future economic benefits);
- *a portfolio of customers or a market share* (although the entity can predict that because of his efforts to build business relationships and loyalty with consumers, consumers will continue to appeal to it, however, without legal rights that protect or other methods to control customer relationships and loyalty, the entity has insufficient control over future economic benefits with consumers for the immaterial elements such as customer portfolio, market shares, customer relationships or their fidelity to meet the definition of intangible assets).

Consequently, the second argument against the recognition of goodwill as an asset is the fact that not in all cases the enterprise is able to exercise control over the economic resources, although it will obtain future economic benefits by using resources.

Future economic benefits resulting from an intangible asset may include revenue from the sale of products or services, savings or other benefits resulting from the use of assets by the entity (the use of intellectual property in a production process). Obviously, commercial fund generates future economic benefits as a result of a past transaction (clusters), because it's able to create together with other assets, cash flows, the entity controlling these advantages (Feleagă, Malciu, 2004).

Accounting specialists must exercise professional reasoning in assessing the safety degree associated to the flow of future economic benefits towards the enterprise” (Epstein, Ali Mirza, 2005).

One of the most difficult criteria to satisfy is the reliable measure of the cost. This criterion should be respected by all assets.

Thus, it highlights a *third argument against the recognition* of commercial fund as an asset and this consists that fact that commercial fund can't be measured reliably, other than the commercial fund acquired by parties by enterprises.

4. CONCLUSIONS

Commercial fund is conventionally divided into two categories:

- ***internally generated commercial fund***, which is developed by processes and unspecific expenses And the entity that includes items such as advertising, product development, personnel recruiting and training, etc., bearing in mind that not all of these costs create commercial fund, and
- ***purchased commercial fund***, which is more easily defined and identified, being registered at any time, one entity acquires another entity and to requit the excess over what is justified by the fair value of purchased identifiable assets and liabilities (Bloom, 2006).

By amending IAS 38 Intangible Assets, IASB has tried to remove the limits of traditional accounting system and to adapt to the changing realities, where the role of intangibles is becoming stronger. The provisions of the new standard are a step toward achieving the convergence agreement between the International body and the American body. Apparently, the difficult problem of capturing in the balance sheet or other format of value creating intangible elements could not be resolved. The recognition criteria of intangible assets offered by IAS 38 are quite restrictive, and businesses will ascertain that many of the expenses made in order to purchase, or to create an intangible asset will not pass the capitalization test. Given the inability to assess separately the acquired intangible elements and their classification in the category of goodwill acquired, but especially by failing to recognize the goodwill created internally, the reported financial information is not complete and the users are misinformed.

Another step in achieving convergence is adopting the financial reporting standard IFRS 3 Combinations (groups) of enterprises. One of the most important provisions of the standard relates to disclaiming goodwill amortization and subjecting it to an impairment test each year. The presence of a goodwill impairment expense may signal an unfavorable situation in the entity. However, it seems that controversy also may appear in the case of the impairment test, related to the moment when it is made, the impairment indexes, the cash-generating unit or the selected reporting unit, and the depreciation effect on the financial statements.

Following the review of international accounting rules, some intangible elements originally incorporated in goodwill will be accounted separately: research and development projects underway, customer relationships in certain circumstances, for the first ones the conditions for recognition are met, but the last category it is more difficult to control. However, it remains to be clarified the recognition of some intangible elements such as employment contracts of key people, legal unprotected databases, additional skills of a qualified team due to training expenses, special talents in management, administrative and technical areas, etc.. IASB and FASB have in their long-term common agenda a project for accounting intangibles.

The conclusion is that commercial fund meets the criteria to be recognized as asset at the acquisition of a company, but not after this operation (Feleagă, Malciu, 2004).

Internally created commercial fund is not an identifiable resource controlled by the enterprise and it can't be measured reliably.

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THE USE OF THE EMCS BUSINESS WEB APPLICATION FOR MONITORING THE MOVEMENT OF EXCISE GOODS WITHIN THE EUROPEAN COMMUNITY

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ABSTRACT: *EMCS-RO is a tool developed in accordance with EU requirements, which on April 1, 2010 provided electronic transmission of the accompanying administrative document in the states which are members of the communitarian bloc. Access to the EMCS-RO application is given by the National Customs Authority. The EMCS provides the use of ECS (Export Control System) to monitor the output of excise goods within the EU.*

KEY WORDS: *business web application; movement of excise goods; electronic transmission of the accompanying administrative document*

JEL CLASSIFICATION: *M15, R48*

1. THE PRESENTATION OF THE EMCS-RO APPLICATION

As of 15 January 2010, the provisions to complement the electronic accompanying administrative document entered into force; this is meant to be accomplished by using the EMCS-RO application for control movements of excise goods under suspension, instead of the RO-DAI used up to that date. EMCS functions in several key areas: *Common domain* (between the administrations of the members of the EU); *National domain* (administration of the member states, one for each, for

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example in Romania: ANV-ANAF-MFP); *External domain* (economic operators and civil servants).

Common area provides access to the resources of the European Union (EU), such as the system for exchanging excise data - SEED (SEED includes information about companies, authorization, access rights and so on) and reference data (e.g. product codes) and is responsible for disseminating and synchronizing data in all national areas. Each national domain is represented by the Member State Administration (MSA) using a National Excise Application (NEA). NEA offers a service package for members of the external domain and communicates with other national domains, as well as with the common domain through specific channels.

The External field is represented by all economic operators, civil servants and administrators who deal with the national domain through client applications. The next section presents in detail the business processes included in the control system for the motion of excisable goods.

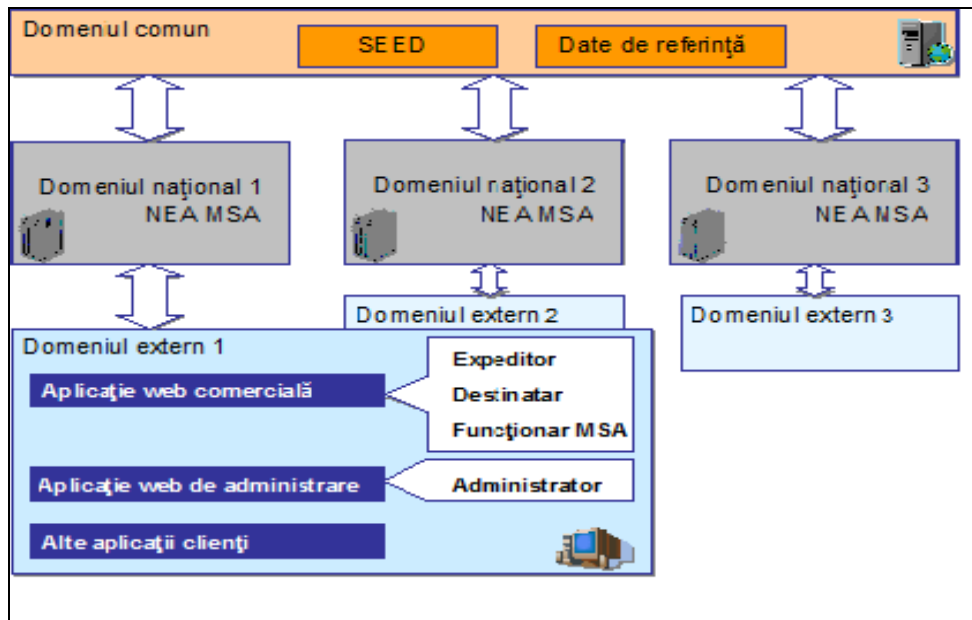


Figure 1. Domains of EMCS

The new electronic system allows real time monitoring of the status of product movements, improving tax administration's capacity to monitor and control trade in excise goods in duty suspension, leading to increased revenue from excise sector, to a reduction in fraud in the field and not least, to the accomplishment of Romania's obligations as a member of the European Union regarding implementation of the EMCS system. Also, ANAF considers that messages sent through EMCS-RO do not replace paper documents and formalities, which means that the issue, transmission and closing of an accompanying administrative document is due both on paper and computer. EMCS (Excise Movement and Control System) is an electronic system for

monitoring movements of excise goods between Member States, under suspension. It will replace paper documents that typically accompany such movements (DAI). EMCS will mean simplification of procedures, elimination of the red tape generated by paper work and the effective use of a modern IT tool which demonstrates an important development for those who sell alcohol, tobacco and energy products.

EMCS will follow in principle all harmonized excisable products (alcohol and alcoholic drinks, tobacco products, energy products) and all those engaged in trade with these products under suspension. The legal basis for the development of EMCS is Decision no. 1152/2003/EC of the European Parliament and the Council from June 16, 2003 on computerization and monitoring movements of excise goods under suspension. In order to implement the EMCS system, the Council of Europe has approved Directive 118 from December 16, 2008 on the general arrangements for excise and has abolished Directive 92/12/EEC. The new Directive provides a legal basis for the use of the EMCS, which will apply from April 1, 2010.

Since the creation of the European Single Market on January 1, 1993, intra-motion movement of excise goods under suspension may take place only between licensed economic operators and must be accompanied by DAI accompanying administrative document and a guarantee of financial safety for the movement, which will be released when the products reach their destination. The system is designed to monitor the movement of excise goods in order to ensure payment of excise duty in the Member State where goods are released for consumption, while respecting the principle of freedom on the Internal Market. Before 1993, these movements were monitored through customs checks at borders between Member States.

Due to the high level of fraud in the Member States and the concomitant decline of national revenue from tobacco and alcohol in particular, the ECOFIN Council of Economic and Finance Ministries of the member states approved on May 19, 1998, the Report of the High Level Group to establish an electronic link among traders through the customs administrations of the Member States, which became known as the EMCS. To assess the implications of introducing such a complex system, the Commission initiated a feasibility study during 1999-2000, supplemented by an Addendum in 2003. The main conclusion of the feasibility study was that the computerization and replacement with an electronic message were feasible.

Decision no. 1152/2003/EC of the European Parliament and Council from June 16, 2003, provided a legal basis for the development of EMCS. In 2004, a reflection group, consisting of representatives of eight member states, analyzed EMCS requirements and established guidelines. EMCS is supposed to be introduced in 3 stages from 2002 to 2013.

2. DESCRIPTION OF SYSTEM OPERATION

In the EMCS a movement of excise goods between two traders is documented by successive states of e-DAI, from the issuance by the sender to the confirmation of the reception of goods by the consignee. An e-DAI is electronically transmitted by the shipper and endorsed by the dispatch Member State. Excise codes related to recipient and senders are checked in the European Register of Operators (SEED). E-DAI is

electronically sent to your Member State of destination, then the message reaches the recipient and, possibly, any other operator concerned (tax representative, guarantor). If the recipient can not connect to the EMCS, he is informed by the Member State of destination or sender. E-DAI can be cancelled or updated under certain conditions.

On receiving the goods, the recipient sends a "report of receipt", stating any deficiencies or irregularities. Other cases may occur, where for example the recipient refuses or partially accepts the delivery. The key element of EMCS is the accompanying administrative document in electronic form (e-DAI), currently used for national deliveries, which will replace the procedure on paper. In the case of movements of excise goods between tax warehouses or between an operator and a registered tax warehouse, e-DAI is drawn up by the consignor and sent to the tax administration to which it belongs. This validates the reference data in the e-DAI (Excise codes of sender and recipient and product), then allocates to the e-DAI a unique reference code called ARC, which it returns to the sender. Only after receiving the ARC can the goods leave the authorized place of dispatch.

When excise goods reach the destination, the consignee shall write a reception report for the tax administration of the Member State of destination. The tax administration validates the reception in accordance with the e-DAI and possibly other information. After validation, the reception report is returned to the dispatcher and all the Member States concerned, including the Member State of dispatch, which will automatically deliver it to the sender. Operators are electronically connected to the EMCS system. Depending on the authorization they hold, they will be able to perform the following operations: connection and submitting of e-DAIs, and amendments, if necessary; connection and drawing up the reception report; change of destination; trail of the movement in which they are involved; accessing ones profile.

The person who accompanies the transport must know the unique reference code given by the system to the e-DAI for the transported products (ARC). The European Commission is still discussing the variant of accompanying the transport with a printed copy of the e-DAI from the system. Each trader uses the system interface provided by the tax/customs national administration. Respecting the national legal provisions, casual economic operators, who are not connected to the system, receive assistance for introducing data or receiving information which concerns them from the system. When the EMCS will be fully operational in all Member States, the procedure on paper will disappear, and the movement of excise goods under suspension will be monitored by EMCS, during which all Member States must provide electronic processing of the confirmation of reception of excisable goods on their territory (at destination). EMCS makes the connection between the excise applications of the Member States. These applications are developed by Member States based on common requirements. The European Commission facilitates access to the EMCS for all operators with excise goods under suspension, but the access to the national excise system will be established by each Member State.

In Romania, the application is made through the PHARE project „Realization and implementation of IT infrastructure concerning administrative cooperation with other Member States” (VIES, SEED and EMCS) and is made freely available to economic operators. Through the efforts of the customs authority to implement the

RO-DAI application nearly 18 months before the mandatory use of EMCS, the national operators have not faced major problems. It is generally considered that the EMCS functionalities and the increased confidence of the legality of the actions performed by economic operators will bring benefits which will help cover long term costs.

3. MAIN FUNCTIONS OF EMCS

The main functions of EMCS involve all situations directly related to the movement of excise goods under suspension. Movement is monitored in EMCS through electronic DAI (e-DAI) at each stage, starting from the issuance of the sender to the acknowledgement of receipt made by the recipient. You can find an electronic DAI during its life cycle, in stages such as "accepted" when it has been validated for dispatch, or "send" when the accepted delivery of products has been notified by a receiving report. These functions relate both to a standard scenario, but also to other different situations listed below:

1) Standard Situation. Standard situation refers to the most frequent cases of EMCS movements between shipper and consignee, and consists of the sending by an authorized warehouse of excise goods under suspension from a tax warehouse to another tax warehouse or a registered operator.

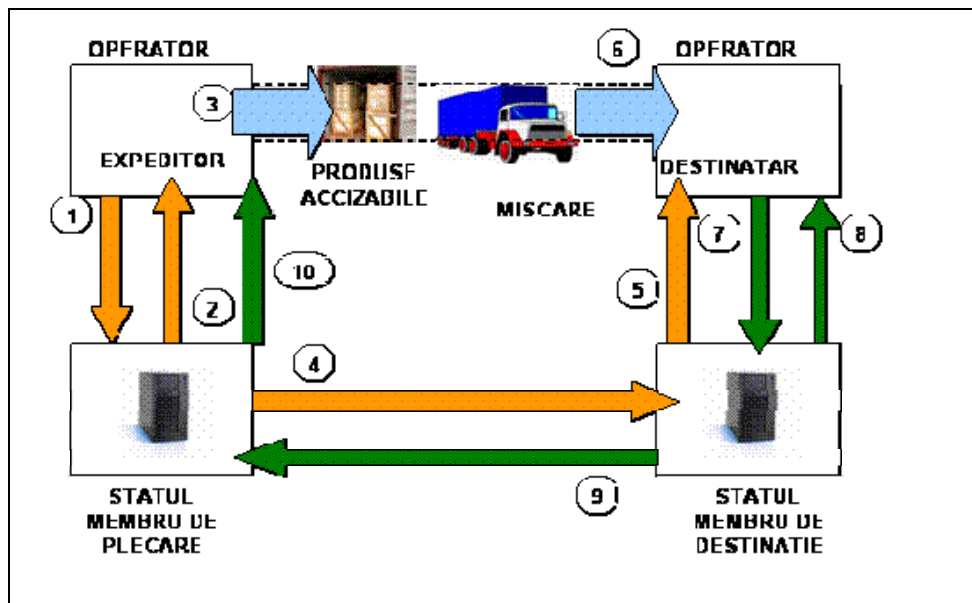


Figure 2. Standard Situation

The authorized depositor is the person or entity authorized to produce, process, hold, receive and dispatch excise goods during his activity, the payment of excises being suspended in conformity with the law. The registered operator is a natural or legal person without authorized warehouse status, who is authorized only to receive

excise goods under suspension from other European Union member states; this operator can not hold nor dispatch such products under suspension.

Both the sender and the recipient are registered in the SEED database by the tax authorities of the Member State concerned. SEED contains all the necessary information for the proper functioning of EMCS. The steps are:

1. The sender, before dispatching the products, completes and loads in the system an electronic DAI, which will be reviewed by the application of the Member State of departure;
2. The Member State of dispatch automatically validates and sends back to the sender the e-DAI. This is an instantaneous step;
3. The sender delivers the excisable goods;
4. The Member State of dispatch sends the e-DAI to the Member State of destination;
5. The Member State of destination shall send the e-DAI to the recipient;
6. The excise goods reach their destination;
7. The recipient sends an electronic report of reception;
8. The Member State of destination validates the report and sends it back to the recipient;
9. The Member State of destination shall send the reception report to the Member State of dispatch;
10. The Member State of dispatch shall forward the report to the sender.

The electronic DAI submitted by the sender to the Administration of the Member State of dispatch is verified in the SEED database, especially as regards the validity of both the excise codes of the sender and the recipient. If one of these data is incorrect, then there will be no validation of the electronic DAI. Once validated, the e-DAI is given a unique registration code (ARC); then the content of the e-DAI is set; the update of the content is not accepted unless you change the destination (using a specific procedure).

The ARC must be available during the transportation of the products. After the validation of the e-DAI, a timer is turned on by the system. If a reception report is not received in this period the e-DAI is marked and the Administration of the Member State of dispatch sends a reminder to the sender and the Administration of the Member State of destination, the latter sending it to the recipient. After this reminder, the recipient and / or sender should solve the situation making use of appropriate means; either the recipient sends a reception report, or the economic operators send messages to the Administrations of the Member States (e.g., indicating the existence of an incident during transport that delayed the movement of goods or that those goods are still in inventory at the destination). The reception of goods is confirmed by the recipient, by sending a reception report, stating that the goods have reached their destination.

After the arrival of goods, the recipient makes an inventory, paying special attention to surpluses and shortages. He records the results in a reception report which is sent for validation to the Administration of the Member State of destination. From a legal point of view, the reception report has the same value for the sender as copy no. 3 of the DAI used today. This means that there is a general discharge of products which is subject to: Payment of fees related to shortcomings; Results of possible future

proceedings, which could confirm deficiencies for which the financial responsibility of the one who guarantees would be engaged. Technically, in EMCS this download will be made through the validation of the reception report by the application of the MS of destination, which is automatically sent to all the administrations of the MS involved, and the sender and recipient.

2) Other situations. Several cases concerning e-DAI are:

◆ **Cancellation.** The sender can cancel a planned transportation. This situation is likely before the actual shipment of goods, if the valid e-DAI does not properly describe the transport or if movement is not possible for some reason. Cancellation is used for example when a dispatcher sends an e-DAI which is not in accordance with the request of the recipient (quantity or nature of the goods), or when the commercial transaction is simply aborted, or when the afferent valid e-DAI is found incorrect before the shipping of goods. In such cases the sender may cancel the e-DAI. After the goods have left the warehouse, an e-DAI can no longer be deleted. If, after the shipment of goods one finds that the e-DAI is not correct, the supplier may submit either a report on the event (if the administration of the shipping MS agrees to register it) or an explanatory message after receiving the goods. If the commercial transaction is cancelled after the goods have been shipped, the supplier must primarily request the return of goods by changing the destination, and then he receives them back by sending a reception report.

◆ **Change of destination.** A sender can change the destination of a transport. One can also update the fields concerning the destination in a DAI, either during transport or following a refusal at delivery or even a refusal of the transport. The sender makes this shift by changing the identity of the recipient (who may even be the sender itself) or just by naming a new place of destination (e.g. in case the goods have to be delivered to another tax warehouse of the same recipient). The change is validated by the administration of the shipping member state and a confirmation of this update is sent back to sender. Meanwhile, this change is brought to the attention of the previous intended destination (the administration of the member state and the recipient) and the updated e-DAI is sent to the new destination. After receiving the e-DAI, the Administration of the new Member State of destination forwards it to the recipient.

◆ **Division (only for energy products).** A sender may divide a shipment of energy products in two or more parties, intended to different destinations. Thus, the sender sends a series of e-DAI to replace the original. Total quantity must remain unchanged. Division (only for energy products) is used for example in the case of transport along the coast, when some of the goods are delivered to multiple harbours or multiple recipients from the same harbour, without the sender knowing in advance who will be the final recipient.

◆ **Unregistered operator.** A recipient may be an unregistered operator. In this case, the unregistered operator obtains a temporary authorization to receive specific amounts of excise goods under suspension; these goods are to be released for consumption upon delivery. The recipient must guarantee in advance the payment of taxes upon arrival of the goods. The temporary authorization is registered in SEED for the period in which it is valid. A temporary authorization is issued either for a single movement of goods (non-reusable authorization) or for more than one transport, but

the total amount of goods moving under suspension must not exceed the amount registered in the authorization (reusable authorization).

◆ **Refusal (before the arrival of goods).** A recipient may reject the goods before their arrival. Before the arrival of goods, the recipient can send a warning or refusal to notify the administration of the Member State and the sender that the e-DAI does not match his order or that he has not requested that delivery. The recipient must deliver such a message immediately after he has discovered the discrepancy. An alert message is sent, for example when wrong quantities are declared, the e-DAI does not match exactly with the order of the recipient; the recipient can wait to check the transport on arrival. A message of refusal is sent for example when the recipient does not expect at all the goods described. If the e-DAI is rejected, the sender must change the destination (or to divide the transport). A change of destination means the change of destination for the return of goods, so the new destination is actually the original place of shipment. If the e-DAI is not rejected, the sender can: continue the transport, if the reasons for the alert do not prevent the goods from being accepted by the recipient, or change the destination; this change must be made as soon as possible, before the goods can reach their original destination, or divide the transport, if this is allowed; cancel the E-DAI if the goods have not left the tax warehouse of dispatch.

◆ **Refusal (after the arrival of goods).** A recipient may completely refuse the delivery. This is done by a report of reception which includes, if relevant, the evaluation of gaps and surpluses. The delivery is not unloaded and the sender must change the destination in order to allow goods to reach another destination (possibly to return to the fiscal warehouse of dispatch). If delivery is refused, at least one reason must be given. One should note that the specification sheets do not provide another procedure of a partial rejection of delivery. This is still being discussed. While waiting for a final solution, a recipient who wishes to deny only part of the delivery can, for example, fully accept the goods and then immediately send a new e-DAI in order to cover the transport of the refused goods to the sender or to another destination designated by the sender.

◆ **Custom Cases.** An EMCS movement can interact with customs procedures, especially when goods are imported or exported. When excise goods are imported and must remain in suspension, the transportation of goods begins from the customs office of imports, immediately after releasing them for free circulation. At customs putting goods in free circulation determines the payment of import duties and the implementation of all measures and formalities which concern the goods; after these processes the goods become available for the importer. Goods can leave the customs office of importation only after the e-DAI is compared with the data reported in the declaration of import. This operation is similar to the standard scenario described above, except that the movement of products does not start from a tax warehouse, and therefore requires a registered sender to send the e-DAI at the import location. Currently, when excisable goods under suspension are exported outside the EU, the destination of the transport is the customs office of exit, through which the goods can leave the EU. This office sends a copy of the DAI (on paper) to the sender for the discharge of the delivery.

4. MOVEMENT OF EXCISE GOODS WITHIN THE EUROPEAN COMMUNITY

EMCS' main scenario includes the movement of excise goods within the European Community (EC). This involves the transportation of goods according to the agreements of the suspension of excises between economic operators (a sender and a recipient) through the authorities of that Member State Administration (MSA) and the national excises applications (NEA) that they use.

Both sender and recipient must be registered in the database of the System for Exchange of Excise Data (SEED) by the corresponding MSA.

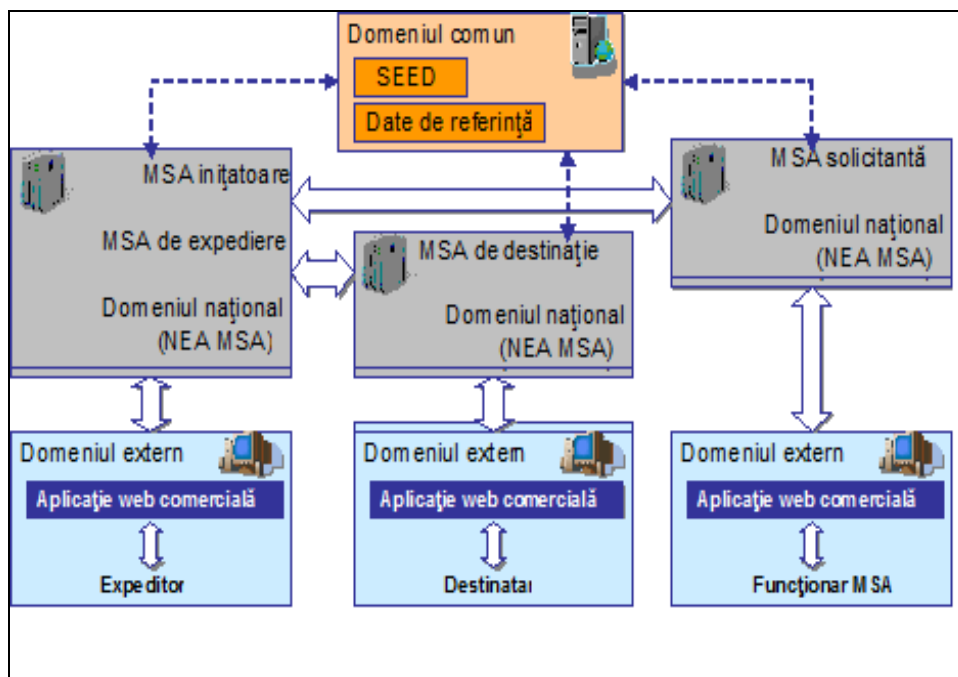


Figure 3. Flow of movements within the EMCS

The process of moving within the EMCS consists of the following main steps:

1. The sender sends a draft of the e-DAI to NEA of the corresponding MSA and provides a guarantee of movement. This guarantee can also be provided by another operator;
2. The MSA responsible for sending validates the draft of the e-DAI according to the information in SEED and the national complementary information. After validation, a reference code known as the ARC is assigned to the e-DAI and it is automatically returned to the sender, who can then dispatch the goods. At the same time, the MSA responsible for sending transmits the form of the e-DAI to the MSA of destination;
3. The MSA of destination forwards the e-DAI to the recipient;

4. On the arrival of the goods, the recipient writes a reception report to be submitted for validation to the MSA of destination;
5. The MSA of destination validates it in accordance with the e-DAI and possible additional information;
6. After validation, the reception report is returned to the recipient for confirmation and to all MSA involved, including to the MSA of dispatch, which then automatically submits it to the sender.

If no shortcomings are described in the report, the return of the reception report releases the e-DAI and the guarantee provided by the guarantor. Clerks of MSA of the Member States which aren't directly involved in the movement of goods can download or reclaim information about movement (e-DAI).

Several cases are possible:

1. the sender can cancel the movement before the goods are shipped from the warehouse;
2. the sender can change the destination of the delivery at any time after the validation and reception of the e-DAI;
3. the recipient may refuse the delivery before or after the dispatch of goods from the warehouse, causing the cancellation of movement or the change of destination.

Direct delivery of excisable goods, is another basic scenario that has a special variant in which the goods are delivered directly into a tax warehouse or at the registered address, but are delivered directly. The following restrictions are applied:

- The recipient is either the manager of an authorized warehouse, or a registered recipient authorized to practice direct delivery.
- On the date of the initiation of movement, the recipient is not entitled to disclose to the sender the name of the actual place of delivery. Consequently, the sender makes a change of destination in order to indicate the address of delivery in the e-DAI.
- Upon the reception of goods, the consignee sends the report of reception mentioned in the e-DAI.

After the reception, the goods are considered to be offered for consumption. Therefore, the excise has to be paid according to national provisions. Each state is responsible for deciding whether or not to allow direct delivery and, if so, to decide whether each delivery location has to be certified separately. The list of the possible delivery sites is not copied in SEED.

5. USING THE EMCS BUSINESS WEB APPLICATION

The EMCS Business web application is meant for the business users from the external field: senders and receivers of goods, MSA clerks. It provides the necessary tools to initiate manage and monitor the movement of excise goods under suspension. It is designed as a direct link between the national and external field. Prerequisites require one to: have installed one of the following browser clients: Internet Explorer 6 or higher; Firefox 1.0.5 or higher; in order to access the EMCS Business web application, you must have the necessary connection. After the launch of the EMCS Business web application, you can view the latest moves, including those outdated and

business exceptions. Also, you can use shortcuts in order to create a movement or to search for an existent movement. In addition, you can have access to News, New Features, Links and Official documents.

Figure 4. EMCS Home

5. CONCLUSION

EMCS is the result of the efforts of the European Community (EC) to unify all border trade between members of the EC. EMCS is designed to monitor the movement of excise goods between Member States, excise goods under the suspension regime. In other words, it represents a link between economic agents who want to monitor the movement of excise goods for which taxes have not yet been paid between Member States. The EMCS provides the use of ECS (Export Control System) to monitor the output of excise goods within the EU. ECS is a project of computerization of customs procedures for export which is under development and will be operational before the

launch of the EMCS. Finally, the destination of the EMCS transport may be subject to other customs procedures. EMCS intends to replace the Accompanying Administrative Document (AAD) in paper format, which now accompanies the movement of goods, with electronic messages from the sender to the recipient, through the administrations of Member States. EMCS helps to simplify procedures, to administer without using paper documents and to use modern IT tools efficiently. This is an important development for retailers of alcohol, tobacco and petroleum products.

The system brings significant improvements to the existing paper process:

- ensures the safe movement of goods, through the verification of data coming from economic agents before dispatching goods, and also ensures more rapid and safe return of the evidence that the goods reached their destination;
- monitors the movement of excisable goods, allowing real-time transmission of information and checks during their movement.

For example, when imported goods are refused by the importer because they have flaws or do not meet the terms of the contract under which they were imported, they can be placed in a customs warehouse, in order to obtain a refund of customs taxes before they are re-exported.

Using the EMCS Business web application and according to the user's permissions the following activities can be performed: creating, managing and monitoring movements of excises; for existing movements, one can send a cancellation, change of destination (COD), reception report (MMR) and explanation for the delay; you can browse movements based on lists of search criteria; you can find and import excise movements located and stored on a different system.

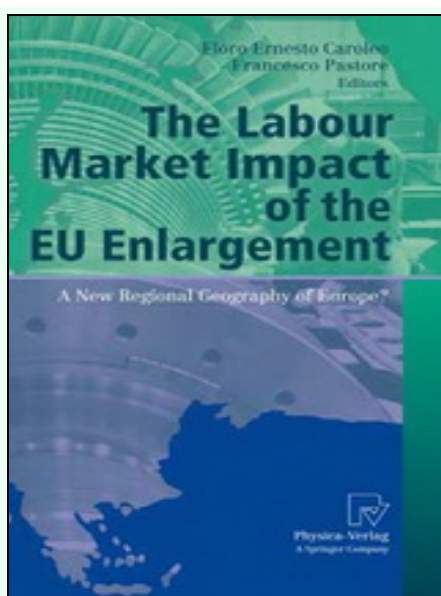
EMCS will be useful in reducing fraud through a system of rapid exchange of information between tax/customs authorities with tasks in the administration of excise duties. Among other things, the new Directive allows Member States to simplify existing rules for commercial movements, including sales at a distance, for excisable products from a Member State to another, with excises paid in the Member State of dispatch.

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BOOK REVIEW

IMOLA DRIGĂ *



The Labour Market Impact of the EU Enlargement: A New Regional Geography of Europe?

Editors:

- *Floro Ernesto Caroleo*
- *Francesco Pastore*

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The challenges and opportunities imposed by the Eastern Enlargement of the European Union are remarkable. Thus, the free movement of labour constitutes one of the central principles of the European Union because a high degree of labour mobility is expected to favour employment adjustment to changing demand conditions.

The expansion of the EU in 2004 and 2007 to include new member states made it possible for workers from Central and Eastern European countries to take up work in the European Union. Some East to West migration was anticipated as a consequence of EU enlargement due to the income gap between most EU-15 and new member countries. Given the magnitude of income and wage differentials and the strong degree of integration, research on the labour market impact of the EU enlargement

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emphasized concerns among EU members regarding undesirable effects on labour markets and income distribution of Eastern Enlargement.

Recent research concerning new EU member states gives important insights on the causes of emergence of regional unemployment and the mechanisms that might lead to its persistence. The results of these studies are to a certain degree in accordance with the research developed previously to understand the connection between structural change and regional unemployment in market economies.

The book *The Labour Market Impact of the EU Enlargement: A New Regional Geography of Europe?*, edited by **Floro Ernesto Caroleo** and **Francesco Pastore**, represents a collection of essays that debate the continuity of regional patterns of development and employment in old and new European Union regions. The underlying question of these studies refers to the way structural change affect the regional distribution of unemployment in the new EU member states.

As the editors highlighted, “several contributions in the book suggest that a factor common to all backward regions, often neglected in the literature, is to be found in their higher than average degree of structural change or, more precisely, in the hardship they experience in coping with the process of structural change typical of all advanced economies. In the new EU members of CEE, structural change is still a consequence of the continuing process of transition from central planning to a market economy”.

The book represents a major effort in presenting significant findings on:

- the reasons why structural change in some sectors causes a slump in some regions;
- the extent to which poverty traps explain spatial imbalances;
- the degree of convergence across EU countries and regions;
- the role of labour mobility in Central and Eastern Europe;
- the role of pro-active employment schemes and child care facilities in alleviating the hardship of the weakest segments of the population.

From structural point of view, the publication consists of four parts:

- *Part One - An Overview of the Main Issues and the Role of Structural Change*
- *Part Two - New Evidence on Spatial Convergence*
- *Part Three - Is Migration Reinforcing Regional Unemployment Differences?*
- *Part Four - Some Policy Tools.*

In order to show similarities and differences, the first part of the book represents an overview of the literature regarding the impact of structural change on regional labour market imbalances in old and new EU member states. Addressing the question: How did structural change affect the distribution of income growth rates and employment opportunities across regions?, the analysis focuses on the microeconomic foundations of structural change and its impact on labour markets.

The second part of the publication contains four chapters that address issues providing answers to the question: After about 20 years from the onset of transition do regional indicators tend to converge or diverge? This part gives new empirical evidence on spatial convergence and divergence at regional and country level

in Europe and approaches different dimensions, such as: unemployment rates, productivity, incomes per capita and several macroeconomic indicators. The conclusion emerging from these analyses suggests that convergence is not the main trend.

The third part addresses the issue of the adjustment process and the role of labour mobility, the main question asked being the following: Did migration make spatial imbalances reduce or increase? The movement of workers from relatively poorer to wealthier regions is often seen as a potentially important instrument to reduce the welfare costs of labour market adjustment and to mitigate regional inequalities in economic opportunities.

The last part of the book provides an overview of policy relevant issues, such as active labour market policy and services to raise female participation. In particular, the main questions asked are: What policy tools have been used to fight regional imbalances? Were they adequate to the purpose?

The content of this publication is of high interest, the authors are exceptionally clear about the methodology used in the study. The book captures the main issues under discussion and provides a comprehensive set of theoretical and econometric methodologies used in the field of contemporary regional economic research. Thus, readers will find the chapters of the book extremely captivating and easy to follow because of the remarkable clarity of expressions and interpretations.



Floro Ernesto Caroleo

Floro Ernesto Caroleo is *Full Professor of Labour Economics at the Faculty of Economics at the University of Naples “Parthenope”, Italy*. He is Member of the Scientific Board of Scuola Internazionale di Alta Formazione in Relazioni Industriali e di Lavoro – University of Modena and Reggio Emilia, and Member of the Scientific Board of CELPE (Centre of Labour Economics and Economic Policy), University of Salerno.

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He obtained his Ph.D. in Economics at the University of Sussex, UK. He has acted as an advisor for ILO and UNDP and was awarded research grants by EU-TSER, CERGE-EI and EERC.

His main research interests are in the field of regional unemployment differentials, labour market dynamics, school-to-work transitions, human capital economics, and ALMP. His scientific production regards not only Italy, but also a number of countries that have experienced the transition from plan to market.

His papers have been published in a number of scientific journals, including *Eastern European Economics*, *Economics of Education Review*, *Economics of Transition*, *Journal of Economic Surveys*, *Post-Communist Economies*.

He has co-edited a special issue of the *International Journal of Manpower* on: "Vulnerability and Discrimination among Women, Children and Ethnic Minorities".

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