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**I. MACROECONOMIC CONCERNS
IN THE PRONOUNCED INSTABILITY CONDITIONS OF
THE PRESENT ECONOMIC DEVELOPMENT PROCESS**

THE TREASURY ANALYSIS BASED ON THE FINANCIAL RATES, A METHOD OF ASSESSING THE PROFITABILITY AND EFFICIENCY OF THE ECONOMIC AGENTS

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Abstract

The main objective of each firm is to achieve an increased profitability, by determining the quantity of the profit. This indicator is not sufficient to assess the degree of efficiency, profitability or business profitability. It becomes useful, therefore, through the determination of the financial rates, as these companies provide information about the direction towards the business moves.

The financial rates are tools through which firms can make a series of tests and may also determine which strategies to pursue in order to achieve certain objectives.

Based on these considerations, the purpose of this study is to determine a number of financial rates specific to the company treasury, having as a reference point the cash flow statements, and to perform an analysis on the obtained results.

Key-words: *cash flows, financial rates, operating cash flow, profitability, current financial liabilities*

JEL Classifications: M₂₁, M₄₁

The reconstitution of the cash flows on the three categories (operating, investing or financing) allows to obtain some comments regarding the possible treasury difficulties. The financial results reflected through the profit and loss account, on one hand, are often not found in the form of a surplus of money because of the gap between receipts and payments, and on the other hand, due to the financial and investment operations of the company. In these circumstances a firm may be profitable, can make profit, but is not creditworthy because of the lack of liquidity. This fact increases the importance of the cash flow statement.

Based on the information provided by the cash flows statement, we may calculate a series of financial rates that allow a more accurate assessment of the firm's position. Among them we can mention:

1. *The rate of return of cash flows* reflects the information needs of managers and is determined using the relationship:

$$Rr = \frac{CF_e}{K_{inv}} \times 100$$

Where:

R_r = rate of return of cash flows;

CF_e = the operating cash flows;

K_{inv} = the invested capital.

This indicator expresses the revenue generated by operating activities at 100 lei invested capital. It is considered as a favourable situation when this indicator records a higher level than the economic rate of return. This reflects a cash flow superior to profit, on the account of sustained working capital requirements or even reducing it.

2. **The operational cash flow rate** is calculated as the ratio of operating cash flows and current liabilities of the enterprise.

$$R_{CFo} = \frac{CF_e}{D_c} \times 100$$

Where:

R_{CFo} = operating cash flow rate;

CF_e = operating cash flow;

D_c = current liabilities.

This rate expresses the company's ability to meet current obligations due to the cash flow generated by the operating activities. The level of this indicator varies from one organization to another depending on the sector in which it operates, its commercial policy, the level of liabilities of the company etc.

3. **The rate of recovery of current financial liabilities** is determined as the ratio between cash flow generated from operating activities and the company's current financial liabilities.

$$R_{DFc} = \frac{CF_e}{DF_c} \times 100$$

Where:

R_{DFc} = rate of recovery of current financial liabilities;

DF_c = current financial liabilities.

This indicator reflects the company's ability to pay on time the interest-bearing liabilities. The level of this indicator is higher if the company has a better situation.

4. **The rate of interest coverage** is calculated as the ratio of cash flow from operating activities and interest paid on loans.

$$R_{Dob} = \frac{CF_e}{D_p} \times 100$$

Where:

R_{Dob} = rate of interest coverage;

D_p = the paid interest.

A supra unitary level of this indicator means that cash flows from operating activities are sufficient to cover the interests. The level of interest coverage through cash flows is an indicator more relevant than the net profit because the accounting profit is not always found in the form of surplus cash.

5. **The rate of covering the capital cost** is determined by comparing the cash flow from operating activities with the amount of interest and dividends paid.

$$R_k = \frac{CF_e}{D_p + Div_p} \times 100$$

Where:

R_k = rate of covering the capital cost;

D_p = paid interest;

Div_p = paid dividends.

It is considered a favourable situation if this indicator is supra unitary, in a contrary case the firm has to appeal to other amounts in order to paid back the capital.

6. **The rate of investment financing** can be determined as:

$$R_F = \frac{CF_e - D_p}{INV_r} \times 100$$

Where:

R_F = rate of investments financing;

INV_r = the realized investments.

The level of this rate depends on the investments made by the company. A supra unitary level of this indicator signifies that investments were financed through operating cash flows. A sub unitary level of this rate indicates that the firms made large investments to expand the productive potential, their resources are insufficient and the company is obliged to resort to loans.

For example, we present the calculation of these rates for the Neptun Society, based on cash flows statement prepared by the direct method, the data being presented in the following situation:

Table 1

The cash flows statement

- Thousand lei -

The direct method	Year N	Year N+1
Operating activity		
Receipts from sales and services ...	18,128	25,550
(+) advance receipts from clients for the sale of products	613	1,945
(+) other receipts	185	65
(-) payments for suppliers of raw materials and materials	9,004	11,507
(-) payments for suppliers of services	2,012	3,828
(-) payments for suppliers of water, electricity and gas	823	1,486
(-) advances to suppliers of materials and services	481	271
(-) payments regarding the salaries	1,380	1,907
(-) payments regarding the meal tickets	110	266
(-) restraint payments from salaries in benefit of third persons	91	218
(-) payments regarding the social insurances	947	1,257
(-) payments regarding the income tax	292	259
(-) payments regarding the profit income	431	138
(-) payments regarding the VAT	1,087	1,509
(-) payments regarding the local taxes	45	33
(-) payments regarding contributions to special funds	27	33
(-) payments regarding the bank's commissions	115	69
(-) other payments	143	128
Cash flow from operating activity (1)	1,938	4,651
Investment activity		
(-) payments for the tangible assets acquisition	6,468	5,493
(-) payments for the production of assets	358	596
(+) receipts from the tangible assets sale	-	-
(-) payments for the acquisition of the financial assets on short term	-	-
(+) received dividends and interests	2	24
Cash flow from investment activity (2)	-6,824	-6,065
Financing activity		
(+) incomes from shares emission	-	3,058
(+) incomes from subventions	18	74
(-) paid dividends	-	-
(+) incomes from contracted credits	5,141	31
(-) repayments of bank loans	97	1,090
(-) payments regarding the interests	219	338
(-) payments regarding leasing instalments	68	167
Cash flow from financing activity (3)	4,775	1,568
Total cash flow	-111	154
Cash at the beginning of the period	149	36
Cash at the end of the period	38	190

The analysis of cash flows on types of activities shows that the operating activity recorded a positive cash flow in each of the two years considered, an aspect which is considered favourable, the investment activity recorded a negative cash flow due to realized investments, a deficiency which was not fully covered due to the positive flow derived from operating activity, and the financing activity recorded a positive flow, mainly due to the loans contracted in year N, respectively because of the capital increasing in year N-1.

Based on this information we will consider a series of financial rates that will allow a more accurate assessment of the firm's position.

The calculation of these rates is shown below:

Table 2
- Thousands lei -

Base of calculation	Year N	Year N+1
Cash flow from operating activity	1,938.00	4,651.00
Invested capital	12,784.30	20,086.00
Cumulated liabilities	3,413.00	3,307.60
Current financial liabilities	1,841.00	1,720.20
Paid interests	218.60	338.00
Paid dividends	-	-
Realized investments	6,468.30	5,493.00

1. *Rate of return through cash flows*

$$Rr_N = \frac{1,938}{12,784.3} \times 100 = 15.16\%$$

$$Rr_{N+1} = \frac{4,651}{20,086} \times 100 = 23.16\%$$

2. *Rate of operational cash flow*

$$RCFo_N = \frac{1,938}{3,413} \times 100 = 56.78\%$$

$$RCFo_{N+1} = \frac{4,651}{3,307.6} \times 100 = 140.61\%$$

3. *Rate of covering the current financial liabilities*

$$R_{DFc} N = \frac{1,938}{1,841} \times 100 = 105.25\%$$

$$R_{DFc} N+1 = \frac{4,651}{1,720.2} \times 100 = 270.37\%$$

4. Rate of covering the interest

$$R_{Dob} N = \frac{1,938}{218.6} \times 100 = 886.55\%$$

$$R_{Dob} N+1 = \frac{4,651}{338} \times 100 = 1,376.03\%$$

5. Rate of covering the capital cost

$$R_K N = \frac{1,938}{218.6 + 0} \times 100 = 886.55\%$$

$$R_K N+1 = \frac{4,651}{338 + 0} \times 100 = 1,376.03\%$$

6. Rate of investments financing

$$R_F N = \frac{1,938 - 218.6}{6,468.3} \times 100 = 26.58\%$$

$$R_F N+1 = \frac{4,651 - 338}{5,493} \times 100 = 13,778.52\%$$

Conclusions:

From the analysis of these rates we note the following aspects:

- The return rate of cash flows recorded in the current year (N + 1) a higher level than that of the previous year (N).
- The rate of operational cash flow in the current year has a value of 140,61%, which means that current liabilities can be entirely covered with the cash flow from operating activities.
- The rate of covering the current financial liabilities in both years is more than 100%, which means that current liabilities can be covered at the expense of operating cash flow achieved in one year, resulting a lower financial risk.
- The rate of interest coverage is more than 100% (in year N it is 884% and in year N+1 is 1,376%), which means that the cash flow from operating activity

covers entirely the cost of borrowed capital, leaving to the company an amount available for the distribution of the dividends and the financing of investments.

- The rate of coverage of capital cost has values above 100% in both years (in year N = 884% and in year N+1 = 1,376%), which means that the company does not record financial difficulties.

- The rate of investment financing, less than 100% (in year N = 26.55% and in year N+1 = 78.53%), reflects the fact that the cash surplus after interest payments does not cover all the investments. The company is obliged to resort to bank loans for this purpose. This situation is assessed as normal, taking into account the high level of investments in the two years and the fact that the firm is obliged to resort to bank loans to finance them.

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AMELIORATING THE EFFECTS OF GLOBAL CRISIS ON HUMAN RESOURCES

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Abstract

Capitalist globalisation has produced certain negative consequences for human resources, industrial democracy and humanity in general. Globalisation is a powerful force that cannot be denied, however, conversely, it has also threatened life, in a broader sense. Globalisation was perceived by globalisers as a worldwide remedy for worldwide problems, but is viewed with great pessimism amongst proletariat (workers). In fact, current globalisation has an enormous negative impact on human resources, industrial democracy and humanity, at large. Hence, the aim of this paper is to proffer mechanisms, which can ameliorate negative impacts of globalisation on human resources, industrial democracy and humanity. It is the author's belief that if current postulates are considered, globalisation might present a different picture, which could have positive effects on human resources, industrial democracy and humanity, in general.

Key-words: *globalisation, ameliorating mechanisms, human resources, industrial democracy, humanism, labour standard*

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Introduction

Following the end of other alternatives, capitalist globalisation has produced some calamitous consequences for human resources, industrial democracy and humanity in general. Globalisation is presently a fundamental force that cannot be denied, as it affords obvious benefits to a large number of people, however, conversely, it threatens life, in a broader sense. Society currently manifests diverse ills, and it is postulated that protracted civil disturbance and revolutions could isolate governments from their subjects (Slabbert, 2005:738). In fact, globalisation has been endorsed as a worldwide remedy for worldwide problems. However, globalisation as a worldwide remedy, is perceived from the viewpoint of globalisers, but is viewed with pessimism amongst proletariat (workers). According to Ukpere (2007:454), *Globalisation, as extreme internationalism and globalisation as capitalist globalism, have produced the worst nightmare for human resources and industrial democracy.* COSATU (1997) has stated: *In the name of globalisation and international competitiveness, there is a new ideological attack on workers' rights, trade unions, and labour standards. Increasing investments are shifted to countries where no unions are allowed.* While expressing

his resentment towards globalisation, the commander of the Zapatistas National Liberation Front of Mexico, Subcommandante Marcos (1996:1), has opined: *In the name of globalisation, a new world order has begun, but now it is against humanity, as in all world wars, what is at stake, is a new division. This new division of world class consists of increasing the power of the powerful and the misery of the miserable.* Ukpere and Slabbert (2007:356) have argued that the negative impact of globalisation on human resources overwhelm the positive aspects.

The bottlenecks of current globalisation

Negative impacts of globalisation on human resources have been clearly delineated as a growing downward spiral on wages and working conditions; job destruction and losses; a race to the bottom in labour standards; effects of corporate mergers on workers; problems of unemployment; effects of flexibility and casualisation on labour; less training for workers; more expenditure on advertisements and less on workers; expanded global inequality; an increasing rate of poverty; restricted labour mobility; workers' exploitation and abuse in the EPZs; abusive labour relationships and employee killings; industrial actions and violent protests; an increase in crimes; congested jails and forced labour; child labour; footloose speculative capital; the effects of technology on workers; erosion of labour unions' powers and demotion of industrial democracy (for details see Ukpere, 2007; Ukpere and Slabbert, 2007).

Industrial democracy, also known as workers' participation in management, which was one way of introducing democratic principles and industrial humanism into the work place, seems to have been demoted in the present economic era (Uriarte, 1999; Klein, 2001). Industrial democracy, which stressed involvement of workers in the decision-making process in such a way that workers feel a sense of pride in and belonging to their organisations (Tripathi, 2001:492), is presently considered a threat to trade and profit maximisation by transnational corporations (TNCs) and globalising institutions. Workers' participation in the form of co-partnership, labour directors, work committees, collective bargaining and the power to unionise have become irrelevant to most TNCs.

As a matter of fact, certain criteria should be met before a nation or organisation can achieve industrial democracy, which include a need for labour representatives, collective bargaining mechanisms, friendly industrial atmosphere, authority and responsibility, permanent adult workers, respect for workers' democratic rights, good industrial relations, an understanding management team, good consultation avenues, idea sharing, good remuneration to workers, industrial partnerships, job security, good working conditions, management by exception (MBE), management by objective (MBO) and motivational incentives (Sharma, 2000; Bendix, 2004). Other major prerequisites are profit sharing, labour directors, joint decision-making bodies and labour shareholders (Tripathi, 2001; Kumar, 2000). However, regrettably, these enumerated ingredients of industrial democracy have been demoted owing to a weakening of labour unions by automation, flexible employment patterns, lapsed labour laws, rising unemployment, less consultation, autocratic management styles, greed for abnormal profit, use of children and

women labour, in addition to the use of forced labour (Ukpere & Slabbert, 2008:43). These multifaceted, but circular variables within the global economy could be responsible for the dwindling state of workers' quality of working life (QWL).

In fact, the major TNCs seem to have turned a blind eye to the '*Human relations approach*' and have embraced '*Technological Taylorism*', which promises to rout more havoc than previous *Taylorism*. Meanwhile, any threat of workers' actions by unions in one part of the globe is reciprocated by threats of relocation and outsourcing by most TNCs (Martin and Schumann, 1997; Klein, 2001). No wonder that since the advent of globalisation, a continuous weakened labour union, much work flexibility, an increase in the number of temporary workers, increasingly less bargaining power to workers, retrenchment and unemployment have deepened (Went, 2000; Ukpere & Slabbert, 2007). The consequence is a decrease in real wage, wealth concentration and a decline of labour wage shares in national income (Uriarte, 1999:5-6). This situation has also been exacerbated by increasing innovations in technologies.

Technological innovations within the global economy have increased the pace of outsourcing, re-engineering and retrenchments. Collectively, these trends have increased the level of global unemployment, which adversely affects current and potential workers. Moreover, technology has brought about virtual corporation (Prasad, 2004:112). The current virtual corporation promises a reduction of labour force as more and more purchases can be made electronically (Ukpere and Slabbert, 2007b:6). In addition, most corporations are presently empowered to send their data processing to any part of the world that could do the work more cheaply (Martin & Schumann, 1997; BBC News, 8 March, 2006). This is similar to the '*race to the bottom*,' which is detrimental to global workers as they under-bid themselves (Matthews, 1998; Bhagwati, 2004). Furthermore, the virtual corporation does not promote industrial democracy as it deals with invisible workers, nor does it promote unionism, which is an essential ingredient for industrial democracy. An absence of worker representatives and, indeed, industrial democracy, has laid a solid foundation for workers' exploitation (Ukpere, 2007:455). No wonder that since the era of globalisation, workers have experienced the worst exploitation in the form of depleted wages, temporary employment, increasing hours of work, particularly in the EPZs, an uncongenial working atmosphere and a poor quality of work life (Martin & Schumann, 1997; Bloch, 1998). A former belief that an employee is the most vital resource within the organisation who should be developed through education and training, have become passé because it would be unwise to train a person who would be retrenched sooner or later as market forces dictate, since profit is all that matters within a global economy, no matter how it is achieved (Klein, 2001; Ukpere & Slabbert, 2007). This current state of affairs has triggered opposition voices against the current logic. Sklair (2002:1) has observed: *However, by the beginning of the twenty-first century, in the aftermath of the battle of Seattle and many other challenges to capitalist hegemony, it is difficult to deny the centrality of the struggle between the forces for and against capitalist globalisation.*

Ameliorating mechanisms

The divide between the capitalists and workers have distended owing to the exploitation of the latter. These exploitations, in varying degrees, have expanded the level of inequality in societies, and have intensified the divide between the haves and the have-nots, the poorest poor and the richest rich, as well as capitalist globalisers and the proletariat (Bataoel 2003:1; Martin and Schumann, 1997:23; Sklair, 2002:48). The current development has resulted in ill-feelings within societies as major global cities have become a centre for recurring protests and street battles, which should be a warning sign that urgent solutions are desirable, if society should be rescued from the wreckages of an atrocious economic system, otherwise a global catastrophe could be pre-ordained within a few years. Based on this concern, therefore, the present author has charted out some tangible, but not exclusive, suggestions towards building of a more inclusive and fairer globalisation that could ameliorate the plight of global workers, while promoting industrial democracy for the benefit of humanity. These suggestions are outlined below.

A global commitment towards the enshrinement of industrial humanism in the workplace

There is an urgent need for a global commitment towards the enshrinement of industrial humanism in the workplace. A global industrial humanism would focus on the rights and dignity of the human person within the workplace. More than that, industrial humanism would point to the fact that just like the capitalists, workers are also human beings striving for development, growth and self-actualisation, and not machines that simply respond to external pressures. Therefore, there should be a need for a global realisation that, just like organisations, humans, including workers, have an innate inclination towards psychological growth and self fulfilment. Unlike Taylorism, industrial humanism should direct focus on the positive aspects of the conscious mental activity of human elements within the organisations.

Therefore, organisations should assist workers to become their authentic selves, have positive views about themselves and find meaning in the work they do. It should eradicate the impersonal, mechanistic life of alienation and marginalisation of workers in the workplace. In fact, employers should focus on the human person, as a whole, and give consideration to the feelings, thinking and perceptions of workers. Management should consider the impacts of their decisions on the feelings, emotions and esteem of their workers. Indeed, there is the need for management to realise that workers have the ability to take responsibility and, that, if provided with the right opportunities, such as challenging work, and participation in decision-making, through, for example, power sharing, profit sharing and labour directors, they will be effective and satisfied workers. The problems in the workplace should be solved in a humanistic way. In fact, the South African spirit of '*Ubuntu*' should be inculcated into the global workplace. In that sense, both workers and employers should cater for one another and avoid any kind of '*industrial madness*'. Under such circumstances, the role of women in society

should be respected in the workplace – maternity leave should be granted to them during pregnancy, creches should be provided for their children after birth. In addition, their young children should be assisted to go to school, which would reduce the menace of child labour and child crimes. The commitments to observe industrial humanism could be enforced through the ILO conventions whereby member states can be requested to inculcate it into their industrial relations system.

Extension of the general democratic principles to the work-place on a global level

In respect of industrial humanism, there is a need to extend the general, democratic principles to the workplace on a global level. A majority of the civilised world cannot profess democracy when authoritarian regimes of managers rule the global workplace. Democracy, which refers to a government of the people for the people and by the people, should extend to every nook and cranny of society, including the workplace. In that case, management cannot take decisions affecting the organisation and workers without a general consensus. In fact, workers should be consulted on issues affecting them. Management should no longer take decisions on outsourcing, automation, re-engineering and retrenchment, without the consent and sanction of workers. The decisions on the working conditions of workers and the organization of the working environment should be democratically structured and oriented on a global scale. In fact, countries that profess democracy should be informed that limited democracy is not a democracy at all. Real democracy implies the recognition of the fundamental rights of the human person, including the right to gainful employment or work. Therefore, the USA as a nation, spreading democracy around the globe, should also be called upon, as an example, by inculcating democratic values into its workplaces, as increasing job losses, unemployment, inequality and insecurity are, indeed, threats to democracy and true democratic spirit.

A global commitment to adhere to core ILO labour standards

In addition to the extension of democracy, there is a need for a global commitment to adhere to some important ILO labour standards, such as those core labour standards that are contained in ILO Conventions No. 87 and 98, which revolve around the freedom of association and collective bargaining, freedom from forced labour, non-discrimination and the abolition of child labour. The need to adhere to these standards is morally justified on the grounds that they are basic human rights. This does not suggest that other labour standards, such as minimum wages, employment guarantee and health and safety measures, are not equally important, however, the implementation of core standards helps to fulfil other standards. For example, freedom of association would help to produce an effective union that can bargain properly on behalf of its members with regard to issues concerning wages and working conditions. Collective bargaining would assist workers' representatives to put down on paper issues regarding employment contracts, including the tenure of employees and health measures in place in the

workplace. Freedom from forced labour addresses issues of slave and bonded labour. Therefore, granting slaves and bonded labourer their freedom in recognition of their human rights is also important. Freedom from discrimination will ensure that nobody is discriminated against owing to his/her gender, colour, race, religion, culture, taste or belief within the workplace, because they are fundamental human rights, which harmonises with the general spirit of humanism. Abolition of child labour will promise hope for future generations as more children will return to school. In fact, the maintenance of labour standards would assist to reduce industrial disharmony by providing an institutionalised way of minimizing disruption, improving co-operation between employers and employees and, thereby, create a favourable atmosphere for investment, which would generate employment and greater growth in the economy.

It was argued by some southern countries that adherence to some of the core labour standards would reduce their '*comparative advantages*' over the advanced nations in terms of labour supply, productivity and export. However, the present author does not sympathise with this argument. Human rights cannot be sacrificed for productivity and export and should be respected at all times. Moreover, it is important to remark here that most exports from south to north are produced by a small number of NICs, while the vast majority of developing countries export only a meagre of the total. Hence, the implementation of core labour standards will not broadly affect developing countries' comparative advantage in production and trade. Nevertheless, there is a need for expansion in a number of core Conventions, which would make them inclusive and relevant to the needs of the global working population.

A global agenda to improve the quality of work life for workers

Attuned with a commitment to adhere to some core labour standards, should be a global agenda to improve the quality of work life (QWL) for workers. The study has shown that, since the advent of globalisation, there has been a downward spiral on the QWL of global workers, particularly in the EPZs. Most of the jobs in those zones have reflected abusive working relationships, casualisation of employment, poor working conditions, depleted wages, long working hours and less worker participation in decisions. There are also signs that these poor working practices have also crept into the advanced countries, as there is a tendency to sacrifice civilisation for competition. Hence, in order to address this issue, the need for government monitoring of the QWL of workers on a global scale, is, indeed, necessary. The significant predictors of QWL, that governments should consider in their monitoring, should include the degree to which management treat employees with respect and display confidence in their abilities; variety in daily work routine; amount of challenge in work; the degree to which present work leads to good future work opportunity; self esteem; extent to which life outside work affects life at work; and the extent to which work contributes to society. In addition, opportunities should be provided for employees' psychological and material growth. Their jobs should be enriched to make the jobs more pleasurable through

job rotation and multi-skilling, which would meet with the changing circumstances in a dynamic world.

Adoption of the human relations approach of management in the global workplace

In agreement with good QWL, there is a necessity to adopt the human relations approach of management in the global workplace. Every organisation should have an industrial psychologist to assist workers with their emotional problems. This measure is in full recognition of the fact that workers are human beings with emotions, have blood flowing in them, and have feelings. The presence of a psychologist alone can give workers some level of job satisfaction, as long as they can see someone in a professional capacity to speak to when they feel that they are weighed down. Apart from a psychologist, the workplace should be properly laid-out with good ventilation and lighting, which implies that the presence of a good operation or project engineer is required in the workplace. More than that, there is a need for global managers to permit the existence of informal groups in the organisation, as this could motivate workers more than the former structures because group influences are contagious. Moreover, managers should try, as much as possible, to be concerned, friendly and attentive towards workers. This attitude positively affects productivity and boosts further investment, which keeps everyone happy. Also, workers should be communicated with about the rationality of any decisions taken by management in due course. In fact, the participation of workers, in most decisions, will reduce further questioning. Any conflict or dispute should be resolved through dialogue, which would promote industrial harmony. The rationale of adopting human relations in the workplace is that it would integrate all partners in the workplace so that they are motivated to work together productively, co-operatively and with economic, psychological and social satisfaction. The end-game of this measure would be productivity increase, expanded investments and a reduction in the level of unemployment.

Utilisation of industrial democracy as a motivational imperative in the workplace

In addition to the other suggestions, global organisations should endeavour to give room to industrial democracy in the workplace. Industrial democracy can only thrive in the presence of effective unionism and collective bargaining. Unions can help to tackle those external and internal issues concerning workers. Moreover, workers should be given a voice in day-to-day decisions, which affect them in the workplace because association of workers with management provides them with a sense of importance and involvement and self-expression, while they would consider themselves as an indispensable constituent of the organisation. This would help to create a feeling of belonging and motivate them to give all to the organisation. More than that, workers should be freed to have additional-say in planning their personal career paths, and in the way their work is performed. This measure would help to give them a sense of ownership in their jobs and helps them tackle the problems arising from job performance. There is a need to empower

workers through industrial democracy so that instead of running away from responsibility, they will begin to contribute to organisational growth. Indeed, workers need empowerment because empowerment gives workers a feeling of control over their future, and this has important implications for their feelings of self-worth, motivation, mental health and participation in the organisation. Thus, having a sense of control of their future, particularly their work destiny, is important for their psychological state and level of motivation. This would lead to greater productivity, investment and growth. Therefore, it is important that global managers take into consideration this often ignored motivational imperative, namely industrial democracy when dealing with global workers.

A global government policy and commitment towards job creation and security

Still on the list is a global government policy and commitment towards job creation and security. In other words, there should be a government policy which creates decent and permanent jobs. Therefore, any policy that is contrary to this objective should be discouraged or curtailed. The implication of this is that those business practices of casualisation and flexibilisation of employment relations without security and benefits should be properly documented, monitored and, as much as possible, be minimised. The goal of the government and private sectors should be focussed on an expansion of employment opportunities. Instead of full privatisation, the government should enter into a joint venture with the private sector. This will ensure that more jobs are not destroyed. Moreover, instead of selling government enterprises to rich politicians and philanthropists that have embezzled the nation, workers can be requested to purchase the business, which will be sold. This will give higher responsibility to workers and they will endeavour to turn the inefficient business into an efficient one without the discharge of many workers. In fact, this is one way of job creation, retention and security. Moreover, instead of retrenching workers, the government should create jobs for them by encouraging and supporting them to venture into small-scale industries and cooperative societies. Thus, if the removal of state monopolies on communication and energy, as well as the opening up of previously protected sectors of the market, has a devastating effect on the labour market, then any call for liberalisation and openness should be suspended until there is a substantial reduction in unemployment.

Regulation of technologies that destroy job faster

In line with government policy to create lasting employment, there should be some kind of regulation of technologies that destroy jobs faster and bring misery to workers. The rationale for technology creation and promotion should be to serve human interests. As such, technologies, which dehumanise human beings and render them obsolete, should not be promoted. Technologies should be created to enhance the working person's potentialities. It should be created to serve humans and not otherwise, because it is greatly unjust for the creator to serve the created. One possible way to regulate some of these technologies should be through higher

taxation on energies and resources that are used for the manufacturing of these technologies, so that the cost and prices of technologies can push up. Under such circumstances, human labour would be more highly valued, and energy-intensive automation would be less profitable. Moreover, governments of the world should try to regulate other activities, which technology has promoted to the detriment of workers. Activities such as outsourcing, re-engineering and retrenchment, which are all by-products of the technological revolution, should be regulated so that workers are not adversely affected. More than that, before the introduction of technology into the workplace, management should see to it that there is already a place in the organisation to accommodate workers who are displaced by technology in a higher position. In addition to that, men like Bill Gates, who has benefited immensely from technology production and promotion, should also be called upon to contribute, in a philanthropic way, in assisting to ameliorate the plight of workers who are so adversely affected by what they have created and promoted. It could also be part of the general social responsibility of business to workers as community members.

Complementary and comprehensive ideological order

The regulation of technologies, commitment to create jobs and adoption of core labour standards would be futile in the absence of a complementary and comprehensive ideological order. Socialism has failed and capitalism is in the process of failing. Therefore, the only hope left to resurrect socialism and resuscitate capitalism is a complementary and comprehensive ideological order. In that sense, capitalism should be ready to marry socialism, and socialism should be ready to work with capitalism. In fact, there is a need to complement the positive aspects of both ideologies. This is not to postulate the mixed economic system of the 1960s and 1970s because, even then, there was a competitive, but not complementary, relationship between both ideologies. Thus, the difference between the previous ideological set-up and the current one, which the present author is referring to, is that, instead of competitive ideological orders, there should be a complementary and comprehensive one.

In a nutshell, there could be other, better global alternatives to the current single capitalist triumphant orthodoxy. This particular view is reinforced by the recurring protests and confrontations around the world. The first large public protest against the current logic came in Seattle November 1999, at the WTO Ministerial Conference. This was followed by street protests in Bangkok, in February (during the UNCTAD conference), in Washington, in April (during the World Bank-IMF Spring meeting), and in Melbourne (during the Asian Summit of the World Economic Forum), in Prague (during the World Bank-IMF annual meeting) and in Cancun, at Doha, to name a few. These popular protests across the world are basic reflections of the majority's yearning for an alternative ideological-cum-global-order. Hence, as opposed to Francis Fukuyamas' assertion, history has not actually ended and there are many symptoms that capitalism may not after all, be the *'last man standing'*. There could still be the possibility of a complementary relationship between capitalism and socialism (effective state), so that a higher

human, social and economic order is realised (Ukpere & Slabbert, 2008b: 421). This is actually what Slabbert (1996:49) meant by '*capisocism*'.

The power of the state should increase

In fact, the suggestions mentioned above cannot be realised in the absence of an effective state, which would be strong enough to regulate and coordinate the activities of the economy and nation. No matter how small a state is, it should be in-charge of all policies within its territorial boundaries. There should be no excuse that the state could not act because of the enormous powers of the TNCs. In fact, the powers of the TNCs should be made smaller in comparison to the state as the custodian of society. More than that, the state should be free to carry its daily functions and should not be stampeded into rash decisions by the influences of big private business. It also shows that the public's interest should not be sacrificed for self interest. An effective state alone can make policies that are favourable to the majority of the populace. The state should be a powerful participator in the labour relations system of the country. Hence, the state cannot be a passive onlooker of industrial disharmony, because humans, in search of peace and progress, have surrendered their sovereign identity to the state. The state is, indeed, a fine product of human civilisation. It is the authoritative supreme power – the actual sovereign, which has to formulate and execute the will of the people. In this regard, there is a need for a '*developmental state*' – a state, which is democratic and interventionist in nature, with the capability of regulating the operations of the market forces. In other words, the state should not be a passive onlooker of the propagandist slogans of capitalist triumphalism, but should play a catalytic, facilitating role, encouraging and complementing the activities of private businesses and individuals. This would be the best remedy towards a sustainable human, social and economic development in the current post Cold War era, particularly in developing nations (Ukpere & Slabbert, 2008).

Debt cancellation and more developmental aids to the poor nations of the world

There is a need for a global agreement to cancel the debts of poor nations. The efforts of jubilee 2000 towards this direction is quite commendable, however, additional efforts should be made to ensure that all debts owed by poor nations to the advanced nations, are stroked off once and for all. Debt payment and servicing has kept most of these Third World nations backward from venturing into developmental projects that could enhance the living standards of their people. More than that, debt payment and servicing have disabled most poor nations' governments from providing social services, including decent jobs for their people. In fact, it should be remembered that most of these so-called debts arose from the advanced countries' irresponsible lending to Third World dictators who have used this money for self-aggrandisement, and the arduous debts inherited from the colonial masters.

Therefore, it is unreasonable that the poor people in these countries should face the brunt of these irresponsible lending and mounting debts that refuses to

finish or stop. Thus, it is high time that the world is free and cleansed from debt and debt crises. Indeed, if globalisation means a new economic world order, it would then be reasonable that everyone or nations should be freed to start anew. This would minimise the already unevenness in globalisation. Furthermore, not only should debt be cancelled, but the developed countries should assist the developing countries with trade and developmental aids. This would boost investment and employment in the developing countries, making it difficult for the TNCs to hover around poor nations looking for the next cheap shore to exploit. In fact, it is high time to realise that most of the jobs created by the TNCs in the poor nations are merely artificial jobs that could evaporate at any moment. Therefore, the best job should be those that are created by the people, for the people and of the people. However, these dreams could only be realised if the debt of poor countries are cancelled, in addition to a balance in trade and developmental assistance.

A global commitment to alleviate and eradicate poverty

In congruence with debt cancellation, there should be a global commitment to alleviate and eradicate poverty. Jeffrey Sachs, in his book, *The End of Poverty* (2005), has already reminded the world that it is possible to eradicate poverty. Therefore, every hand should be on deck to ensure that this vision is realised. Poverty cannot be eradicated if millions within the global populace are without a decent job. Poverty cannot be eradicated if a majority of the world's workers earn less than the \$1 per day poverty line. In that case, the solution to alleviate poverty lies in the creation of decent jobs, in addition to good remuneration. Hence, instead of depleting the wages of workers as has been witnessed in the global economy, there should be conscientious efforts to improve the amounts that are paid to workers for their inputs in production. More than that, there is a great need to supply the poorest nations in Sub-Saharan Africa, with high variety yield seeds and fertilisers to cultivate enough food for their hungry population because a hungry person is a listless and angry person, who does not have interest in growth and development, except that their immediate problem (hunger) is solved. In fact, wars in Chad, Ethiopia, Eritrea, Somalia and Sudan could probably be attributed to hunger. Thus, hunger and poverty are positively correlated. Poverty alleviation should include sending of more children to school, and empowering small scale businesses in the rural areas. This will reduce the number of workers rushing to the cities to create the worst nightmare of city slums, as witnessed in most global centres.

A progressive taxation system on a global level

The objective of poverty alleviation can only be achieved if a progressive taxation system is instituted around the globe. Even world Monarchs and Presidents need not be excluded from progressive taxation. The rich should be taxed according to their wealth. It is blatantly unfair for the rich to be displaying their wealth and flamboyant lives on televisions to the intimidation and misery of the poor without paying or showing for it. Progressive taxation simply means that the rich should give back more than the poor to the society where they have made

their fortune and are still amassing wealth in addition to their riches. The proceeds of taxation can be used to create employment in the economy, thereby reducing the scourge of poverty and the menace of criminalities. For example, if Bill Gates and others, who are as rich as or richer than him, are properly taxed, the proceeds from such taxation could solve the problem of hunger in the whole of sub-Saharan Africa. Progressive taxation does not only apply to individuals. In fact, most of the TNCs in the Third World enjoying tax heavens should be properly taxed for the poor nations to attend to the developmental requirements of their people. Tax holidays, environmental concessions and permission to TNCs to plunder the economy and workers of the Third World are a great injustice to the people. Thus, there is need for attitudinal change in Third World governments, and TNCs should pay accordingly for all resources extracted or used in the poor countries. Moreover, all monies moving across the globe, for speculative activities, should be heavily taxed. In fact, Tobin Tax initiatives will not be sufficient alone to address this issue. In short, fund movement that does not create value for the indigenous of the destination country should, as much as possible, be restricted. There should be a certification that at least 50% of the funds moved across the globe generates employment.

Discouragement of cut-throat global competition

Additionally, there is a great need for the global government to discourage unhealthy or cut-throat global competition that has taken place since the advent of globalisation. In fact, competition is good as long as it brings general development to a wider section of the masses. Competition is good if additional value is given to a product due to it. However, if competition leads to the economic exclusion of a greater number of people in the community, as witnessed since the era of globalisation, then that competition becomes cut-throat, unhealthy, counterproductive and should as much as possible, be discouraged. Competitions should direct towards the positive impact it creates for the society. For example, organisations could be made to compete on the number of jobs they create in the society, and not on the number of jobs they were able to destroy in order to earn a profit. In this regard, a report card could be kept by the world governments and awards could be given to organisations, which were able to enhance the wellbeing of a community by creating additional jobs or adding value to products or services. This would go a long way to promoting goodwill and, of course, profitability of organisations that have done better. In fact, global corporate managers should be made to understand that job destruction does not enhance competitiveness. They should realise that they can still enhance their profitability without killing jobs. As far as the present author is concerned, competition in the global village has turned to a trade war between global corporations, which has also trickled down as a war between organisations and their workers. Thus, as corporations fight external wars with other corporations, they also come back to fight an internal war with their organisational members through retrenchment. This is, in fact, unethical, unhealthy and unwarranted. Therefore, any competition that tore organisations and nations

apart should be discouraged as much as possible. In short, competition should be directed towards positive ends.

More democratic decision-making international bodies

Furthermore, there is a need for more democratic decision-making international bodies. Indeed, multi-lateral organisations should have multi-lateral decision-making bodies. Decision making in the UN, WTO, IMF and World Bank should incorporate the views and aspirations of all member states. No longer should any nation be given special treatment in organisations that represent the world family. There is an urgent need to encourage the participation of more Third World nations in most of these international bodies. America and Britain should learn not to take unilateral actions on behalf of organisations that are purported to represent the world family. The decisions to enforce any resolution should be sanctioned by the majority of the member states. The activities of American corporate lobbyists in most of these organisations should be documented and, as much as possible, discouraged. Few corporations should not be allowed to determine the fate of 6 billion people through their influence within the international bodies. They should be told the truth no matter how bitter it may sound. The focus of the international organisations should be to create a better and equal world of opportunity for all. This measure would create a kind of balance equation in the global economy.

A global affirmative action

Almost in close relation to equal world of opportunity and poverty eradication, there should be a need for a global affirmative action. Economic empowerment and affirmative action should not only be utilised in South Africa to redress the legacy of apartheid, but should be extended around the globe to address issues that have kept some members of the global communities backward. Needless to mention here that apartheid is not only a South African phenomenon – it is, indeed, everywhere. The segregation between the rich and the poor in societies around the world is, in fact, apartheid of the highest order. The retrenchment of large numbers of workers from civil services and corporations around the world, at the dawn of globalisation, is worse than apartheid. Apartheid is racism, and the world cannot deny the fact that the level of racism is high across the globe.

Today, as Mugabe continues to unleash intolerable conditions for workers and citizens in Zimbabwe, someone should at least remind him that his actions are reminiscent of apartheid of the highest level. Apartheid need not be distinguished by the colour of the skin or by race. It should be told that the oppression of a black man by another black man is apartheid at the highest level. A situation where few groups have been in power since the independence of that nation, as witnessed in most African countries, and amassing wealth for even their families who have yet to be born. They should learn more about the meaning of apartheid in the true sense of it. In America, Europe, Africa and Asia, the gap between the rich and the poor has by far distended. All these issues should be attended through a global affirmative action whereby the cases of previously oppressed people should be

attended to first, before any other case. This will also address the issues of unemployment, poverty and insecurity.

A global solidarity of workers

In mutuality with affirmative action, there is a need for a global solidarity of workers. This calls for unity amongst labour unions and workers around the world. Workers in the north should be empathetic to the plights of their counterparts in the south, and vice versa. Indeed, the call by Karl Marx, more than 100 years ago, for an international solidarity of workers sounds louder here today. The weakness of workers' solidarity is the reason why company workforces, in different countries, can be played off against each other by TNCs. Therefore, if worker representatives should end their myopic ways of reasoning, the efficiently organised corporate lobbies would lose their superiority in the international bodies. The great failing of workers around the world has been their neglect to build a united, powerful international front that could counteract the activities of international business. In fact, the more the extension of material inequality threatens social cohesion in societies around the world, the more necessary it becomes for workers all over the world to defend themselves with regard to their fundamental human rights, and to intensify international social solidarity. This measure will provide scope for the opposition of the free market radicalism that has excluded the majority of the economically weak global workers. Hence, global cooperation and networking between workers in different parts of the world could give much greater reach to the promise made to billions of people at the advent of globalisation. Indeed, every hand should be on deck to shape a better destiny for humanity.

A more humane approach to global issues

Finally, but not in the least, is the need for a more humane approach to global issues. This very suggestion covers all other suggestions. There is a need for everyone to realise that every human being emerged from one source, and will return to that very source. The difference between people of colour is merely a result of biological incident. Otherwise, human beings are from the same source, created according to religious books in the image and likeness of God. That being the case, it is imperative that humans approach one another in a humane way. In that regard, corporations should always reconsider if their decision to retrench lots of workers when the company is still making profits has been done from a humane angle. Also, every person should consider if his action has been done from a humane perspective. Employers should consider if wages paid to workers are sufficient to carry them and their families. The very rich should reconsider if their wealth is worth the billions that are suffering of hunger. Humane approaches to doing things would take away irrationality. If America and Britain had adopted a humane approach, they would not have gone to war with Iraq for the sake of one man. Consider the wastage of human resources through the lives that have been lost in that war, from both sides. In fact, as far as the present author is concerned, that is the highest level of barbarism. The modern world cannot claim to be

civilised when a majority of the people are still exhibiting barbaric tendencies. If humans could adopt humane approaches to solving problems, it is the belief of the author that even terrorism will diminish and die a natural death. Humane approaches call for rationality, consensus and understanding. It also encourages cooperation and mutual sentiment. It radiates the message that everyone should be his brother's keeper. In that case, people cannot be throwing away food in the advanced countries when their brothers and sisters in Africa are dying of kwashiorkor (a medical condition caused by hunger). Humane approaches will make world leaders empathic to the plight of the poorest of the poor. Mother Theresa showed the world an example in this direction and there is a need for more people to emulate her. It takes charity, mercy and love to undertake this mission.

Conclusion

In conclusion, capitalist globalisation has produced some disastrous consequences for human resources, industrial democracy and humanity, at large. There is indeed a negative relationship between globalisation, human resources and industrial democracy. Certainly, there may be other suggestions by various authors towards creating a better globalisation. However, if the suggestions postulated above are taken into consideration, globalisation might present a different picture, which could have a positive effect for human resources, industrial democracy and humanity, in general.

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APPROACHES OF THE COMPETITIVENESS AT THE MACROECONOMIC LEVEL

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Abstract

In this article we approach gradually the competitiveness. Thus we present in the introduction some definitions of this concept, although there isn't a widely accepted definition for this term. Then, we present how this indicator can be measured and used to achieve the national or European strategies. Taking into account the current economic and financial crisis, we presented the measures approved by the Romanian Government for this stage and their effects on the productivity and competitiveness.

Key-words: *competitiveness, Lisbon Agenda, pact on the competitiveness, productivity, Euro Pact*

JEL Classification: P₄₂, G₀₁

Introduction

Taking into account the current context of the global economic and financial crisis, we intend to capture some elements about the concept of competitiveness measuring and the evolution of this indicator.

The concept of competitiveness has the frequent confrontation of the divergent views, so that, until now, there is not a widely accepted definition of the competitiveness and has not yet developed a comprehensive model for the formalization of its content. The current status of the research in this field leaves the disputes of the competitive concept open.

To achieve the purpose objectives we conducted an analysis and a synthesis of the information presented in the literature and in the various reports issued by organizations that monitoring and analyzing the national or international competitiveness evolutions, such as the World Economic Forum, Group of Applied Economics and the Lisbon Agenda.

The concept of the competitiveness

In terms of the reference levels, the approaches of the competence concept are multiple.

The focus can be on the firm level, the industrial sector, on the industry as a whole, a region, national, international (economic blocs) and worldwide. At the *national level*, treating the issue of competitiveness is based on the Porter's model, which has many interpretative meanings and defines four determinants of a

country's competitive advantages: the resource endowment, the business environment, related and supporting industries, the demand of the intern goods and services. The novelty and the strength of the model consist in the simultaneous coverage of the firm specific to the factors, industry and country.

The main definition of the competitiveness at the macroeconomic level affirms that it is/means:

- an accumulation of the economic, social and political factors, which contribute to the welfare of a country (*World Economic Forum*, Lopez-Claros et al., 2007, *International Institute for Management Development*, Garelli, 2006);
- balance of the surplus trade and the economic growth (OCDE, 1992);
- higher standard of living, lower level of the involuntary unemployment and the balance of the surplus trade (European Commission, 1998);
- productivity (Dollar & Wolff, 1993, WEF);
- productivity, higher living standards, high levels of export (Burnet, 1999);
- the ability to *sell*, the ability to *attract*, the ability to *adapt* and the ability to *win* (Trabold, 1995);
- the surplus trade balance (Popescu, 2001), trends in prices, of the unit costs with the labour, high rates of the economic growth, while successful in the social and environmental areas (Aiginger, 1998, 2006);
- the performance amount at the microeconomic level (Reiljan et al., 2000);
- the term is meaningless (Krugman, 1994, 1996).

One of the simplest definitions is recommended by the *World Economic Forum*, which describes competitiveness as “the ability of an economy to achieve and maintain high growth rates of GDP per inhabitant”. A similar definition, but more detailed, is given by the *OCDE*, according to which competitiveness is a result when a country can, under free trade and efficient market, produce goods and services that can stand to the test of the international market, on the background of the continuing and even growth of the real incomes in the long term.

From the perspective of the *Lisbon Agenda*, the competitiveness refers to the ability of the countries to maintain at least the high rates in the medium term for both employment growth and labour, which results in increasing the welfare, in the long term. From this perspective, the competitiveness depends primarily on the institutional and economic capacity of the countries to help increase the productivity and innovation.

Lisbon Agenda and competitiveness problem

Lisbon Agenda is the most important European development project that reflects the strategic thinking for the economy and society, at the community level. This document aims: to promote the economic growth based on knowledge and innovation, to make Europe a more attractive place to invest and work, to provide more and better jobs.

The pact on the competitiveness is for the EU, in 2010, another objective of the Lisbon Agenda. In its main lines, it has been approved by the European Council in October last year and aims to strengthen the fiscal discipline, with a strong reflection of the *public debt criterion*, which must not exceed 60% of the gross domestic product and, at the same time, creates a system of sanctions for countries that do not fit the criteria of the Stability Pact or the Maastricht criteria. A second

important element of competitiveness of the pact is to *extend the economic surveillance*, the macroeconomic imbalances and competitiveness. So, through the Commission, the Council intends to pass and will pass – we shall see how – to expand the economic surveillance, *the macroeconomic imbalances and competitiveness*. For example, when we refer to the competitive imbalances, the European Commission will *monitor imbalances between the productivity and the wage increases*. There is a type of competitive imbalance, in order to prevent crises within the EU and the European single market. Also in this competitiveness pact, a robust framework for managing the crisis in the euro area and for creating a mechanism for stability is needed. At the Euro zone Summit on 11 March 2011, the Member States of the Euro area have adopted the **Euro Pact**, which sets a closer *coordination of the economic policies* designed to *increasing the competitiveness and convergence*. The Pact is basically an exercise to coordinate the economic policies of the euro area countries, but Romania is directly interested, given its objective of joining the Euro zone. The decision took into account the broad reform program promoted by agreement with the International Monetary Fund, European Commission and World Bank. The Government of Romania adopted on 23.03.2011 the Romanian participation at the Pact for the Euro.

Evaluation of the competitiveness at the macroeconomic level

Evaluations so far over the competitiveness of the national economies were done either in a wide framework for the assessments on a large number of WEF (World Economic Forum – the annual reports on the competitiveness, IMD World Competitiveness Yearbook) economies¹, or in the context of the EU economies assessments, including the new members and the candidate countries (EU Commission, EU Sectoral Competitiveness Indicators, Lisbon Review, CER, The Lisbon Scorecard I...VI) or by the direct national assessment on the achievement of the Lisbon objectives especially in the National Reform Programmes drawn up by all the EU countries. In the case of Romania, there are taken into consideration the GEA reports (Group of Applied Economics) and the National Reform Programmes – Lisbon Strategy 2006.

Of course, not all the included items in these assessments are fully comparable, because indicators do not follow identically.

World Economic Forum captures the factors complexity by which the competitiveness depends in the current condition, respectively the productivity which expressed it. It is taken into account, in addition to the previous assessments, the labour efficiency factor, the labour market flexibility, otherwise considered very important in the Lisbon Strategy.

The global competitiveness factors are included in 9 groups². Although these are common factors of competitiveness, it is assumed that their importance is not

¹ Number of economies took in the assessment amounts, in the latest Report of WEF, is 172, and in case of IMD, World Competitiveness Yearbook, 60 national and regional economies.

² The 9 pillars of competitiveness: 1. Institution; 2. Infrastructure; 3. Macroeconomics; 4. Health and primary education; 5. Higher education and qualifications; 6. Market efficiency; 7. Technological preparation degree; 8. The level of complexity of the business; 9. Innovation in WEF Global Competitiveness Index, 2006.

the same in all countries in a given period, due to different levels of development. As a result, the weight factors in the final outcome in a given time vary from one country to another, from one group of countries to another. Depending on the contribution of the productivity factors, in the WEF report were identified three stages (Porter M., 1993) in which the countries are, and those are the following:

Stage I: *Competitiveness due to factors of production* (unskilled or poorly qualified labour; the natural resources). The economy is competitive, mainly due to the lower prices, but the products are less complex. However, there is assumed the presence of the essential basic conditions (institutions, infrastructure, macroeconomics, health and primary education).

Stage II: *Competitiveness determined by efficiency factors* (the more efficient production is; the better quality products are). The competitive conditions related to a higher education and continuous training and ability to benefit from existing technologies.

Stage III: *Competitiveness based on innovation* (new products obtained from the innovative, complex production processes).

The importance of the individual factors, expressed by weight in the total contribution of the three “pillars” of competitiveness, depends on the stage in which the respective country is in. In other words, to enhance the competitiveness of each country will prioritize according to what can best contribute to enhancing competitiveness/productivity, beside the stage where they are. Putting first, the inconsistent priorities with the country’s economic conditions can mean a waste of resources. There is obviously a logical sequence of these stages, and a logical link between competitive conditions.

Although Romania is far from the final stage of the economic development based on the innovation, it is not unimportant the analysis of such economic germs. This is because studies confirm the importance of higher research and development is the activity leading to innovation, beside the capital accumulation or labour. Economics shows that sustainable growth cannot only be achieved through investment and macroeconomic conditions, unless they are accompanied by the technical progress, which enhances the value of the capital and labour.

Therefore, the change from the resource exploitation to the knowledge exploitation is the touchstone, the jump from the competitiveness based on the cost to that based on the final value. Stimulating the innovation, the research and development activities is therefore an instrument of the jump to other growth tracks of the Romanian economy.

Evolution of the global competitiveness index in Romania

Analysis of the global economic competitiveness index shows the significant differences in the performance between Romania and the **ECE**.

The index of the global competitiveness in Romania increases to 3.85 in 2004, decreases to 3.67 in 2005, increasing to 4.11 in 2009. Romania’s position in the competitiveness ranking (the 67th in 2005, the 68th in 2006, the 74th in 2007, the 68th in 2008 and the 70th in 2009) is mainly explained by the poor quality of institutions (business environment, perception of the corruption), by the relatively low access to technology and by the poor innovation capacity of the economy.

Government's fiscal strategy has consisted of a series of steps which produce long-term savings and improve the quality of the public finances through the reforms in the seven areas of the public sector:

- the public sector restructuring, meaning to reduce the number of employees, combined with a reform of the wage system;
- pension reform;
- implementing of a fiscal responsibility law and the medium-term budgetary;
- reform of the state enterprises;
- financial relations restructuring with the local authorities and self-financing institutions to ensure a greater financial responsibility;
- improvements of the tax administration;
- the flexible social assistance programs;

The effects of these measures on the change of the competitiveness level will be discussed below.

Recently, *World Economic Forum* published the annual report *Global Competitiveness* (2010-2011). This report shows the index of competitiveness for the countries of the world, providing a worldwide reference report and is considered by companies in the international investment plans, especially in the context of globalization, which leads to a significant acceleration of the competition between the economies worldwide.

Studying this report is very important, because it clearly expresses the weaknesses and strengths of the economy. Moreover, the Report constitutes a reference point for the authorities responsible for the macroeconomic policies. In order to increase the national economic competitiveness, the authorities may adopt the appropriate mitigation measures of the economy weakness.

In the Annual Global Competitiveness Report (2009-2010) Romania ranks 64 out of 139 countries with a score of 4.11 p. (on a scale of 1 p. to 7 p.) and in the Annual Global Competitiveness Report (2010-2011), the index of competitiveness for Romania is 4.16 p. what makes our country to be ranked on the 67 position (table 1), then it lost three positions in the global competitiveness rankings.

The first 5 worldwide positions are occupied by Switzerland (5.63 p.), Sweden (5.56 p.), Singapore (5.48 p.), United States (5.43 p.) and Germany (5.39 p.).

As regards the Romanian economy, it ranks on the 77th position on the pillar I, with 4.36 p. In terms of the Pillar II, the economy ranks the 54th position with 4.18 p. The worst situation is represented by the Pillar III (innovation), where we occupied the 91st position with 3.24 p.

Within the European Union Member States, the domestic economy ranks the 24th position with 4.16 p., outpacing the economies of Latvia (4.14 p.), Bulgaria (4.13 p.) and Greece (3.99 p.) (table 1). In my opinion, on the one hand, this situation is due to the worldwide economic crisis, and other issues that affect the business environment in Romania, such as:

- a difficult access to the financing sources;
- the infrastructure quality;

- the government bureaucracy;
- the taxation and regulation in the taxation field;
- lack of transparency of the government decisions.

I believe that Romania's economy has the advantage that can promote the competitiveness, such as: reduced trade tariffs, the number of procedures and the time required for starting a business, the market size.

But in order to be competitive, the economic entities should have both the internal and the external conditions that determine the achievement of the products and services at the lower cost. Or, the benefit that we have to produce cheap is the cheaper labour, which it began not to be cheap because of the social contributions.

Table 1

Rankings of the EU27 in the Global Competitiveness Index 2010-2011

Economy	Rank	Score
Sweden	2	5.56
Germany	5	5.39
Finland	7	5.37
Netherlands	8	5.33
Denmark	9	5.32
United Kingdom	12	5.25
France	15	5.13
Austria	18	5.09
Belgium	19	5.07
Luxembourg	20	5.05
Ireland	29	4.74
Estonia	33	4.61
Czech Republic	36	4.57
Poland	39	4.51
Cyprus	40	4.50
Spain	42	4.49
Slovenia	45	4.42
Portugal	46	4.38
Lithuania	47	4.38
Italy	48	4.37
Malta	50	4.34
Hungary	52	4.33
Slovak Republic	60	4.25
Romania	67	4.16
Latvia	70	4.14
Bulgaria	71	4.13
Greece	83	3.99

Source: The Global Competitiveness Report 2010-2011

We will present below the effect of the employees number decreasing.

According to the National Statistics Institute, the Romanian economy recorded a labour productivity growth in the first two quarters of 2010, compared to the same period of 2009. In order to obtain a unit value of the labour productivity throughout the economy, the ratio of gross value added to the number of employees, respectively to the number of worked hours has been calculated. In *fig. 1* and *table 2*, it can be observed the labour productivity, monitored in the quarterly series on the sectors since 2007.

There is a pronounced cyclical productivity, not just in construction and agriculture, where it would be normal, but also in industry or in financial intermediation, which is no longer justified, in terms of the business seasonality.

The average yield for the 14 quarters, following the values:

- agriculture – 5.86 lei/hour;
- industry – 26.97 euro/hour;
- construction – 31.21 lei/hour;
- commercially – 28.79 lei/hour;
- in the banking sector – 85.77 lei/hour;
- other activities and services – 21.41 lei/hour.

Based on the data from table 2 and figure 1, there are drawn the following conclusions:

- The highest productivity in both the average and the nominal values are recorded in the financial sector and the real estate banking, however, this indicator decreased by approx. 19% in the first half of 2010 and approx. 33% in the second half of 2010 compared to the fourth semester of 2009, due to the diminished consumption, wages and the changed credit conditions.

This high rate of the productivity in the banking services reflects the high costs of financing from the bank loans; it is not training the rest of the economy, increase the exports and imports, it just increases the indebtedness, and further, the bankruptcy risk.

- The lowest indicator of the labour productivity is recorded in agriculture, an average of 5.86 lei/hour, which is primarily due to lack of investment in the technological equipment justified by the difficult access to the financing sources.

- Paradoxically, the productivity in the services is less than in the industrial field, which means that any change in the employment structure from industry towards services has not increased the productivity.

- The labour productivity in construction increased in every quarter, so that, in the fourth quarter of 2008 reached the maximum of 63.1 lei/hour. I believe that this happened due to increasing the turnover in this area as a result of increasing the demand for tourist services, facilities provided by the state for „the acquisition by the young of the first home” and the possibility of contracting the bank loans. Restricting the possibility of the contracting credit, the low wages but also the other effects of the economic crisis caused a drastic reduction in productivity for this sector, of 2010 reaching in the second quarter of 2010 to 24.3 lei/hour.

Table 2

The hourly labour productivity, quarterly series, lei/hour

	TOTAL	Agriculture, hunting, forestry fishing and fishery	Industry, including the electrical energy and thermal, gas and water	Construction
2007T1	15.4	1.7	18.1	13.4
2007T2	18.3	3	23.3	21
2007T3	22	8	24.9	28
2007T4	27.9	6.6	28	50.4
2008T1	18.6	1.8	22.6	17.3
2008T2	23.5	4.2	29.8	30.4
2008T3	28.4	12.2	30.3	39.3
2008T4	33.8	10.3	30.1	63.1
2009T1	20.6	2.1	22.9	20
2009T2	23.0	4.3	28.8	26.5
2009T3	26.6	11.4	29.7	32.0
2009T4	32.4	9.5	31.9	54.7
2010T1	21.0	2.3	25.0	16.6
2010T2	24.3	4.7	32.3	24.3

	Commerce, hotels and restaurants and transport	Financial intermediation and the real estate transactions	Other activities and services
2007T1	23	74.2	11
2007T2	25.6	70.9	14.1
2007T3	26.2	78.2	20.7
2007T4	33.9	88.8	29.3
2008T1	25.8	80	29.3
2008T2	29.4	82	18.5
2008T3	31.4	83.7	27.3
2008T4	40	93.8	17.6
2009T1	26.3	93.8	17.6
2009T2	27.0	81.0	19.3
2009T3	26.9	94.0	25.5
2009T4	34.7	108.2	33.8
2010T1	26.0	91.	16.8
2010T2	26.9	81.3	19.0

Source: processed by the INSSE data.

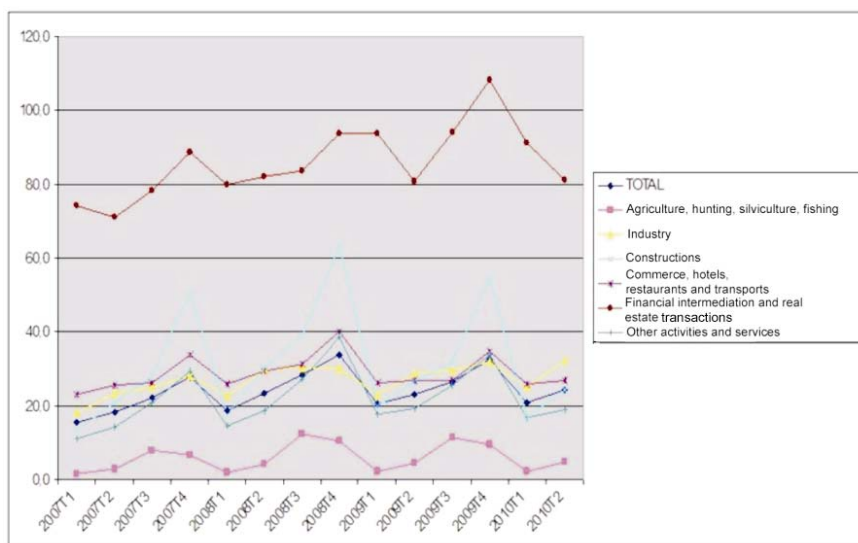


Fig. 1. *The dynamics of hourly labour productivity, lei/worked hour*

In the first ten months of 2010, the number of employees was reduced in the public sector, with 88,300 (-6%) and in the private sector, with 83,000 (-2.9%). The net average monthly wage at the national level increased in November 2009 – November 2010 with 11 lei (0.8%). This means a decrease in purchasing power with 7% (taking into account the inflation of 7.9%). The wages in the private sector has come to exceed the average of that in the public institutions.

According to the productivity Barometer, the decreasing of the employee's number did not make the Romanian economy competitive, but it adjusted the cost of production. But the gross added value does not depend on the number of employees in the first place, but the degree of technology and quality of the equipment, the organization and management efficiency, the corporate governance, the productivity vs. wages, the level of sophistication of the products (which influences the price). Romania is bad in all these chapters, and the mass dismissals, both in public and private sectors, does not solve the problem of the productivity.

The comparative analysis of the productivity.

Although there is an increase in the labour productivity in the nominal terms, when compared to the other EU countries, we find that is less than half the average productivity of the EU countries. Currently, only Bulgaria has a lower productivity than Romania (see table 3). Figure 2 compares the level and evolution of the labour productivity of the economies against which Romania is competing in Europe. There are a range of interesting aspects:

1. The labour productivity growth in Romania between 2000 and 2008 was not unique; all the countries Romania directly competes with, recorded the positive dynamics.

2. Romania, whose productivity is at 48% of the EU average, is ranking significantly after Croatia, Macedonia and Turkey, the non-EU countries. With

such low productivity, Romania cannot find in the exports the main engine of the economic recovery.

3. The only EU countries that have experienced declines in the labour productivity in 2009 were Romania, Lithuania and Greece (see table 3), practically, the European countries have applied the most stringent anti-crisis measures. As for Romania, these measures culminated in 2010, and we expect the negative growth in the productivity to continue.

Romania's transition, but also other former socialist countries of Central and Eastern Europe to a market economy more or less functional, occurred due to expansion of FDI in the region. This was considered the only solution with the best chance of success to reduce the enormous handicap competitiveness of developed economies and economies of new EU Member States.

Note that the FDI recipe works successfully only in countries that direct foreign capital into sectors oriented towards innovation and high technology, such as Denmark, Finland, Germany, Sweden and the UK. Countries like Austria, Belgium, France, Ireland, Luxembourg and the Netherlands are part of the EU27 Member echelon two innovative economies. The two groups of countries are also the ones whose citizens have the highest living standards in the EU, but also those that invest most in training employees, another Achilles heel for Romania. In this regard, even Bulgarians are not worse. Of the total expenditure on labor market, Romania spend only 11.8% on training the employees and Bulgaria – 15.2%, in marked contrast to spending on innovation and performance in countries with high levels of labour productivity, such as Germany (40.4%), France (43.4%) and Ireland (44.2%).

High values of labour productivity are associated with high innovation performance, and differences between countries in this regard is reflected in the welfare of their citizens.

The situation is not singular. The other new Member, States, also attractive markets for FDI, managed a small developmental disability able to recover what separates them from the advanced European economies, considered as standard functionality and performance.

Also note that the highest productivity in the period 2001-2009 is registered in Luxembourg, so I will present below some of the characteristics of this economy:

- is a very small state and has a wide opening to integration and trade (exports of goods and services is 85% and imports about 75-85% of GDP);
- structural changes in economy were very fast (structural developments in the production, use of labor and foreign exchange reflect scope changes over the last two decades);
- there is a policy of economic diversification (more than 100 industries attract more expanding range of services offered by banks, insurance companies and reinsurance emergence of agri-food sector, create more efficient entities in trade and crafts);
- have a very high standard of living (this situation is explained by different factors: the existence of highly productive sectors, financial activities – banking, a relatively large active population due to migration and an important contribution to that);
- add to moderate density of population, absence of large cities, very low rate of unemployment, etc.;
- the financial market is an important segment of the national economy;

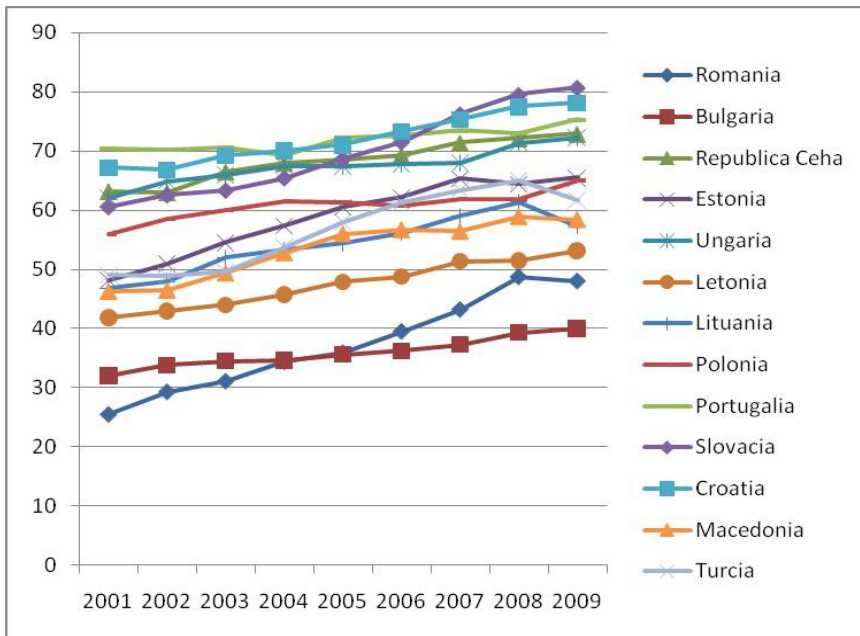
▪ and the Luxembourg Government provides a range of incentives for foreign investors and locals, consisting of subsidies, tax breaks, legislation that promotes the rights of investors and a coherent legal structure and transparency.

Table 3

The labour productivity per person employed, EU27 = 100

	2001	2002	2003	2004	2005	2006	2007	2008	2009
European Union (27 countries)	100	100	100	100	100	100	100	100	100
European Union (25 countries)	104.6	104.5	104.4	104.2	104	103.8	103.6	103.3	104.4
European Union (15 countries)	112.7	112	111.6	111	110.8	110.6	110.2	109.8	109.6
Euro area (16 countries)	112	111.2	110.5	109.5	109.7	109.6	109.6	109.4	109.6
Euro area (15 countries)	112.8	111.9	111.2	110.1	110.3	110.1	110.1	109.9	110
Belgium	113.5	136.2	134.5	131.7	129.7	128.3	126.9	125.5	125.5
Bulgaria	32	33.8	34.5	34.6	35.6	36.2	37.3	39.3	40
Czech Republic	63.2	63	66.5	68	68.5	69.3	71.4	72.1	72.9
Denmark	107.5	108.4	106.1	108.6	106.6	106.4	104.3	103.8	103.3
Germany	106.7	106.3	108.5	108.1	109.2	109.1	108.4	107.2	105.1
Estonia	48.1	50.9	54.5	57.4	60.5	62.1	65.4	64.4	65.5
Ireland	128.1	133.7	136.1	135.4	134.3	135.1	136.9	127.8	130.5
Greece	97.2	99.5	101.2	100.6	98.3	98	96.5	99.3	98
Spain	103.1	104.7	103.7	102	101.1	102.6	103.1	104.2	109.8
France	102.9	125.4	121.5	120.6	122.1	121.1	121.3	120	120.9
Italy	125.4	117.6	115.4	112.1	110.9	109.9	110.5	111.5	111.8
Cyprus	86.6	84.5	82.4	82.8	82.8	83.7	85.3	88.5	89
Latvia	41.8	43	44	45.7	47.9	48.8	51.4	51.5	53.2
Lithuania	46.9	48	52	53.3	54.4	56.2	59	61.3	57.3
Luxembourg	162.2	163.2	167.1	169.6	169.3	178.6	179	177.7	170.3
Hungary	62	64.9	65.9	67.5	67.4	67.8	68	71.4	72.3
Malta	89.8	91.9	90.2	90	91.4	91	89.4	88.9	90.7
Netherlands	113.2	113.2	110.7	112.2	113.9	113.8	113.9	114.3	111.1
Austria	115.2	117.1	118.1	117.5	115	115.9	113.9	114.2	113.2
Poland	56	58.6	60	61.5	61.3	60.7	61.9	61.9	65
Portugal	70.4	70.2	70.5	69.2	72.2	72.5	73.4	72.9	75.3
Romania	25.5	29.3	31.1	34.4	35.9	39.5	43.2	48.7	48
Slovenia	76.3	77.8	79.2	82	83.8	83.9	83.9	84.6	82.4
Slovakia	60.5	62.5	63.3	65.4	68.6	71.5	76.2	79.5	80.7
Finland	112.3	111.4	109.3	112.9	110.5	110	113	112.5	109.1
Sweden	108.5	108.6	111.2	114.9	111.4	112.5	114.3	112.8	109.9
United Kingdom	111.6	112.1	112.5	113.8	112.3	112	109.5	108.6	106.6
Iceland	103.6	104.2	101.1	107.6	105.4	98.7	96	98.8	99.5
Norway	136.5	131.4	134.8	142.3	152.5	156.5	150.1	156.3	146.8
Switzerland	106.8	107.3	105.4	105	104	105.5	108.5	110.5	108.1
Croatia	67.1	66.8	69.2	70	71	73.3	75.3	77.5	78.1
Macedonia	46.3	46.5	49.4	52.8	56	56.7	56.4	58.9	58.4
Turkey	49	48.9	49.6	53.8	58	61.3	63.4	65	61.6
U.S.A.	140.2	140	141.8	142.9	144	140.3	139.2	136.8	140.6
Japan	97.6	97.9	98.5	99.3	99.4	97.4	97.7	94.5	92

Source: Eurostat.



Source: Eurostat.

Fig. 2. The labour productivity in the different European economies, EU27 = 100

Conclusions

At micro, mezzo, macro and mega-economic levels, the new appearance that influences the competitiveness in the 21st century is the intensity of competition, both domestic and international, diverted by the economic globalisation phenomena, the rapid technological change, especially in computing and telecommunications and the progressive liberalization of the international trade, etc.

Regarding the competitiveness definition, we noted that there is no widely accepted definition and we consider the appropriate the OECD definition, according to which competitiveness is the result when a country can, under free trade and efficient market, produce goods and services that can stand the test of the international market, on the background of continuing and even growing of the real incomes in the long term.

Competitiveness at the macroeconomic level is usually assessed through a mix of indicators. Nowadays, one of the best known tools for evaluation/monitoring of the competitiveness is that used by the World Economic Forum, which are linked to the Porter's theory.

The index of the global competitiveness in Romania increases from the 3.85 in 2004 to 4.16 in 2010. In 2010, although there were taken several measures, which must have the immediate effect on the productivity and competitiveness

increasing, their level was not increased, but, according to the WEF Report, the domestic economy has lost three places in the worldwide competitiveness rankings (comparative with the previous year), being now on the 67th position, with a score of 4.16 p. (on a scale from 1 p. to 7 p.).

Foreign direct investment in Romania caused mainly increased imports and increased current account deficit. Therefore, many experts believe that foreign direct investment recipe works with success only in countries that direct foreign capital into sectors and high technology oriented innovation

Finally, we consider that Romania's economic growth engines require a redirection in the medium term, from the consumption to the growth based on the investment and export.

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THE POSTMODERN ETHICS OF GLOBAL CAPITALISM

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Abstract

Global capitalism constitutes a concept surrounded by contention and controversy, fact which is evidenced by the abundance of studies regarding it, and probably the main feature which is nowadays questioned is its moral behaviour. The present study intends to provide an opposite explanation regarding the ethics of global capitalism by associating it with the contemporary movement of post-modernity. The aim of this paper is to demonstrate that global capitalism, since it reflects societies' ethics, cannot be intrinsically good or bad, but morally ambivalent, the determination of global capitalism to be more unprejudiced depending on the willingness of individuals to be moral.

Key-words: *global capitalism, postmodernity, ethics, moral behaviour*

JEL Classifications: A₁₃, F₀₁, I₃₁

Introduction

In the light of the recent events, i.e. the amplitude of the anti-globalization movements, the increasing numbers of fraud scandals and the world financial recession which lasts for several years, a discussion about the ethical nature of global capitalism is imminent. The general need for ethics in the Postmodern Era has its motivation in our almost complete freedom of choice, previously unavailable, that throw us in a state of uncertainty that has never been so agonizing.

Global capitalism, a concept meaning the rise of market capitalism around the world, is characterized by a global economy that is interconnected and networked across national borders and it requires a set of agreements regarding the 'rules of the game' whether these involve accounting regulations, or business norms (Centeno and Cohen, 2010). Some statistics provided by the World Bank can offer an overall economic perspective (World Bank, Maddison, 2010). According to it, the global economy is now larger than it has ever been; the world GDP increased six fold from 1950 to 1998 with an average growth of 3.9% per year, and each person in the world is now, on average, 7 times richer than 100 years ago. Between 1998 and 2008, the world economy has grown by more than a third and some of the poorer parts by two-thirds. Also, an estimated 200 million peoples, i.e. 3% of the global population, live as international migrants, and in 2009 they remitted roughly USD 414 billion, of which over USD 316 billion went to developing countries (IOM, 2010, p. 117). The two major drivers of change in global capitalism are perceived as technology, through the revolution in computing,

information and communications, and the introduction of policies of deregulation, privatization and liberalization (Griffiths, 2003). Supporting globalization, economic policies suggested by the Washington Consensus – deregulation, privatization and liberalization – have become over time, even if they have not been formulated in this manner from the beginning (Williamson, 2004), a policy prescription for development in all developing regions in the world, trying to promote economic growth and alleviate Third World poverty.

But for some authors, global capitalism widened the wealth inequality gap between the richest countries and underdeveloped ones (Stiglitz, 2010; Bauman, 1998). Although globalization has an enormous potential to accelerate economic growth and development through integration into the global economy, technology transfer and dissemination of knowledge, the impact of globalization on poverty reduction was unequal and even marginal in some regions (Nissanke and Thorbecke 2007; Yergin and Stanislaw 2002; Stiglitz 2003). It is well known by now that the moral architecture of the current state of global capitalism left much to be desired and if global capitalism is to become more socially responsible, its moral ingredients do need upgrading.

Literature review

The scientific literature encompasses a wide variety of studies on the evolution of global capitalism and its social consequences. From Djelic's (2006) perspective, we can distinguish four typical links between ethics and capitalism. First is the missionary view because the missionaries conceive capitalism as a profound and ethical system in its nature, being thus a condition for the development and consolidation of a moral behaviour. The second is the Nietzschean view which places capitalism beyond or before ethics. The emphasis is put on the natural character of capitalism, the ethical preoccupations being outside the spheres of capitalism. Third point is a critical one, inspired from Marxist tradition and Christianity. Djelic states that this perspective regards capitalism as a profound immoral system through its own nature. Capitalism works because of the greed and power of individuals, which ultimately will end in the exploitation of one over the other. Since the negative impacts of globalization in Latin America and Asia in the 90s and the increasing numbers of fraud scandals, this opinion started to be popular again. Finally, the last perspective is one of 'regulation', according to which capitalism cannot be a moral system by itself, needing a set of regulations to make it ethical. But regardless of the perspective, one may adopt a deeper understanding of the connection between the two, a thing appears to be imperative, especially now when the capitalist system has gone global.

About post-modernity there are more points of view. Postmodern can be understood as a movement after modernism (Harvey, 2002), which subsumes, assumes or extends the modern or tendencies already present in modernism, not necessarily in strict chronological succession; opposed to modernism (Hassan, 1985), subverting, resisting or countering features of modernism; equivalent to 'late capitalism' (Jameson, 1991), post-industrial, consumerist, and multi- and trans-national capitalism; or as a 'global village' phenomenon, globalization of cultures, races, images, capital and products.

But probably the author who analyzed this phenomenon in the most complex way is Bauman. In his book, *Postmodern ethics*, Bauman identifies seven landmarks of morals condition. First, given the primary structure of human relations, a morality that is not ambivalent is an existential impossibility. A moral behaviour cannot be guaranteed by better designed contexts of human action. Then, the moral phenomena are naturally irrational; they cannot be regular, repetitive, monotonous and predictable. The irrationality of ethics is acknowledged since ancient times, when Aristotle in his famous *Nicomahic Ethics* represents the soul as being divided in a rational part and an irrational one, the latter being composed of a purely irrational (vegetative) and a desirability or ethical part. Also, morality is irretrievably aporetic, most moral choices being made between contradictory impulses. Then, morality cannot be universalized, and from a 'rational order' perspective, morality is and must remain irrational. Regarding this, Bauman (2000, p. 18) considers that the social control of morality is a complex and delicate operation which raises more ambivalence than manages to eliminate. Also, the question 'How is it possible?' has no sense when it is addressed to morality, because otherwise it means that individuals would not normally be moral than from some particular cause. Finally, there is an essential incompatibility between any code of ethics assisted by the power, on the one hand, and the infinitely complex condition of the moral individual, on the other hand. We opted for these seven landmarks because we believe that they constitute the fundamental basis of any research with regard to contemporary ethical issues.

The ethics of global capitalism in the Postmodern Era

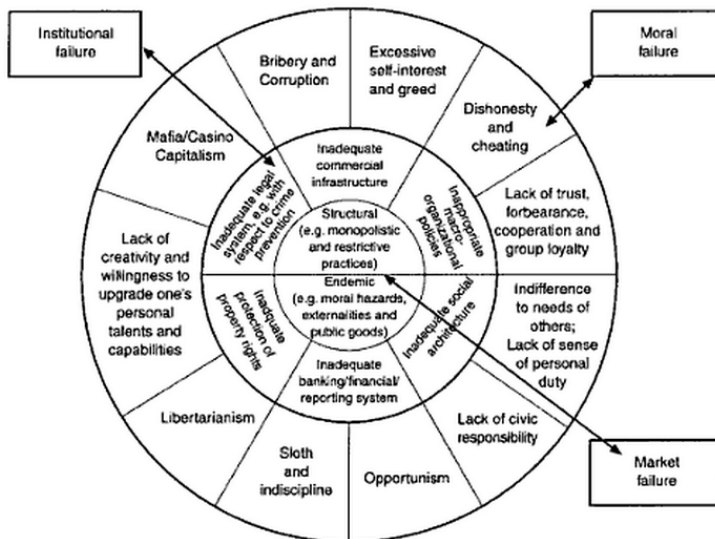
Most ethical problems of global capitalism are related to the development of global financial markets and increasing dominance of multinational companies over the national economies. The weak governments and societies from developing countries are constrained to give strong bargaining positions to multinational companies, leading to a highly controversial nature of their relationship and its implications for economic growth.

The main feature of global capitalism is that it allows the free movement of financial capital and since capital is the essential ingredient in production, countries must compete to attract it, causing a weakening in their capacity to regulate and tax it (Soros, 2002, p. 24). As a consequence, the capital's ability to migrate anywhere undermines the state's ability to exercise control over the economy. Another issue is the high human cost at which it was made, in the developing countries, the market's liberalization and deregulation. Is true that free markets are able to create wealth, but they do not respond to other social needs. Many of their criticisms refer to the several social ills that globalization had caused, such as poverty in poor countries, deterioration of the worldwide environment and the increase of corruption. Maybe the last major problem of global capitalism is, considering its size and the interdependence within it, the risk of triggering an important crisis by a domino effect, destabilizing entire regions, like in the case of Asian crisis of the late '90s, one of the most serious crises in the history of international crisis. An overall perspective shows that the last decades have been the most tumultuous of international monetary history in terms of number, extent and severity of crises. However, in a few words, global capitalism is accused of a globalization of

markets unaccompanied by a corresponding consolidation of social and political international arrangements that has led to a very uneven social development and to an economic slavery.

In an excellent study on a *Christian perspective of global capitalism*, Griffiths (2003, p. 178) suggests that globalization should be placed in some form of moral framework, otherwise the risk will remain that extreme poverty, injustice and the threat to the environment will continue. But globalization represents a complicated process, three decades after its appearance still arising several controversies; and thus is difficult to analyze it without using current tools, that is post-modernity. Postmodern should not be understood in a chronological manner as a displacement of modernism, but in a way of suggestion or premonition of the fact that all of the efforts of modernism were wrong conducted and that, in the end, modernism itself will demonstrate its impossibility (Bauman, 2000, p. 14). It points at the relativity of moral codes and ethical practices that claim to be universal as a result of their narrowness. The global capitalism reflects the societies' ethics it embodies, and societies are formed of complex, unpredictable and ambivalent individuals, a universal ethical code being practically impossible.

According to Dunning (2001), there are three ways in which global capitalism might fail: the moral failure, institutional failure and market failure (see Figure 1). The hypothetical moral failure of global capitalism, identified by Dunning during the Asian crisis, includes eleven causes which we believe that may be at some extent generalized to the whole world as potential risks for the success of global capitalism. It is clear that, from a dynamic perspective, the attitudes and behaviour of each interacts with the other, and so a change in the mindset of the involved participants is imperative. Dunning (2003, p. 27) divides the actions needed for an upgrade of global capitalism in moral virtues and ethical behaviour in two: top-down and bottom-up.



Source: Dunning, 2001, p. 38.

Fig. 1. Illustration of three ways in which global capitalism might fail

These approaches regard the improving of the moral standards of the institutions of global capitalism and those of their participants. Top-down is an externally imposed or influenced approach, while bottom-up is a spontaneous or internally generated approach to upgrading moral attitudes. The top-down approach suggests that moral attitudes and standards should be coerced by laws and regulation or encouraged by incentives or moral suasion, on one group of individuals and institutions by another group at a higher level of governance. The bottom-up approach implies the spontaneous or internalized upgrading of moral values by interest groups or individuals firms such as NGOs. It can be observed that today individuals and NGOs are among the most vocal activist groups pleading for the abolition of social discrimination, human rights abuses, and the employment of child labour; and more positively, for upgrading health, safety and labour standards, and environmental protection.

But when we analyze global capitalism we have to admit its achievements too and the fact that is not a null sum game. Its benefits exceed the costs which mean that the additional wealth produced by globalization could be used to reduce the inequities and other shortcoming of globalization, and would still remain a surplus (Soros, 2002, p. 27). In order for this to happen, a change of individuals' perspective on globalization is requisite. As Bhagwati (2004, p. 265) states in his book *In Defence of Globalization*, "public action will not succeed unless it reflects not only passions but also reason. Reason and analysis require that we abandon the conviction that globalization lacks a human face, an assertion that is tantamount to a false alarm, and embrace the view that it *has* one". And Sachs (2005, p. 352) emphasizes on the fact that the "continued extreme poverty do not invalidate the long, persistent, and continuing rise of global living standards and the fall in the share of the world population living in extreme poverty. The claim of progress is correct as long as it is not taken to be a claim of perfection".

It is not less true that the ethics of global capitalism should not be assumed only by economics. With regard to Weber's considerations, the stereotypical application of canon law in civil law has a major influence on the economy (Weber, 1998, p. 208). Considering that every civilization is based on its own canon law (Hindu, Mosaic, Christian, Islamic, Confucian), with applications in its legal rights, it is hard to ask from the global capitalism, after just a couple of decades, global ethical and moral effects. The only ethical role of economics is to achieve a fair distribution and redistribution of wealth by principles related to individual's social contribution. Economy has no other means of spreading the wealth besides its rational levers, which are basically fair; the rest depends on societies and individuals to be moral and altruistic and to determine the global capitalism to make more good than bad.

Conclusions

The world has always been naturally interdependent, and thus the economic globalization has been a matter of course that would have sooner or later happened anyway. An ethic of universal solidary responsibility, i.e. intersubjectively valid, it

seems now both necessary and impossible. If we generally adopted the neoliberal economic paradigm, and so the economic mainstream nowadays is based on Adam Smith's *Wealth of Nations*, we must not forget that Smith wrote as well a theory of moral sentiments that is not antithetical to the first, legitimizing it. Even if the market may be neutral in its intention, it should be more carefully regarded if it encourages such personal features as greed, relentless competition and opportunism. Smith opens his *Theory of Moral Sentiment* stating that "how selfish soever man be supposed, there are evidently some principles in his nature, which interest him in the fortune of others, and render their happiness necessary to him, though he derives nothing from it except the pleasure of seeing it" (Smith, 2006, p. 4).

For a more ethical global capitalism it is required a change in the attitudes and practices of particular individuals and firms which must be at the core of a more responsible global capitalism. Edmund Burke stated two centuries ago, that "civil liberty could only prosper if individuals will 'put moral chains on their appetites' and this will happen only when the society will be aware of the importance of self-restraint, tolerance and the development of character, and that moral responsibility is the most personal and inalienable of human possessions" (Burke cited in Dunning, 2001, p. 367). Therefore, being happy is not destiny, but rather a consequence of our choices to behave towards others. In the Era of Globalization, the biggest challenge will be, as Brown and Lauder (2001, p. 284) had stated, to develop a social solidarity based more on the reflexivity of individuals who recognize that their quality of life depends on cooperation with others rather than relentless competition, being thus a challenge for us to build decent societies for all.

What post-modernity teaches us is that the order and small systems that we create in the world are as fragile, arbitrary and insecure as their alternatives. Beyond utopias and distant hopes, it always remains a reality of a complex human being which cannot be suppressed. Global capitalism, seen from a postmodern perspective, is essentially a process of placing moral responsibility where it belongs, and that is among the individuals' personal concerns.

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THE ROLE OF ACCOUNTING IN THE EVOLUTION OF THE ROMANIAN ECONOMY

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Abstract

Accounting has a very important role in offering useful information to the interested users, and they are able to take decisions based on this essential information.

A very important part of the development of Romanian economy is represented by increasing the quality of the financial-accounting information. All these, along with increasing the quality of the fiscal statements, by offering multiple services of high rank to diverse trading companies.

With a view to achieving an efficient level of comparability and transparency, the accounting information needs to be detailed and explained properly.

Key-words: *users, financial-accounting information, fiscal statements, comparability, transparency, development*

JEL Classification: M₄₁

1. Introduction

Accountancy is a component of economic informational system at the same time with the market economy development and its complexity increase, so that this can give the information necessary for taking decisions by the managers of the economic entities or can reflect correctly their patrimonial situation but also the financial-economic results.

The main data source of the economic informational system is accountancy. The founder of accountancy is considered Luca Paciolo, who in the year of 1494 published the work *Summa de aritmetica, geometria, proporzioni et proporzionalita*. The method of registration in double entry is presented in one of the chapters of the previously mentioned work, the chapter named *Tractatus de computis et scripturis*.

Accountancy assures:

- gathering and processing of information regarding the economic position of one economic entity;
- substantiation of principles, method and techniques of obtaining, processing, analysing and using of accounting information, of organizing and managing of accounting practice.

Specialized literature consulted

The study is based on the updated legislation and economic press regulating the accounting activity as well as on specialized literature. Regarding specialized economic literature, I had in view poopers comprising theoretical and practical elements that are generally valid in time.

2. Objectives of accountancy

Accountancy is a system of information subject to some conventions and norms socially definite and it can exist or develop itself only in human societies which has drawn a high enough organizational degree (Michel Capron, 1994).

It reflects and coordinates, on basis of a proper system of information, the patrimony of economic entities, autonomous from the administrative point of view, in quantified expression, the modifications which take place as a result of the processes of provisioning, production and sale, as well as the results obtained in the economic activity (Gheorghe Cretoiu, Ion Bucur, 1994).

In Romania is used the dual organizing concept. Thus, at the level of an economic entity we can distinguish the two components of accountancy, namely the financial accountancy and administration accountancy.

The main objective of financial accountancy is the one of giving information concerning the financial position, the performances and modifications of the financial position. This information is extremely important both to the economic entity management and the external user, as:

- potential and present investors;
- employees of the economic entity;
- creditors of the economic entity;
- suppliers and other creditors;
- clients of the economic entity;
- state institutions and other authorities;
- public.

Each of the categories of users previously mentioned uses the information presented by the financial position for fulfilment of different needs. For example, the state institutions and other authorities are interested in resources assignment and implicitly by the entities activity. These solicit information especially with a view to determine the fiscal policy, as well as basis for incomes calculation and of other statistic indicators.

The administration accountancy supplies the accounting information which is quantified, processed and transmitted with a view to using it by the management of the economic entity. Among the main objectives of this component of accountancy we can distinguish: analytical calculation of costs and results, internal budgeting of economic activity; administration control regarding the pre-established costs and deviations from these costs.

According to the accountancy law, at the level of an economic entity the accountancy is organized and managed, as a rule, in distinctive departments, managed by the economic director, chief accountant or other person authorized to fulfil this position. These persons must have superior economic studies. The accountancy can be organized and managed also on basis of service granting contracts in the field of accountancy, concluded with physical and/or juridical persons, members of the Chartered Accountants and the Authorized Accountants Body of Romania (CECCAR).

The accountancy subject of study is represented by the economic entity patrimony. Patrimony can be defined as being the assembly of rights and liabilities with economic contents that belong to an entity.

The accountancy theoretical, scientific and practical limits are extremely complex both under the aspect of economic phenomena covering and of their analysis. The accounting system of any economic entity is subject to some accounting rules, principles or methods, these resulting from the accounting-financial practice. The importance of the valuation rules (valuation at entry, valuation at inventory, valuation at balance or valuation at exit) or accounting principles is unquestionable.

The accountancy objective of an economic entity is the one of supplying financial situations (documents of synthesis) that offers a precise image of the patrimony, financial state and of the result with the aim to supply useful information to the assembly of users, when these take economic decisions.

3. The role of the Annual Financial Situations

In Romania the annual financial situations include five or three components according to the fulfilment or not of some conditions foreseen in the Order of Public Minister of Finances number 3.055/2009 (conditions concerning at the turnover, total assets, number of employees). In the extended form the five components are: balance, loss and profit account, position of proper capital modifications, position of treasury flows and explanatory notes.

The annual financial position presents the following qualitative characteristics:

- intelligibility. An essential quality of the information supplied by the annual financial position is that of being easy to understand for users;
- relevance. Information are relevant when influence the economic decisions of users, helping them to estimate the past, present or future events, to confirm or to correct the previous valuations;
- credibility. Information is credible when this does not include significant errors, this is not partial and users can trust that it represents correctly what they proposed to represent or what it is expected, reasonably, to represent. Information must represent faithfully transactions and other events, it must be neutral, that is, deprived of any influences;
- comparability. In order to identify the tendencies in the financial position and the performances of an economic entity, users must compare during the time the information supplied by the financial positions. An important consequence of the information quality of being comparable is that users be informed about the accounting policies used in financial positions elaboration and about any modification of these policies, as well as about the effects of such modifications.

Information is considered as being relevant and credible when:

- information is operative for the decisions taken by users;
- benefits that result after receiving the information exceed its cost;
- it is established a balance between the qualitative characteristics of financial information.

4. The role of the accounting at the level of economic entities

One of the accounting principles that define the importance of accountancy at the level of economic entity and, by extension, at the level of the whole Romanian economy is the principle of prudence. Prudence is the reasonable estimation of the facts so that to be avoided the risk of transfer upon future, of present uncertainties, liable to entail patrimony and the results of economic entity. Prudence consists of accounting of any probable loss and in non-accounting or the expected profits, even if these are very probable. Thus, according to the prudence profit is allowed the overestimation of the elements of assets and of incomes, respectively underestimation of the elements of liabilities and of expenses, taking into account the depreciations, risks and possible losses by the development of the present or previous exercise activity.

Accountancy appeared from the necessity of answering in informational and decisional plan at the problematic of administration of the economic values at the level of an entity. The economic entity represents the sphere of action in which the accountancy takes complete forms, of supervision and control of resources, expenses and results.

One of the informational interests honoured by accountancy is the fiscal one. The problem of conciliation between accountancy, as representative of the economic entity interest, and the fiscal interest, as representative of the state, has always risen. Accountancy cannot be parted from taxation. The fiscal provisions must be observed totally, and the amounts representing taxes, fees or shares at different social funds must be correctly established, correctly registered in accountancy, declared at the fiscal competent bodies and afterwards paid.

On world plan, as a result of the increase of the volume of the operations made by the Romanian entities with the foreign countries or as a result of the increase of the volume of economic operations between different countries they are continuously trying the accountancy modernization, being aimed the following objectives:

- improvement of accountancy organizing and managing in different countries;

- better understanding of accounting information and their control;
- comparison of accounting information in time and space.

All these as a result of:

- needs of economic information of the entities that form the economy of each country;

- specific or different sectors of activity;

- doctrinal evolutions of the accounting theory on national and international plan (Iacob Petru Pântea, coord., 1995).

At the level of economic entities are organized structures of internal control. Thus were formed commissions of censors and/or commissions of internal audit.

Commission of censors and/or commission of internal audit assure the verification of the legality of economic operations at the level of a patrimonial entity, as well as the observance of any provisions, norms, accounting rules. The

fundamental element of the control in this case is represented by the accounting system, the mode in which this answers better the needs of the economic entities managing.

The external audit, the examination by an independent and competent person of the fidelity of the financial and accounting representations, leads to probity and credibility of the economic transactions.

The accounting-financial audit stands for:

- an independent examination of annual financial positions;
- a contribution of credibility of the information presented in the annual financial positions;
- a critical review of estimation of some determined financial positions;
- a research or methodology applied exclusively by the professionals in audit, members of Chamber of Financial Auditors of Romania.

By executing an internal control of a faultless quality and of external audit, whose result is the expression of an opinion without concerning the annual financial positions of an economic entity, is assured a growth of the information credibility so necessary to different categories of users with beneficial effects in chain.

With a view to the increase of the economic entity performances is imposed the existence of a system of internal control that includes the following:

- a plan of organizing that foresees a separation of different close functions and of proper responsibility;
- a system of authorized procedures and well adopted registrations, for supplying a reasonable accounting control upon assets, commitment, production.

Sound and tried methods are to be followed for achievement of different functions by each service foreseen in organization of an economic entity (Mircea Boulescu, Marcel Ghiță, 1999).

The professional accountants watch and act by their quality services, offered to the economic entities, to satisfy the market and the business environment exactingnesses and the public interest.

As part of the accountancy are promoted international practices at high level, that regulate the activities and the behaviour of the professional accountants or develop and consolidate the accounting profession with the aim to serve the public interest.

With the aim of development of the economic entities as part of the Congress of Accounting Profession, from Romania, whose works developed at Bucharest, in September 2010 were drawn some ideas, such as:

- more stressed use of the values specific to the systems of accountancy based on prudence and on preventive actions;
- increasing the role of the accounting profession in achievement of financial reforms from the public sector, in supporting the government for reporting of some high quality information;

- insurance for small and medium industrial units (IMM) of a real and efficient market on the measure of their place in the world economy;
- elimination of the tendencies of politicization and of nationalization of some activities of the accounting profession;
- undertaking of some actions for extension of ethical principles elaboration and application in all component segments of the accounting profession and in all the fields of activity of the professional accountants;
- raising of the accounting-financial information and of fiscal statements by offering services integrate to economic entities;
- orientation of the middle and university economic education on modern coordinates, with a view to preparing and perfecting the specialists from the field of accountancy;
- increase of the expert accountant contribution to the society use, on the line of fraud and evasion control, in the direction of defence of economic interests in front of any abuses, especially bound to fiscal legislation interpretation (*Declaration of the Congress of Accounting Profession in Romania, 2010*).

The quality of accounting information is extremely important in the activity of planning, decision and control. Also extremely important is the role of the professional accountant in „modern industrial units, as to it are entrusted for leading and harmonizing the numbers regarding the movement of an industrial unit, the means and resources, that, ordered on certain categories, by a well-established scheme, and can demonstrate at a certain moment the position – however complex – of an industrial unit (Toma Marin, 1993).

In time, the role of accountancy has advanced from the technique of registration to means of control and proof element. In the accounting activity an important role belongs to the accounting deontology. This stands for the assembly of rules and usages that regulate the relations between the professional accountant, the one who produces the accounting information and its user. The professional behaviour is characterized by:

- integrity;
- objectiveness;
- independence;
- professional secret.

Accountancy has not risen, and especially, has not advanced, but in the conditions in which the rareness of the resources imposed an efficiency greater and greater of their assignment with the view to satisfy the human beings alternative necessities of information with a view to taking the best decision or as has been inferred over five hundred years, at least for evaluating the impact of taking decisions. The accounts are only a written expression of the business order that the economic entity has, its leader knowing exactly if the business goes well or badly (Mihailciuc Camelia, 2006).

The information supplied by accountancy has a special impact upon the economic, political or social sides of the country. The existence of a rigorous accountancy leads to the efficient engagement of resources which an economic entity owns as well to the increase of the entity credible aspect in the concurrence economic environment in which it develops its activity.

Thus the accountancy by prudence, order and rigour, leads the economic entity to a continuous development.

The professional accountants are connected at the economic reality details, being conscious about its evolution consequences in social, institutional plan and upon the people. The essential attributes of the accountancy are represented by the correct reflection of the financial-economic reality and its social effects. Owing to its importance one can affirm that the accounting science stands for an international business language (www.imm.romania.ro).

The fundamental premises of the trust in the business developed by the economic entities is the increase of quality and financial transparency, of the activity of accountancy and audit. As the resources are diminishing, and the needs grow, the role of accountancy also grows. An entity has as main objectives the profit achievement, activity continuity, the right of property and control upon some higher economic resources.

On the conditions of international economic crisis the importance of the internal control, component of accountancy, on the line of infringements, shortcomings and deficiency prevention, grows continuously.

According to the Order of Minister of Public Finances number 3055/2009 for approval of the accounting Settlements corresponding to the European directives, the internal control has as objectives the assurance of:

- conformation of operations with the legislation in force;
- application of decisions taken by the entity leadership;
- good functioning of entity internal activity;
- efficient use of resources;
- reliability of accounting and financial information;
- increase of economic entities operations efficiency.

Like the internal control, the accounting control is based upon a system that must contain elaboration and application of the policies and proceedings in the field, as well as of the supervision and control system.

As we sustained in this work the role of accountancy consists more and more in offering to the users some information that allow them to take decisions that they consider necessary. On present conditions, characterized by economic crisis persistence, the role of keeping accountancy at the exact value must not be neglected. Accountancy at the exact value is appreciated by investors, being considered the best manner of financial instruments valuation. However, it is imposed the improvement of accounting regulations in this field and elaboration of some new supplementary recommendations. The level of transparency and comparableness of the accounting information is not touched by simple application of the accounting standards, but supposes explanation in details and explicitness as much as possible, of the information supplied by the annual financial situations, drawn by any economic entity.

The fact of making optimum any economic activity imposes a more precise knowledge of all the economic processes and phenomena from a country.

The criterion of accountancy performance constitutes the devoted image, the measure in which this renders the objective reality, by a complete and pertinent information upon economic facts and processes, expressed in monetary standard (Horomnea Emil, Rusu Georgiana-Alexandra, 2009).

According to the French concept, the devoted image is given by the sum of the elements representing sincerity and regularity.

Sincerity supposes application with good faith and professionalism of the accounting standards and proceedings, depending on the knowledge that accountants normally must have upon economic reality and condition of the market.

Regularity supposes that any information regarding the financial state of the patrimony and of results is obtained by observing the rules and proceedings in force, starting from the basic principle. Conformity with rules means strict observance of the provisions imposed by laws, regulations and usages.

In the last period, in Romania, it was stressed a more and more marked accent on small and medium practices (SMPs), these having an extremely important role in supplying accounting services and business consulting for the small and medium enterprises (SMEs). SMEs constitute the overwhelming majority of enterprises from the private sector of developed and in course of development economies.

The small and medium industrial units are represented by:

- economic entities that have a number of employees smaller than 250 (1-9 for microenterprises; 10-49 for small enterprises; 50-249 for medium enterprises);
- economic entities have an annual business figure that does not exceed 50 million euro and/or an annual balance that does not exceed the sum of 43 million euro.

5. Conclusions

The motivation and the causes of accounting professionals use as business consultants by IMM are based on:

- professional accountants competence;
- trust generated by the professional accountants;
- professional accountants capacity to react upon the frequent legislative changes.

The most important factors that characterize the business environment, in permanent change are:

- accounting sector consolidation, following the concentration increase upon merging, purchasing and decline of the practitioners in unique partnership;
- increase of services supplying by the great practices and of the second level for SMEs;
- change of the regulation environment in which acts SMEs, registering a certain degree of relaxation in need of financial statutory audits and an increase of conformity afferent to this;

- change of SMEs nature (*The role of small and medium practices in supplying of business consulting for small and medium enterprises*, a booklet edited by CECCAR and IFAC April 2010).

Taking into account the matters emphasized in this work it is considered that the role of accountancy in Romanian economy evolution is essential, both in the period of economic increase, and especially in the period of economic crisis.

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II. IMPROVING THE METHODOLOGY OF ECONOMIC STUDIES

INSTITUTIONAL CHANGE AND INTER-INSTITUTIONAL COOPERATION – CHALLENGE AND OPPORTUNITY FOR ECONOMIC GROWTH AND INNOVATION

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Abstract

The knowledge-based economy/society challenges and changes organisations, institutions and job contents generated by new requirements and the increasingly complex and dynamic environment in which they are compelled to act.

Institutions and organisations, public or private, need to adjust rapidly and changes in their own action sphere and in environments surrounding them for ensuring sustainability, surviving and competitiveness. Assessment tools and analytical indicators should be developed as institutional analysis will become increasingly relevant for economy and society. Innovation turns into one of the key-concepts also for institutions and institutional change in increasing efficiency and effectiveness.

Key-words: *institutional change, inter-institutional cooperation, economic development, social cohesion, innovation*

JEL Classification: D₈₅, H₈₀, O₁₁, O₃₁, O₃₃

Preliminary considerations

In the sociological, political and economic theory a fine cut is made between *institutions and organisations*: the first are considered to represent the set of norms, rules, constraints to which two or more people adhere in their roles within society, they are the basic conventions governing the relationships between the respective individuals, while *organisations* are the expression of collective goals embodied either in political, economic, and education bodies, or in various social groups [Jonsson, 2007]. The daily practice eludes this distinction, using the terms interchangeably, with the outcome of unclear perspective in efficiency and performance evaluation.

Yet, as North already underpinned, with respect to economic performance, institutional change plays a decisive role in rendering efficiency and growth potential to economy [North, 1990] and with respect to innovation in various economic sectors [Halge&Meeus, 2006]. Thus, organisations must find the right mix between “changing” and “learning” as to ensure stability while keeping pace with developments. More specifically, a “transaction cost for the functioning of economic markets” still needs to be identified from the institutional perspective

and the institutional change analysis should be integrated into political and economic analysis for supporting performance of a country's economy and society.

While organisations can be evaluated based on overall performance, their capacity to learn and to change attuned to external influences, the institutions, in their clear-cut meaning of "arrangement between two or more individuals with respect to norms, procedures, roles played" are harder to assess/evaluate.

Institutions are the 'rules, constraints and control over human interactions from political, economic and social viewpoint'. They are structures playing a decisive role at political, economic and social level with respect to market performance and welfare, while organisations are forms of associations based on contracts of social, economic groups, etc.

Increasing institutional efficiency and effectiveness are research topics at international and European Union level, as knowledge-based society/economy, and globalization are dynamic processes which challenge the 'traditional agreements' of the institutional setting and increase the role of cooperation and collaborative approaches. At European Union level researches in the field are directed according to their focus on three major levels: *inter-level* – cooperation between the EU institutions and public authorities of the member countries; *inter-institutional* – cooperation between EU institutions and *intra-institutional* – the internal politics and relations in the EU.¹

These differentiations, more political in nature and adopted by evolutionary economics are decisive when used in international contexts. They maintain relevance even when limited to a country-based analysis regarding the functioning and efficiency of institutions/organisations. This type of analysis should raise questions about the interest in and ability to cooperate of institutions and organizations at national/regional/local level, and possible measurements of the degree and efficiency of cooperation. This approach could contribute to increased institutional coherence and performance, facilitating fine-tuning to European-wide cohesion and convergence.

Inter-institutional/organizational cooperation in Romania

In Romania, *institutions* are defined as public bodies developing activities of social, cultural or administrative nature or activities with international relevance. *Organizations* are defined as forms of social/collective relationships according to legal norms on activity fields. In both understandings of the term, the issue of cooperation is an opportunity and challenge at the same time.

The past two decades of in-depth reform and transition to market economy in Romania brought about changes within institutions and organizations, and new ones were created.

These developments are relevant from economic viewpoint, as the way in which institutions and organizations work, their activities' efficiency influence the

¹ Thomas Christian, *Intra-institutional politics and inter-institutional relations in the EU: towards coherent governance?*, in "Journal of European Public Policy", 8:5, October 2005.

markets' functioning; whether financial, labour, industrial, services' or trade markets; national and individual welfare are often related to their overall performance. Thus, creating good relationships and cooperation tools between institutions/organization and between them and society at large can be decisive when aiming at a dynamic development such as the one triggered by the knowledge-based economy and society. If Romania as EU member country is to adhere to the targets of the knowledge-based economy and society and attain the objectives of *Europe 2020*, then inter-institutional/organizational cooperation and relations shall have a significant role to play.

Several difficulties requiring consideration and tackling are related to: legal framework; organisational structures; different formal and informal practices of national/EU institutions; very specific decision-making procedures at EU level; the institutional and organizational human capabilities, their capacity to adjust and adopt rapidly to externally triggered changes; their innovative capacity, as they evolve in a complex, dynamic environment of increasing demands and expectations.

The overall economic performance and growth in Romania, social cohesion at national and European level are strongly influenced by outcomes delivered by institutions and organizations. The current dynamics in economy and society require from them increased cooperation capacity, integrated, streamlined procedures, rules and protocols for ensuring the functioning of political, economic and social levels.

The inter-institutional/organisational cooperation capacity needs to be translated into measureable parameters. Process, output and performance indicators need to be developed for their own and inter-institutional performance.

In Romania, public institutions, specifically public administration institutions still need to agree on an assessment toolkit, in accordance with the common assessment framework and tools developed at EU and international level. Already toolkits covering main aspects regarding financial and human resources management, government policy making, service delivery and initiative/leadership capacity are in place. Hence, some simple, useful tools that would require further assessment and improvement regarding their robustness could be categorised as follows:

- *For financial management*: the involvement/participation degree to the yearly budget determination; compliance/failure to comply with budgetary limits; half-yearly/yearly budgetary allocations' efficiency with particular emphasis on investments: with impact on society, dedicated to institutional improvement, increasing the skills', and 'soft skills' level of the staff; openness degree and flexibility in cooperation, etc.

- *Human resources management*: recruitment policies, clear job descriptions; clearly defined job contents and responsibilities, tasks, delegation and attributions reach; overall and individual evaluation sheets based on measurable performance indicators, etc.

- *Policy-making*: the consultation process criterion interpreted based on items for indentifying whether inter-institutional/organisational consultations take

place about policy proposals; consultations' effectiveness, i.e. delivered outcomes; outcomes' relevance/impact; number of agreements reached transposed in status and process indicators, etc.; developing instruments for qualitative measurements. In this context, frequency of inter-institutional, for instance inter-ministerial cooperation should not be regarded as a possible indicator, as not quantity but quality is relevant.

– *Services delivered*: measuring satisfaction/non-satisfaction degree, timeliness and availability of information to 'customers', dissemination ways (to other institutions, organisations, general public) etc.

– *Initiative/leadership capability* relates to change adjustment capacity, negotiation and compromise ability to reach agreement at intra- and inter-institutional level; overcoming resistance inside and outside the institution's setting.

A useful example about the uses of this type of assessment framework is also indicative for inter-institutional cooperation. For brevity, reference shall be made only to the aspect of early school leaving prevention in the Romanian institutional setting.

Policy process refers to passing education and/or correlative or related policies and measures that would prevent early school leaving rate increase.

Human resources: teachers 'in the first line' dealing with school absenteeism leading to early school-leaving are selected based on their skills, more specifically 'soft' skills in approaching 'problem-children' and families; they are asked to define what support they think as required. Expected outcome: clear tasks for school and class teams involved in observing and preventing absenteeism and early school leaving; decrease of absenteeism by 20% by the end of the school year and diminishment of early school leaving by 10%².

Consultation process: relevant institutions to be involved in the process. These institutions covered a wide range from proximity police to health, labour-related institutions' and town-hall representatives. The challenge: the inter-institutional cooperation process of institutions for creating a well-designed operational framework for effectively preventing increases in the early school-leaving rate. All relevant partners/stakeholders sharing the common goal stated by the policy have also own agendas and interests that need to be fine-tuned in developing policies, actions and measurable outcomes. Expected outcomes were: formal protocols; common regulations, procedures dealing with absenteeism and early school leaving. The inter-institutional consultation process decided on roles and attributions of each institution involved.

Financial management: estimates were made considering the two most relevant aspects: the government budget allocated for families with children facing difficulties and possible alternative financial resources to aid children in danger of early school leaving due to their economic/social circumstances.

Services delivered: an integrated monitoring system for school absenteeism and early-school leavers. Creating specialised centres for children and teenagers in

² Percentages are hypothetical.

danger of, or who have already abandoned school for various reasons to assist in sustaining the policy.

Initiative/leadership: the initiative and leadership was assumed by two of the involved stakeholders and the innovative approach was present in designing a single nation-wide monitor of absenteeism and early school-leaving based on economic and social criteria.

The project registered only partial success and highlighted the weaknesses of the inter-institutional cooperation in Romania. The most relevant were both objective and subjective in nature: institutional settings provided for and required specific legal frameworks, rules, regulations and procedures; timeliness delays in concluding legal protocols, joint-orders; different institutional approach-angles, etc. One of the documents is still in revision process even though the project was finalised in the winter of 2010. Governmental and local authorities lack of financial support and corresponding budget, even if the other half was covered by stakeholders. Yet, the subjective facets were even more challenging: they were related to institutional and organisational culture, resistance to inside and outside change, the perception of the roles required and the absence of motivation due to absent incentives for the main actors. The debates between stakeholders revealed that assuming responsibilities, making-decisions and overcoming formal, informal and non-formal barriers in cooperation would require sustained training at management and executive levels now and in the future, to help personnel understand the role and importance of cooperation at intra- and inter-institutional level.

Even if the example is not directly related to economic outcomes, it is indicative of how inter-institutional cooperation success or failure can impact on economy: the school-leavers of today are the future unskilled or low-skilled workers. This implies losses of valuable human capital, further costs and investments for their training later on in life, the risk of low-paid jobs and increased social costs for ensuring the minimum social support network during their entire life-span.

Early-school leaving and absenteeism are two of the indicators referring to educational and correlative policies' performance and can aid in identifying financial, labour market, health and social policies that need reviewing in order to diminish this phenomenon and to improve the overall economic and social framework as most of the early-school leaving reasons relate to economic-social circumstances of children and their families.

The brief case-study was intended to highlight the way in which inter-institutional cooperation can improve policies not only in particular cases, if successful, but also provide information, valuable data and insights for policies, measures and actions in other correlative or related fields. This type of cooperation generates positive externalities, opportunities for the creation of new jobs, increases institutional skills, efficiency and effectiveness, and creates premises for improved institutional dynamics and enables innovation inclusion in the approach.

Instead of conclusions

Due to Romanian history and traditional perspective institutional/organizational change has been done at a rather slow pace, and while inter-institutional/organisational cooperation has been formally introduced very often circumstances show malfunctions in practice.

The knowledge-based economy and society depend strongly on technological progress, innovation capacity, hence digitalisation and innovation impact on institutions by determining the so-called 'institutional discontinuous change'. Usually, institutional change is perceived as discontinuous as the set of rules, norms and regulations and sanctions/constraints defining the institutional setting hinder quick change/adjustment. The traditional institutional analysis fails to identify possible analytical indicators that could be used for assessments in this respect. Still, qualitative indicators regarding their efficiency could be developed by using measurable data provided by institutions based on budget, available human resources, policy and activity outcomes developed for their specific intervention field.

One important issue for further research to improve assessment tools for institutional performance, including inter-institutional cooperation is related to the coordination modes of institutions in Romania and at European level.

The coordination modes refer to the various kinds of hierarchy determined by institutions involving various kinds of actors from market to non-market ones, according to the institutional bundle of rules. These coordination modes have relevance for three major disciplines: economics (markets), political science (state) and sociology (organisations, associations and inter-organizational relationships) and highlight the importance of the modes in policy initiatives involving deregulation. At the same time, they indicate which of the modes are fostering more transfer of knowledge and generate innovation and allowing for accessing tacit knowledge. Starting from these premises, attempts can be made to develop assessment frameworks for institutions, institutional change and inter-institutional cooperation that would incorporate also analytical indicators to showcase the critical points for economic/social performance or lack thereof.

Apparently, non-market coordination modes seem to be broader and more supportive for collective learning and knowledge-transfer involving a wider set of actors, and encouraging institutions to improve their activity. Therefore finding the right balance between market and non-market modes could be stimulating increased efficiency. On the other hand, the market coordination mode while opposing abrupt change of institutions' could be more efficient in stimulating ground-breaking, frontier-type innovation based on provided incentives [Hage&Meeus, 2006].

Romania, in the aftermath of the economic-financial crisis could take advantage of the structural changes occurring within the European and world economy and foster a 'hybrid model' of smoother and sustained inter-institutional and inter-organisational change which encourages innovation as factor impacting on inter-institutional/organisational change. In turn, inter-institutional/organisational change could become a determinant factor in enhancing the national innovation system and thus increasing economic competitiveness of the country.

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COMPARATIVE ASPECTS REGARDING SAFETY AND HEALTH AT WORK IN EUROPEAN ENTERPRISES

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Abstract

Safety and health at work has, according to the European policies, a key role both in increasing employment, including through the prevention of premature withdrawal of employees from the labor market and in increasing competitiveness and economic performance of European enterprises. The paper makes an initial brief presentation of the main provisions of European and national policies on health and safety at work, then continues with an analysis of statistical data regarding the situation of health and safety at work for employees in EU-27. A special attention is paid to detailed analysis of recent data, from the National Institute of Statistics, on the situation concerning occupational accidents and professional diseases in our country, including factors that determine them, depending on sex, residence area, age group, economic activity, number of absence days due to health problems caused or aggravated by work.

Key-words: workplace, health, safety, accidents, professional diseases, stress

JEL Classification: J₂₈

Introduction

From the perspective of EU concerns, the issue of improving working conditions and ensuring health and safety at work appears as an independent subject for the first time in the European Council Directive on the safety and health of workers at work, in July 1989. The European Framework Directive on safety and health at work (European Council, 1989), adopted in 1989, represented an important tool in improving occupational safety and health: it guarantees minimum safety and health requirements throughout Europe while Member States are allowed to maintain or establish more stringent measures.

Subsequently, numerous other directives have been formulated, which take into account a number of issues regarding safety and health, specific economic sectors.

In 2007, the "Community strategy 2007-2012 on health and safety at work" was developed, which aims for a 25% reduction in the total incidence rate of accidents at work by 2012 in EU-27 (European Commission, 2007, p. 3). In the

vision of European policies, health and safety represent determinant elements of employment and economic performance and competitiveness of European enterprises. Indeed, the lack of effective protection of health and safety at work can result in absenteeism, due to workplace accidents and occupational illnesses, and can lead to permanent occupational disability. This not only has a considerable human dimension but also has a major negative impact on the economy. The enormous economic costs of problems associated with health and safety at work inhibits economic growth and affects the competitiveness of enterprises in the EU (European Commission, 2007, p. 2).

Modern organization of labor, together with health and safety at the workplace, can contribute greatly to increasing the welfare in the workplace, maximizing the ability of each employee to work and preventing early withdrawal from the labor market.

National and EU policies should contribute to creating work environments and occupational health services to enable workers to participate fully and productively in working life until old age. Inequalities between women and men, both inside and outside the workplace can affect health and safety of women at work and thus have an impact on their productivity, and therefore gender equality should not be neglected.

Enterprises which invest in active prevention policies to protect the health of their workers obtain tangible results: reduction in costs arising from absenteeism, reduction in staff turnover, greater customer satisfaction, increased motivation, improved quality of products and enhanced enterprise image (European Commission, 2007, p.13)

The development of awareness may also be reinforced, particularly in SMEs, by providing direct or indirect economic incentives for prevention measures; such incentives can include a possible reduction in social contributions or insurance premiums depending on the investment made in improving the working environment and/or reducing accidents; economic aid for the introduction of health and safety management schemes etc. (European Commission, 2007, p.14).

In our country, legislation on health and safety at work and in general working conditions closely harmonize with EU legislation, focusing on legislative measures aimed to avoid risks in particular economic sectors that require physical labor. Thus, an official document essential for establishing the legal framework for ensuring health and safety at work for employees, at national level, is the Law 319/2006 regarding the protection and safety of work, which aims to promote improving of safety and health at the workplace for workers, establishing "general principles regarding the prevention of occupational risks, the protection of workers" health and safety, elimination of risk and accidents factors, information and consultation of workers, balanced participation according to the law, training of worker and their representatives, and general directions for implementing these principles" (The Romanian Government, 2006).

Also in *Romania's National Development Plan 2007-2013*, elaborated by the Romanian Government in 2005 (,the fundamental instrument by which Romania will try to recover as quickly as possible the socio-economic disparities towards the

EU, the specific concept of the European policies of economic and social cohesion, which will guide and stimulate socio-economic development of Romania under the EU Cohesion Policy” – The Romanian Government, 2005, p. 4), regarding the current situation, there is the a special paragraph, in "Employment" chapter, devoted to health and safety at work. The authors of report consider that there are still in our country working conditions with occupational risks and a risk prevention culture underdeveloped in enterprises, also there is lack of statistics on occupational diseases, currently there are no statistical data than on new cases of occupational diseases.

Statistical analysis regarding the health and safety at work in the EU as a whole

According to statistics published in 2009 and 2010, which have as source Eurostat (Eurostat, 2009, p. 2-3), regarding accidents at work in 2007, 3.2% of employees in EU-27 had an accident work in the previous year, which corresponds to 7 million employees.

Approximately 10% of those accidents were road accidents occurred during work time (traffic accidents occurred during work time have been reported at 0,3% of respondents, which corresponds to 0,67 million people in the EU-27, of which most men with a high level of education – Eurostat, 2010, p. 27-28). Men had a higher proportion than women among the injured, and accidents occurred most often in younger age groups (3,5% for employees of 18-24 years). Overall, accidents were more common in agriculture, manufacturing and construction, standing out a clear gender difference: among men the highest risk is found in the sectors of construction, manufacturing and agriculture, while the largest risk in women is found in health and social work sectors and also in hotels and restaurants. As regards the type of occupation, skilled manual workers were more likely to suffer accidents; in addition, work-related characteristics that have increased the likelihood of an accident were working in shifts (including nights) and atypical program (in weekends). Regarding the types of illnesses suffered in workplace accidents, injuries and superficial wounds, dislocations, sprains and fractures are the most common types of injuries. For workers with workplace fatalities, multiple injuries are most often recorded.

The consequence of these accidents is first of all the absence from work – 73,4% of people who have suffered an accident at work have had sick leave of at least one day, and 22% over a month sick leave; of all people aged 15-64 years who worked in the past 12 months, 2,3% had sick leave of at least one day because of an workplace accident (i.e. 5 million people in the EU-27).

The frequency of accidents at work fell slightly from 3,5% in 1999 to 3,2% in 2007, among people who worked in the past 12 months in European countries; this decline is attributed mainly to the fall of accidents among men (from 4,4% in 1999 to 4,1% in 2007), unfortunately there has been no decrease in the share of accidents among women (2,4% in both years). The rate of accidents declined for most age groups between 1999 and 2007, but increased slightly for young employees, aged

between 15 and 24 years – from 3,8% in 1999 to 4,0% in 2007 (Eurostat, 2010, pp. 31,33,34).

At the EU level, several studies on working conditions have been conducted, especially by the European Foundation for the Improvement of Living and Working Conditions, the latest research on working conditions within the EU being the Fifth European Working Conditions Survey: study was conducted during January-June 2010, and first results were published in November 2010; in addition, this latest edition makes a comparative analysis of survey results over the last ten years. According to this research, European workers are exposed to physical risks as well as 10 years ago, for example 33% of workers carry heavy objects for at least a quarter of work time, while 23% are exposed to vibration, numbers unchanged from 2000. Almost half of employees (46%) work in tiring positions or that cause pain in at least one quarter of the time, and repetitive hand or arm movements are a work feature for more Europeans than 10 years ago. The labour of some workers can present other types of risks: the working environment can be noisy, too hot or too cold, or contain materials that are pathogenic – in 2010 nearly 30% of the EU-27 workers were exposed to loud noises for at least a quarter of their work time, a figure unchanged since 2000; 15% of workers breathe smoke or dust or manage dangerous chemicals, also in the same proportion as 10 years ago (Eurofound, 2010a, pp. 6-7).

Also, experiencing a higher work intensity (for example, very high speed work to meet very short deadlines) has a strong negative effect on employees. Labor intensity has increased in most European countries over the past two decades, from 50% of employees said they had very short deadlines at least a quarter of their work time in 1991, to 59% in 2000, to 63% 2010 (Eurofound, 2010a, p. 6).

Stress at work, a phenomenon caused by increasing both the number of hours spent at workplace, as such as the work intensification (pressure due to the imposition of strict deadlines), is associated with cardiovascular diseases, muscular, immune problems, especially mental problems (anxiety and depression). The highest stress levels of employees were reported in Greece (55%), Slovenia (38%), Latvia (37%), Romania and Bulgaria – 31% (European Agency ..., 2009a, p. 9). The largest number of employees who suffer from anxiety due to stress at work is found in education, health and social work, and in public administration.

Stress, depression and anxiety as the main health problem caused by work is mentioned more often than women (17%) than men (13%), more often by those with a high level of education (26%), followed those with a secondary education (12%) and those with low education (10%); the highest stress levels are noted in middle-aged employees (35-44 years), then decreased with increasing age; in addition, these illnesses occur more often in workers in larger firms (over 10 employees), increasing with increasing number of employees in the company where employee is working in. Employees suffering from stress, anxiety, depression take sick leave due to these diseases for longer periods than those with skeletal and muscle system problems – 25% to 19% (Eurostat, 2010, pp. 67-69). Stress at work can have negative effects not only at the individual level, on the

performance of each individual, but collectively, affecting the psychosocial labour framework and even the overall enterprise economic performance.

As a direct consequence of these occupational diseases, according to *Fifth European Working Conditions Survey*, in 2010, 35,6% of European workers have missed form workplace 1-15 days and 7,5% over 15 days, both values being decreased over 2005, when only 16,4% of European employees were absent 1-15 days, and only 5,9% – over 15 days. By sectors of economic activity, those in industry more than those in services took days off due to health problems, and by gender – a higher proportion of women than men (Table 1).

Table 1

Share of employees by number of absent days from work last year due to health reasons in the EU-27, in 2000, 2005 and 2010, by sex, age, sector of the economy (%)

Sex Age Economic sector	2000			2005			2010		
	None	1 to 15 days	More than 15 days	None	1 to 15 days	More than 15 days	None	1 to 15 days	More than 15 days
Total	62,6	28,0	9,4	77,7	16,4	5,9	56,9	35,6	7,5
Sex									
Male	63,6	26,8	9,6	78,6	16,1	5,3	58,6	34,5	6,9
Female	61,3	29,5	9,1	76,5	16,7	6,8	54,8	36,9	8,3
Age									
Under 30 years	63,3	29,9	6,8	78,7	17,1	4,2	56,4	39,0	4,6
30-49 years	62,0	28,2	9,9	77,3	16,7	6,0	56,0	36,7	7,3
Over 50 years	63,4	25,6	11,0	77,5	15,1	7,4	59,0	30,8	10,2
Economic sector									
Industry	63,2	26,3	10,5	77,3	16,2	6,4	58,1	33,5	8,3
Services	62,2	29,0	8,8	77,7	16,7	5,6	56,2	36,6	7,2
Occupation									
High-skilled clerical	65,0	28,6	6,4	78,3	17,3	4,4	58,1	35,9	6,0
Low-skilled clerical	61,0	30,2	8,8	76,3	17,9	5,8	54,1	38,6	7,3
High-skilled manual	63,5	24,3	12,1	78,3	15,0	6,7	60,1	31,3	8,6
Low-skilled manual	62,3	26,8	10,9	78,9	13,9	7,2	58,5	32,3	9,1

Source: Eurofound, 2010b.

The most significant figures on health in the workplace, in European countries, in the riskiest economic sectors, are summarized below (European Agency ..., 2009b):

- In agriculture, fatal accident rate for the old Member States (EU-15) is 12.6 per 100,000 workers; for accidents with more than three days absence, the rate is more than 6.000 per 100,000 employees. These are some of the highest rates among all economic sectors. In the old Member States, only 4% of the working population works in agriculture, while in the new Member States – 13.4%.

- In the construction sector, about 1,300 workers lose their lives every year, equivalent to 13 per 100,000 workers, more than twice the average of other economic sectors.

- About 15% of European workers in education sector, from teachers to cooks and administrative staff, suffered physical or mental abuse at workplace.

- Approximately one third of European workers – over 60 million people – are exposed to high noise levels in more than a quarter of their work time. Diseases related to the lower back affect 60-90% of people at some point in their lives.

- In EU-27 there are about 19 millions of SMEs, providing jobs to nearly 75 millions of people; unfortunately, SMEs recorded a rate of 82% of all occupational accidents and 90% of fatal accidents.

- More than one in five employees suffers from stress at work in the European Union.

- Young employees aged 18-24 years had a 50% higher risk than older employees to be injured at workplace.

Characteristics of the situation on work accidents and occupational diseases in our country

In our country, during 1992-2009, according to data available from the National Institute of Statistics, the number of injured at work has decreased constantly from 9,808 in 1992 (9,309 remaining with temporary disability and 499 died in the accident) to 3,839 in 2009 (3,487 remaining with temporary disability, and 352 lost their lives – INS, 2011a), most occurring in the extraction and preparation of coal (mining). At the same time, collective accidents at work increased slightly from 24 in 1992 to 28 in 2009 (peaking in 1997, when there were 50 work collective accidents) (INS, 2011a).

According to the latest data available in 2009, rate of accidents at work was 0,74 ‰ in our country, of which the highest was recorded in the mining industry – 3,62 ‰ (INS, 2011b, pp. 117-120). The rate of work accidents on the overall economy experienced a slight decline in our country in 2004-2009 (from 0,96‰ in 2009), the sector with the highest risk of accidents for employees remaining the extractive industries (mining), at great distance to the next sector with high accidents rates, construction. The downward trend in the rate of work accidents are not recorded in all sectors, in some indicator values maintaining relatively constant over time, while in others they have even increased slightly.

Detailed information about the health and safety at work of employees in our country are offered by Complementary Survey „Accidents at work and work-

related health problems – the second quarter of 2007”, conducted by the National Statistics Institute, as ad hoc module attached to the „Households labour force survey (AMIGO)”, including details about health problems caused or aggravated by conditions at workplace, risk factors occurring in the process of economic activity, cases of occupational diseases, accidents at work, days number of work disability resulting from them, the effects of these events over the daily activities and in relation to the labor market.

Professional disease is, according to the Law no. 319/2006, the affection caused by a trade or profession, toxic physical, chemical or biological agents, characterizing the work place and overcharge of various organs or systems of the body in the work process. In the survey mentioned above, risk factors exposing a person at workplace can be classified, with adequate details, in the following categories:

- affecting mental health: harassment or psychic violence; physical violence or threat with physical violence; pressure (short deadlines) or overload of work (multiple tasks/simultaneous activities);

- affecting physical health: chemicals, dusts, smoke, steam, gases; noise or vibrations; difficult work postures, moving at work, handling of heavy loads; potential risk of accident (INS, 2008, pp. 18-19).

A number of 236 thousands persons, representing 2.4% of persons aged 15 years and over who worked in the last 12 months, suffered at least one accident at work in the reference period; 71.6% of them were men, 64.0% lived in rural area and 69.4% belonged to the age group 25-54 years. Among men who worked in the last 12 months, 3.1% suffered at least one accident at work during that period, as compared to 1.5% of women. The same difference was also noticed by area: 3.4% of persons living in rural area who worked in the last 12 months suffered an accident in this period, as against 1.6% in case of persons resident in urban area. Only 0.6% of persons with high education, professionally active in the last 12 months, suffered an accident at work in this period. The value of this indicator is 3.5% in case of persons with low level of education and of 2.3% for persons with medium level of education (INS, 2008, pp. 27-28).

The distribution of persons injured by ownership of the unit where the accident occurred shows that private sector concentrated 84.7% of the total and 8.8% worked in the public sector.

Distribution of the 236 thousands injured by number of absent days from work caused by the last accident indicates that 42.6% of them suffered minor accidents – retaking their professional activity even in the accident day or in the next day. In case of 29.2% of injured people, the accident caused work incapacity of 1-3 days and for 27.6% absence from work lasted over 3 days. A very small number of persons declared that they didn't work after the accident and could never work again (INS, 2008, pp. 31-32).

With regard to diseases caused or aggravated by work, 818,000 people, representing 5.7% of the 14,245,000 people aged over 15 who were questioned in the investigation, have suffered over the past 12 months at least one health problem caused or made worse by current or previous workplace. Of these, 50.7% were

women, 50.1% lived in urban areas and 46,4% belonged to age group 25-54 years. Over the past year, 5.9% of women had at least one illness caused or aggravated by actual or previous job, compared to 5.6% of men. By area, the difference is more pronounced: 6,.% in rural areas, compared with 5.1% in urban areas. More than half (51,8%) of people with health problems caused or aggravated by job is concentrated in group of persons aged 55 years and older. Young people under 35 are less affected by the occupational diseases, representing only 9.9% of those with health problems (INS, 2008, pp. 36-37).

The most often diseases mentioned by people with illnesses caused or aggravated by work are those of the bones, joints or muscles that mainly affect the back (21.9%) as well as the respiratory tract or lungs (19.2 %), followed by heart disease, stroke or other cardio-vascular problems mentioned by 14.7% of people with health problems, and diseases of bones, joints or muscles that mainly affects hips, legs or feet affected 13.3%. Other professional diseases have shares below 10% each. Among those with diseases of the bones, joints or muscles that mainly affect the back, 54.8% were male, 54.7% lived in rural areas and nearly half (51.6%) belonged to age group 25-54 years. Largest share among people suffering from stress, depression, anxiety or fatigue have people living in urban areas (77.7%) and females (57,5%) (INS, 2008, p. 40).

Depending on the economic sector where the most serious disease has been triggered or worsened and its type, the data indicate that persons working in agriculture and commercial services suffer in a greater proportion from diseases of bones, joints or muscles that mainly affect the back (24.5% and 25,0%). In industry and construction suffering the most frequently mentioned are those of the lungs or respiratory tract (24.3%), and for people working in social services – stress, depression, anxiety and fatigue are the most frequently invoked illnesses (20.4%).

Distribution of 818,252 persons, by absence from work during the last 12 months due to physical or mental health problems caused or aggravated by professional activity, indicate that 46.5% of persons with health problems had no periods not worked because of illness (Table 2), 40.3% of them had periods not worked because of the health problem and resumed work or could have resumed their work due to their recovery; and 13.2% had periods not worked because of the health problem, at present don't work and believed that health will not allow them to work ever (INS, 2008, p. 44).

In terms of the circumstances at current work, which may affect physical or mental health, 47,6% of the employed population believe that at their workplace they are exposed to at least one of the following factors, which could affect physical or mental health: mental harassment or violence; physical violence or threat of physical violence; pressure (short of surrender) or overload (multiple tasks/activities simultaneously); chemicals, dust, smoke, steam, gas; noise or vibration; uncomfortable postures during work, moving at work, handling heavy loads, the potential risk of injury.

Table 2

Population who suffered at least one health problem caused/aggravated by work, by absence from work, by sex, area and economic sector

Sex Area Economic sector	Total	Had time off work and:		Didn't have time off work
		Resumed / could have resumed work	Is currently not working and believe that will not be able to work ever	
Total	818,252	329,708	107,909	380,635
Sex				
Male	403,054	16,675	51,106	185,198
Female	415,198	162,958	56,803	195,438
Area				
Urban	409,615	132,614	63,749	213,252
Rural	408,638	197,094	44,160	167,384
Age groups				
15-24 years	14,403	10,221	-	-
25-34 years	66,469	33,471	-	31,587
35-44 years	115,337	58,082	9,249	48,006
45-54 years	198,029	87,830	30,388	79,810
55-64 years	192,581	64,817	33,717	94,047
65 years and over	231,433	75,286	33,145	123,003
Economic sector				
Agriculture	213,895	158,917	11,871	43,106
Industry and construction	218,458	87,852	28,006	102,601
Commercial services	85,466	30,490	8,394	46,582
Social services	65,507	21,549	*	40,016
Unknown	234,928	30,901	55,697	148,330

Source: INS, 2008, pp. 75, 77.

A total of 1,674,661 persons (17.7% of employed persons) have identified at least one risk factor in the current workplace that could affect their mental health, mostly males (54,7%) and residence in urban areas (68.8%). In 85.6% of cases, the main factor in terms of the effects it can have on mental health has been pressure or overload, 7.4% considered themselves primarily exposed to physical violence, and 7.0% – to harassment or psychological violence (INS, 2008, p. 48). Among employed people exposed at workplace to factors affecting their mental health, and pressure and overload are seen as a major factor by 75% of people in state organizations and 88.4% of persons working in the private sector.

Depending on the economic activity, of the employed persons exposed at workplace to factors that affect their mental health, and pressure and overload is seen as a main factor in the largest share (over 95%) in the sectors: electricity, gas and water supply (95,6%), agriculture, hunting and forestry (95.3%), construction (95.1%). In terms of occupations groups, among employed persons exposed to

workplace factors that affect their mental health, and pressure and overload is seen as the main factor in the largest share (over 90%) by: artisans and skilled workers in handicraft, machinery and equipment regulation and maintenance (96.1%), experts with intellectual and scientific occupations (90.9%), members of legislative, executive senior officials of public administrations, managers and clerks of officials socio-economic and political units (90.1%).

A total of 3,975,772 persons (42.1% of employed persons) have identified at least one risk factor at their current workplace which is likely to affect physical health, 54.8% considered the main risk factor being difficult postures during work, moving at work or handling heavy loads; 22.0% considered themselves as being exposed mainly to the risk of injury. Exposure to chemicals, dust, smoke, steam, gas was indicated as the main risk factor by 12.4%, and noise or vibration by 10.8%.

More than a quarter (25.7%) are exposed, according to their own statements, both to factors that might affect mental health and those that could affect their physical health.

Out of 4,496,621 employed persons who indicated the existence at actual workplace of at least one risk factor which could affect health, 11.6% persons are exposed only to factors affecting their mental health. About two thirds (62.7%) were persons who declared they were exposed only to factors affecting their physical health. Over one quarter (25.7%) are exposed, according to their own declarations, both to factors which could affect their mental health and their physical health (INS, 2008, p. 50).

One positive consequence of improving the working conditions of employees is also the employee remaining at work or at labor market and thus to postpone his withdrawal from activity. Complementary Survey „Transition from work to retirement – the second quarter of 2006”, conducted by National Institute of Statistics, identifies and mentions the factors which determine to postpone the withdrawal from the activity for the employed population in our country. Out of persons aged 50-69 years surveyed, three quarters (76.6%) didn't identify factors that would stimulate them to postpone or to have been postponed the withdrawal from activity, but a quarter of them (23,4%) considered that at least one of the following factors could determine or would have determined to prolong the professional activity: better health and safety at workplace; more flexible working time arrangements; more opportunities to update skills (INS, 2007, p. 45).

The most stimulating factor for prolonging the professional activity is existence of better health and safety at workplace, declared by 92.5% of persons who work and by 95.2% of persons who don't work; of those who work, this factor is mentioned as the most important by 92.5% of women and by an equal share of men, by 92.4% of those who live in urban area and 92.6% of those in rural (INS, 2007, p. 46).

Conclusions

Occupational safety and health play an essential role in increasing the competitiveness and the productivity of enterprises, because it leads to decrease of organizational costs that accidents and occupational diseases involve, costs primarily due to absences from workplace of employees who have suffered from accidents or various illnesses caused or aggravated by work.

Secondly, ensuring appropriate working conditions for employees also leads to increased employees' motivation, implicitly company products and services of superior quality and thus a better customers satisfaction; long term, a better image of the company, besides attracting new customers and maintaining the current ones.

At the social level, the health and safety at work for employees determines attracting new unemployed people to the labor market, postponing withdrawal for senior employees, so an increased employment – the main objective of EU policies regarding labor market.

Although statistic data indicate that in recent years, the frequency of accidents at work decreased slightly, there are still economic sectors (such as agriculture, construction, manufacturing), types of enterprises (SMEs), types of work organization (work shifts, at night) where risks that affect employees' physical safety are still great. Mental health is affected mainly by the stress generated by pressure and overload due to the imposition of strict deadlines, is felt especially by women, by those with high-skilled intellectual occupations, in sectors such as health and social work, education, in companies with a large number of employees.

In Romania, the rate of work accidents on the overall economy had a slight decline in the last years, the sector with the highest risk of accidents for employees remaining the extractive industries (mining) followed by construction. The most often diseases mentioned by people with health problems caused or aggravated by work are those of the bones or muscles, of the respiratory tract or lungs, followed by heart disease, stroke or other cardio-vascular problems. Stress, as a risk factor for the employees' health, is particularly felt by urban workers, female, in services sector. Our national legislation on health and safety at work is trying to closely harmonize with EU legislation, but is focused only on measures aimed to avoid risks in economic sectors that require physical labor, almost totally ignoring the new risks related to mental health and specific to economic sectors that are characteristic for knowledge-based society, involving highly skilled employees.

Occupational accidents and diseases represent, besides a serious threat to productivity and competitiveness of companies whose employees suffer from various injuries and other work-related health problems, also “an enormous financial burden for public and private social protection systems and require an integrated, coordinated and strategic response, as well as cooperation between the main parties involved in the European Union regarding the development of Community and national policies” (European Commission, 2007, p.17).

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DIFFICULTIES IN THE COLLECTION OF DATA AND INFORMATION IN ROMANIA

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Abstract

The purpose of this paper is to highlight the difficulties encountered by any person or company when searching for valuable information on the official sites of the ministries or state institutions, using the available search keys. At the same time, the paper states the necessity to design a new, comprehensive database, with another two keys (one primary and one secondary), in order to better assist the search effort. The data and information contained in this database should be accurate, supplied in a timely manner and against small or no fees. At the same time, the level of the information supplied as result of the search should strictly observe the present regulation regarding the privacy of data and information in the European Union.

Key-words: CAEN, search, database, data privacy, data mining

JEL Classification: O₃₂

Introduction

The issues stated in this paper surfaced while trying to identify, by accessing at first the public official sites, all the Romanian producers of a certain item. The result of the search, although rich in data, was less than satisfactory, due to the modality in which the databases are constructed and to the way in which they are designed to be accessed. The search uses as primary key the CAEN code. The correspondence of the Romanian coding system is NACE Revision 2, as to Regulation (EC) No 1893/2006 of the European Parliament and of the Council of 20th of December 2006 establishing the statistical classification of economic activities NACE Revision 2 and amending Council Regulation (EEC) No 3037/90 as well as certain EC Regulations on specific statistical domains. NACE coding system has the same structure as CAEN – four levels, the fourth level (the class) consisting of headings identified by a four-digit numerical code.

The first problem associated with using the CAEN code is that each four-digit code consists of not one, but several activities. As such, the result of the search might contain irrelevant data for the searcher, since it will always include activities which are out of the desired range.

The second problem is the accuracy of the code used in the search, since under the Romanian present laws, a company may register several CAEN codes, apart from the main one, and be inactive in regard to them. In other words, the main code might be 6201 (which stands for computer programming activities), while in fact the company's main activity is better described by code 4651 (wholesale of information and communication equipment).

Therefore, the main registration code, at the moment of creating the company, might be completely different from the code of the actual activity carried on by the same company.

Paper content

The present design of the database of the Romanian National Statistical Institute (www.insse.ro) allows the search by using exclusively the CAEN code, with the problems described above – the results of the search are too general and might not be accurate, in terms of the real activity of a company. On the other hand, the database of the Romanian Ministry of Finance (www.mfinante.ro) allows individuals to search for companies either by name and county, or by unique registration code. The external search using another key is not possible. In a real situation, when a person wants to find a set of companies with the CAEN code, the usage of this particular official site is useless. Even more, when interrogating the database of the same institution, using either of the data required in the search field, the activity code does not appear on the first page returned. Searching even deeper, by selecting a year for the financial situation, allows the visitor to see the main CAEN code as a description, not as a number. In addition, the code declared on the official site might be accompanied by several others, not visible to the user. As such, while gathering information from this database, some of the activities a company performs are overlooked.

In the effort to obtain information, an individual might, at first, be drawn away from the official sites and into common international search engines, such as Google, Bing, Yahoo, AltaVista, Excite, AOL or others. The main problem with these engines is the huge amount of information returned as a result, relevant for the search engine, but not necessarily for the searcher.

In common practice, the solution to the search problem generally comes from consulting specialized directories, such as www.yellowpages.eu or www.kompass.com. Their respective database uses codes (over 50.000 for the latter) to pinpoint a product or a service. In addition, other indicators are being used, such as “P” for producer, “D” for distributor, “I” for importer and so on. In this manner, by using detailed, fractioned codes as primary key, and then applying other parameters to the search, the relevant results are narrowed down from a larger pool of results. Other private directories allow search using pre-determined keys, listed either alphabetically or by other criteria – activity domain, location etc.

The main concern in relying exclusively on these directories, even when they are very well designed and contain a lot of data and/or information is that they might not contain it all.

On the other hand, the state institutes, agencies and ministries are fully comprehensive, not leaving any company aside. As such, their respective databases, with an improved design, could offer all the necessary and exact information in a timely manner, and at the same time observe the laws regarding privacy of data and information dissemination.

The difficulties of listing all codes is obvious, but in our opinion, the database table should contain, along with the main CAEN code, also the code of the next most frequent activity performed by the company. In this way, the database will store both the declared code (which shows the activity for which the company was first registered for) and the functional code, which gives an insight of the current activity and is relevant to the search.

For instance, at the present time, the production of homeopathic preparations is included in code 2120, along with the manufacture of: antiserum and other blood fractions, vaccines, chemical contraceptive products for external use and hormonal contraceptive medicaments, medical diagnostic preparations, including pregnancy tests, radioactive in-vivo diagnostic substances, biotech pharmaceuticals, medical impregnated wadding, gauze, bandages, dressings etc., botanical products (grinding, grading, milling) for pharmaceutical use. To pinpoint the homeopathic preparations out of the code 2120 and using the theory of combinations, another field of maximum four digits can be introduced to uniquely determine the exact range of activities carried out by a company. So the code for these products can be, after adding the supplementary code, for instance 2120-0004, which stand for manufacture of pharmaceutical preparations, homeopathic preparations.

Conclusions

The most reliable data and information are stored in official organizations. Therefore, any search should start with their respective databases, the design of which can be improved, in order to provide the searchers exact, accurate, timely data and information.

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PROTECTION AND SECURITY OF DATA BASE INFORMATION SUMMARY

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Abstract

Data bases are one of the most important components in every large informatics system which stores and processes data and information.

Because data bases contain all of the valuable information about a company, its clients, its financial activity, they represent one of the key elements in the structure of an organization, which determines imperatives such as confidentiality, integrity and ease of data access.

The current paper discusses the integrity of data bases and it refers to the validity and the coherence of stored data. Usually, integrity is defined in connection with terms of constraint, that are rules regarding coherence which the data base cannot infringe.

Data base that integrity refers to information correctness and assumes to detect, correct and prevent errors that might have an effect on the data comprised by the data bases.

Key-words: *data security, data base security, data protection, integrity restrictions, control*

JEL Clasification: C₆₁, C₆₃, C₈₈, P₄₁

Introduction

Because data bases contain all of the valuable information about a company, its clients, the financial activity, they represent one of the key elements in the structure of an organization, which determines imperatives such as confidentiality, integrity and ease of access to data. These can come in the form of management systems for documents and accounting, billing systems, content management systems (CMS), management systems for technological processes of production.

The risks that can appear in this case come in the form of both external (viruses, hackers, competitors etc.) and internal (theft, mal-intended use, errors and a weak surveillance over personnel and users) factors. Also, it is necessary to take into consideration the reliability of systems, SGBDs, technical means that can interact with some factors like: fires, natural calamities.

Therefore, initially, in order to find solutions, it is necessary to establish the weak points of the data base:

1. The SQL language – it represents a powerful tool of data interrogation, but it also permits the hacking of the system, meaning:

– accessing information using logical deduction, matching or breaking the passwords of the data base users, breaking the system in order to increase the number of privileges;

- data aggregation;
 - modifying or replacing data etc.
2. Access management to SGBD/BD:
 - weak surveillance over personnel and users;
 - errors determined by users' mistakes or those of external users;
 - equipment theft;
 - information breakage.
 3. Attacks against the data base information:
 - information tapping while it is circulating through the network;
 - the use of the existing network connections to the data base, established by logged in users.
 4. Other types of attacks:
 - operating system attacks;
 - buffer overburdening, blocking data access;
 - hackers and viruses.

Data integrity in models of data base information organizing

Data base security can be insured by applying some models that correspond more or less to the type of activity, security policy and to the level of importance of the company's information.

A simple model of data organizing is composed by two elements:

- access control – where every user or informational process of the system has a certain set of permitted actions, which can be executed in relation to certain objects;
- authenticity control – it checks if the user or the process is indeed trying to perform the action it is being entered in the system.

A more complex model of data organizing is the data base multilevel security one, which represents a powerful instrument. This one also has some downsides regarding productivity, costs and ease of access. In these types of systems, the information is organized in several degrees of importance and it usually uses the Bell-LaPadula model that manages subjects, processes and objects.

The methodologies of fighting against data base risks and attacks can be ranged into three categories:

- Data base and SGBD security – scanning the data base, auditing the vulnerabilities, monitoring the activities, control over data base access.
- Auditing network and operating system vulnerabilities – mechanisms that are based on scanning the network and outside. The results consist of examinations, reports and identifying the weak spots.
- Encrypting the data base – a management system of keys that allow a variety of encrypting algorithms.

Data integrity in data base management systems

Data base integrity refers to information faultlessness and it implies identifying, correcting and preventing different errors that can affect the data base information. When referring to data base integrity, this means that the data is

consistently relative to all of previously established restrictions (that apply to that data) which make the data valid. The integrity conditions, known also as integrity rules or restrictions, do not allow users to add to the data base abnormal data or that are reflected through data applied criterions.

There are many criterions when making an integrity rules classification. There are a series of structural rules, connected to certain levelness between values and these are expressed through functional dependency or through setting fields of unique values.

Another series of conditions are structured by the unit where the restriction is applied, and in this case there are domains restrictions (regarding certain values for attributes) or tables restrictions (connections). Table based restrictions can be unituple (it refers to each tuple separately) or multiple (it refers to different tuples combinations).

An integrity restriction of unituple connections imposes that in every tuple of a base connection, in the fields corresponding to the primary key, to have values that are different from the correspondent null values. This rule can also be stated as: "in a relational data base there is no information enlisted regarding something that cannot be identified".

A multiple integrity restriction example is the referential restriction which implies the condition that the external keys, if they are not null, they will have values corresponding to one of the primary keys existing in the referred connection. This condition is checked every time a new tuple that contains an external key is being inserted or the values of a tuple's external key are being modified, signaling the possible discrepancies canceling the modifications. Other such examples are to verify the uniqueness of the primary key and the restrictions resulted from the functional and multivalue dependence.

Another classification criterion is the one that decerns between integrity rules that refer to different statuses of the data base from the rules of transitioning from one status to another.

Restrictions can be structured also by taking into consideration the moment in which they are applied, thus having immediate rules (that are verified when the indicated action is being executed) or postponed rules (that are verified after other connected actions have been executed but not before modifying the data base).

According to the applicability area, restrictions can be grouped in general restrictions, which are applicable to all data base connections and specific restrictions, which are applicable to only certain connections.

Integrity rules are applicable to data base connections that have represented the effective information of the data base. Some of the most frequently used general rules in the relational model are the rules regarding primary keys (the uniqueness of the connection's primary keys) and external keys.

Two types of integrity restrictions can be analyzed:

1. *Restrictions regarding entity integrity*

In a base relation the attribute of a primary key cannot be null. There is known that (in many situations) the values of the primary keys must be unique. For

most SGBD the uniqueness of the primary key and the integrity of the entity are compulsory conditions.

2. *Restrictions regarding referential integrity*

If in a connection there is an external key then either the value of the external key must match the value of a competing key from a certain tuple in the originating connections, either the value of the external key must be null.

In other words, if a value exists in a connection as an external key, either it has to match the value of an external key from another connections either it has to be null.

Strong issues can appear when the values of the primary keys should be modified or deleted.

If a primary key is being updated or if the entire tuple is being deleted and if

- the value of the primary key does not appear anywhere as an external key then the action can be performed;

- the value of the primary key appears elsewhere as a primary key then the action cannot be performed;

- The action can be performed but there are also set up the entries of the external key at null values or at an implicit value (if one was mentioned);

- The action can be performed but also:

- *in the case of updates* – the changed value is propagated to the external key's adverts where the external key is a part of the primary key of the connection and also the changes will be conveyed where the mentioned primary key is an external key in another connection.

- *in the case of erasures* – the growth is propagated, meaning that there will be deleted the tuples that have values of the external key matching the primary key and that communicate with the user.

All of the above are general rules that can, according to each case, suffer small transformations related to a specific application.

The situation described above can be solved in the application or can be included in the SGBD using the triggers mechanism. Most SGBD allow the creation and registering of data base procedures, procedures that can be invoked when certain events occur (such as updating or deleting attributes).

Data protection

Data protection against failure events such as system failure caused by software or hardware components breakdown is also associated with data integrity.

Accidental data loss of consistency can be caused by:

- incidents that occur when transactions are being performed;

- anomalies due to concurrent access to the data base;

- anomalies due to working with data distributed on several computers in a network;

- logical errors generated by the programs belonging to the users and others.

For the restructuring of data bases when inconsistencies can occur, most data bases are being periodically copied using magnetic means kept in safe places. There is also kept an inventory of all the transformations performed on the data

base since the last copy has been made. The file that contains these modifications is known as a journal. Each record from the journal contains an identifier of the program that has performed the modification, the former value and the new value of an item. In the journal there are also kept different important moments in the functioning of a program (initiating and ending a program, ending certain operations etc). All of the mechanisms mentioned in this paragraph are the features of working with transactions. At the completion of a transaction, regardless of the fact that it ended normally or with errors, the data base must have the same degree of integrity as the one from the moment when that certain transaction has been initiated.

A transaction has been executed if all of the reckonings generating by it in the working area have been completed and a copy of its results has been made in the journal. The occurrence of failures after the transaction has been executed does not have an impact on the data base because the data base can be rebuilt with the help of the last copy and of the journal which contains all the results of the executed actions. The modifications generated by unfinished or uncommitted transactions are not taking into consideration when rebuilding the data base by using the journal.

The committing strategy contains two phases as it follows: a transaction can write in a data base only after it has been committed and a transaction can be committed only after it has registered in the journal all the item changes generated by it.

There are a few aspects that should be mentioned regarding the integrity and security of data bases:

- Making sure that stored up data coherency related to their own significance. For example, the cornered quantity must not be negative; the paid salary should not be smaller than the minimum guaranteed salary etc. The rules of semantic and structural integrity should be respected.
- Making sure that the concurrent actions of users do not bring prejudices to other users. This refers to the synchronization of concurrent access to the data base.
- Making sure that after a physical error (power failure etc.) the data base will remain coherent. This refers to safety in data base functioning.
- Making sure that the data base is being used by users that have that right. This refers to assuring security means when using the data base.

Usage security

SGBD must have mechanisms that insure the security of the stored information. Below there are mentions four groups of techniques that insure security:

- the control of access – it verifies the identity of the users and their access rights;
- the control of data flows – it monitors the track of the data in order to protect it from being used inappropriately;

- the control of inference – the user cannot construe confidential information through the interface (using the data that the users has access to).

Cryptography has the purpose of stocking and transporting data in a manner understood only by the users that have a certain code to translate it. With the help of a secret code C, the data D is encrypted (using an encrypting program) and can be decrypted only by the holder of that secret code. There are several programs that perform encrypting/decrypting actions (the PGP program that performs on the Windows platform).

The issue regarding the security of usage becomes more and more important as the data bases informational system are more open to the internet.

Assuring the security of data refers to the protection of data bases against their unauthorized usage and especially against unwanted data modifications or obliterations and against unauthorized access to data.

Technical and administrative controls are used for assuring the security of the data base information;

Usually, security is associated with the following situations:

- unauthorized access to data;
- losing data confidentiality (secrecy);
- losing data privacy;
- losing data integrity;
- losing data availability.

It is challenging to protect data from mal-intended access. It is admitted the fact that there is no absolutely safe data protection, but only protection and security measures more or less efficient.

Examples of on purpose mal-intended access to a data base information:

- unauthorized reading of data;
- unauthorized modifications of data;
- data deleting.

The term of data base security is usually associated with the mal-intended access, while integrity refers to avoiding accidental losses of consistency.

For data base protection there can be taken integrity assuring measures at different levels:

- at physical level – the computers should be placed in a space that does not allow the access of unauthorized people;
- at people level – it is recommended to grant access authorizations with lots of care and to keep a strict track of all the authorized users;
- at operating system level – the shortness of the operating system should be eliminated or compensated by other measures;
- at SGBD level – the systems provides certain facilities that assure data protection.

Techniques of data security insuring

Users identification

Each user is being granted certain rights to operate in specific areas of the data base at different levels such as the connection, registration, the page, the attribute etc. These rights refer to the possibility of reading, inserting, deleting or modifying specific data. Identification is usually done through passwords set by either the data base administrator or by the user.

Data protection through coding (encrypting)

Because there are other ways besides through a SGBD to reach data (for instance, through directly reading the magnetic environment) protection can be done by keeping data encrypted on the magnetic environment.

The use of views in applications

The ability of views to 'hide' some of the information from the data base can be also used for setting a certain degree of data security. Therefore it exists access at connection (table) level or access at view level.

Some systems do not accept modification made through views. These views are called read-only and are used especially for applications in which data can be read by all users (public data bases), but the modifications are made only with the administrator/data base owner approval.

The views modifications are usually not permitted because these can lead to lateral effects over parts of the data base that do not appear in views. For instance, deleting an item from a view can lead to the elimination to another item that has a connection with the deleted item and is not included in the view.

Rights administration and transfer

A strict access rights inventory is being kept for each user at certain areas of the data base and there are set rules for access right transfer from one user to another.

Means of authorization:

- authorization for reading (consulting);
- authorization for inserting (adding);
- authorization for updating (excluding errors);
- authorization for deleting (at tuple level).

For the above cases it is not take into consideration the issue of performing changes at data base scheme level. If this aspect is included then we have the following:

- authorization at index level (creating and deleting indexes);
- authorization at connections level (creating);
- authorization for modifications at connections level (deleting or adding attributes in connections);
- authorization for deleting all connections.

Different protection methods can be indicated through the language used for data processing. The data base areas that can be accessed by the user can be

defined through selection and protection actions which make visible other areas of the data base.

The management of the organization, which is the data base owner, must take security measures that will reduce the risk to lose or destroy information. Through information loss it is understood that the private sense of the information is being lost, becoming available for a larger group of persons than the initial one. The “leaks” of information don’t always leave traces, therefore they cannot always be found as detectable changes in the data base.

Conclusions

The problematic of security refers to legal, social and ethic aspects, physical control aspects (guarding and the possibilities to block access at terminals), access aspects (conditions for access approval), operational aspects (passwords creation), hard control aspects (the way of hard access to different components), operating system security (information protection and canceling intermediate results in order to keep data secrecy), aspects regarding the notion of data ownership and other similar ones.

There must be mentioned that thefts and frauds are not necessarily related to the data base. They represent a risk factor for the entire organization, the gravity of this actions varying also according to the companies profile.

In the European Community there has been a serious concern in order to bring to date the specific legislation in order to serve the current needs generated by the high use of computers. What is mainly aimed is to establish laws that will protect both persons and organizations and that will respond to the need of information privacy, meaning that the information should not be available for access to a larger or smaller audience if this could have negative consequences on the owner of those pieces of information.

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WORD-OF-MOUTH MARKETING AND ENTERPRISE STRATEGIES: A BOTTOM-UP DIFFUSION MODEL

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Abstract

A comprehensive simulation model is presented, aimed to show the dynamics of social diffusion based on the word of mouth (e.g.: viral marketing) over a social network of interconnected individuals. The model is build following a bottom-up approach and the agent based paradigm; this means that the dynamics of the diffusion is simulated in real time and generated at the micro level, not calculated by using mathematical formulas. This allows both to follow – step by step – the emergent process and to be able – if needed – to add complex behavior for the agents and analyze how this impacts the phenomenon at the macro level.

Key-words: *viral marketing, social diffusion, word of mouth, simulation*

JEL Classification: M₁₀, M₂₀

Introduction

Word of mouth (WOM) recommendations are very important for customer acquisition, especially for small and medium enterprises (SMEs). This is why “viral marketing” and other forms of WOM marketing have gathered much attention in recent researches. Even if there are many mathematical models, often based on the dynamics of biological infections, trying to analyze the process of information diffusion undergoing in social context, these are usually built following the top-down approach and employ equations to show how, to a certain “limit”, the phenomenon will evolve. Those models are surely useful to have an overview of the power of communication and social diffusion, but do not allow to directly experiment on them, since it’s very difficult to model complex behaviors (like opinion leadership, mass communication, human preferences and biases) by means of mathematical equations. Moreover, these models usually give a static result (e.g.: what percentage of a population will be reached by the “contagion”, after a given time) and don’t show the evolution of the phenomenon in real time. This is particularly important when the purpose of the research is not the phenomenon itself, but rather the strategy that a firm can follow to be able to “hit” as many potential customers as possible, with its message.

The model presented in this paper, on the contrary, follows a bottom-up approach; instead of mathematically building a framework to be analytically solved, the goal is that of defining the entities at a micro level (i.e.: the enterprises,

the customers, the opinion leaders and so on) and then giving some interaction rules (i.e.: the “infection” strength, the average number of neighbours, the bias towards a particular decision, the value of reputation and so on) so that the result is emergent and not already hidden in the premises.

This allows analyzing how a particular communication strategy, based on the WOM, could be effective for an enterprise and how other – often exogenous – factors could leverage or compromise it. Besides it’s possible to make “on the fly” modifications to the scenario, so to simulate sudden problems or changes to the environment, and create a sensitivity analysis for the main variables employed in the model.

Below the structure of the model will be analyzed and described in details, but not employing a formal and technical description. The model has been internally designed by the author himself and a programming framework (Microsoft .NET) developed by the author of this paper with the technical support of Maria Anna Cataldi and Maurizio Destefanis.

Literature review

The literature about WOM advertising and viral marketing is wide and addressed by both academicians and practitioners.

WOM Marketing has been called by many terms such as viral marketing, buzz marketing, network marketing, media leveraging, and exponential marketing, to mention a few. The methods of message propagation for this type of strategy have been likened to a virus or a disease which gets easily transferred from one person to another, hence the term Viral Marketing. E-mail messages with free product offers or trial privileges for a certain application are just one of the varied ways to launch a viral marketing campaign. So WOM marketing describes any strategy that encourages individuals to pass on a marketing message to others, creating the potential for exponential growth in the message’s exposure and influence. Like viruses, such strategies take advantage of rapid multiplication to explode the message to thousands, to millions. According to Wilson (2000) there are six fundamental features about a good WOM marketing strategy. It: gives away products or services, provides for effortless transfer to others, scales easily from small to very large, exploits common motivations and behaviours, utilizes existing communication networks and takes advantage of others’ resources. Traditional marketing is in crisis, because customers are increasingly inured to television commercials, direct mailings, etc. At the same time, companies like Amazon, Google and Hotmail succeed with virtually no marketing, based solely on word of mouth (Dye, 2000). A study found that positive word of mouth among customers is by far the best predictor of a company’s growth (Reichheld, 2005). Word-of-mouth marketing has the key advantage that a recommendation from a friend or other trusted source has the credibility that advertisements lack (Jurvetson, 2000). Because it leverages customers themselves to do the marketing, it can also produce unparalleled returns on investment.

Some models about WOM marketing already exist, that try to represent it in an analytical way, by using mathematical equations. An interesting one, found in

Domingos (2005), tries to be predictive, rather than just descriptive, by using data mining techniques on social networks.

Theoretical background

Agent based simulation (ABS) consists in building models of societies founded on artificial agents, i.e.: autonomous and interacting entities, mimicking the behaviour of humans or other real world parts of a given system. The methodology consists in designing the behaviour of the individual agents and the interaction rules among them and with the environment that hosts them. So, the aggregate behaviour is not designed, but rather emerges as a consequence of the interaction itself, exactly as in the real world.

This approach is characterized by the assumption that artificial data, obtained as a result of the simulation process, allow to build theories, useful to face real problems and analyze real situations. ABS is particularly interesting when applied to Social Sciences and Enterprise Economics and Management in particular, since it allows studying these systems in a scientific way, resembling that used to study Physics or Chemistry. Those subjects like Enterprise Management, in fact, can't be studied in a laboratory: the experiments can't be replicated "coeteris paribus" on them, and besides the human factor often makes these systems non deterministic. By building a scaled model of a real social system, on the contrary, it will be possible to test on it as if it were in a laboratory, and "what if analysis" becomes possible and effective on it. By changing a parameter at a time and replicating the experiment, it's possible to understand how that factor will affect the system. Besides the system can be "cleaned up" of all the exogenous factors that do not interest directly a given research, so that focusing on a particular problem is possible.

The model presented in this paper follow the ABS approach and studies a social network of interconnected agents.

Model description

In the presented model, all the entities are interacting agents. The set of agents is composed by three main categories: A, B, and C. This has been introduced to allow different linking possibilities among the agents; in particular, A can only be linked to B, and at the same way also C can only be linked to B. B, on the contrary, can be linked with A, C and also with B itself. So, no A to A, A to C and C to C links are allowed. For a basic diffusion model, in which no rules for the linking connectors are considered, B agents can be employed alone (without A and C), so that they all are at the same hierarchical level and can be connected among them with no restrictions. The total number of possible links equals to $n * (n - 1) / 2$ for a fully connected graph in which only n agents of the B type are present. In general, be n the number of agents B, m the number of agents A and p the number of agents C, the total number of possible links equals

$n * \left(m + p + \frac{n-1}{2} \right)$. From this value, it's possible to calculate the number of the existing links in a given scenario, by considering a connection percentage.

The first step in the model is the random network creation, given the number of agents A, B and C, and the connection percentage; at the end of this process, if one or more nodes are left without any connection, the user can decide either to remove these nodes from the simulation, or to give them a random link with another agent (according to the described rules), or to leave them without any link. The system can optionally check for the presence of "isles" i.e.: not a single unique network, but several networks not inter-linked. If found, users can decide to keep them or to add more links to avoid them. Of course, by adding links, the final connection percentage can be slightly different from that indicated by the user.

Besides defining the number of agents in the simulation and the connection percentage, the user sets, for each category: the infection force, the percentage (or number) of infected agents at time 0, the infection duration and possible decay dynamics, the percentage (or number) of immune agents, the possibility to get infected again (and, in that case, the number of steps after which this could occur).

Each agent in the simulation features the following attributes:

- *ID*: a unique identifier.
- *Type*: <A, B, C>.
- *Infection*: a Boolean value identifying the current state.
- *Virulence*: if infected, a % defining the probability to infect other connected agents.
 - *Infection duration*: an integer defining the number of turns since the agent turned infected.
 - *Possible recovery*: a value identifying if the agents can heal from the infection or not.
 - *Time for recovery*: an integer defining the number of turns after which an agent can recover from the infection. A value of zero indicates that no recovery is possible.
 - *Decay*: if recovery is possible, this parameter allows selecting one out of five different types of infection force, overtime: Uniform, Linearly decreasing, Linearly increasing. Exponentially decreasing and Gaussian model. Default value is Uniform. If the value of Infection duration is equal to 0, the Decay parameter is ignored and the infection force is always equal to the value described in "virulence".
 - *Multiple infections*: indicates if an agent can get the infection again, after he recovered.
 - *Immunity time*: defines the number of turns in which an agent is immune after recovering.
 - *Immunity*: a Boolean value identifying if the agent is immune to the infection (for the whole simulation or after he got an infection and recovered).

Each class features an optional sub-class, which comprises the so called "opinion leaders"; these are agents that (typically but not compulsorily) have an higher probability to infect others, due to their higher importance (weight) in the

network and this is particularly useful for social models (e.g. word of mouth). These agents are treated as separate ones, in the sense that all the variables for them can be set independently from those regarding the basic kinds, except that their links follow the rules of the original class to which they belong.

At each simulation step, all the infected agents are considered; for each of them, the neighbours list is analyzed. For each neighbour, if not infected, the probability to become infected is calculated using the “virulence” value of the infected agent connected to it. If an agent is immune, then it won’t be infected even if it should. If an agent is infect and time for recovery is higher than zero, then an agent can recover after the given steps. In this case, if immunity time is higher than zero, the recovered agent is immune for the desired amount of steps. Otherwise, it can immediately be infected once again.

The system ends when a combination of the following conditions (chosen by checkboxes) occurs within the simulation: After N steps, When all infected, When % infected, When all immune, When % immune, When all uninfected, When no changes for N simulation steps, If all infected at least once, If % infected at least once.

The conditions can be individually selected or can be chosen in combination; in this case they can be set in a logical AND/OR situation among them, in order to create combined conditions suited for any analysis.

Conclusions

In this paper an agent based model is presented, dealing with the diffusion of a message coming from an enterprise through WOM marketing techniques. Differently from most existing models this one does not explore the results of a diffusion by using mathematical equations, but rather aims to build the social system from the bottom, by defining the individual entities and then having them to interact, based on given rules. This approach allows to explore the dynamics of the phenomenon step-by-step, and to change some parameters to see how this affects the rest. In future works the model will be used to experiment different scenarios and derive strategic hints for those enterprises using WOM marketing as a way to communicate with potential customers.

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THE SYSTEM OF THE DIDACTIC PRINCIPLES WITH APPLICABILITY IN TEACHING ECONOMICS

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Abstract

The present paper aims to present the system of didactic principles and offer several models of didactic tasks used in teaching Economic objects, but they can be broaden to any other school objects, in accordance with the presented approaches and their specific features.

Thus, we presented the following principles: the principle of the active and conscious appropriation of the knowledge and skills; the intuition principle or of the unity between real and abstract, between rational and sensorial; the principle of accessibility and of respecting the students' age and individual particularities; the principle of connecting theory with practice; the principle of knowledge systematization and continuity; the principle of the rigorous and durable appropriation of the knowledge, abilities and skills; the principle of assuring the feed-back within the system of learning.

The didactic tasks are found after every above mentioned principle. The work is suitable for mainly probationer students and for teachers.

Key-words: *the system of the didactic principles, the economic objects, the thinking operations*

JEL Classification: A₂₀, A₂₁

Introduction

The progress realized within the education field leads to the forming a corpus of didactic principles, with a great availability for a great variety of conditions, for all the learning levels. The relation between the educational objectives and the didactic principles is shown also from their definition. [(Burja V., et al, 2006), p. 101] The principles are fundamental theses, general rules which represent the basis of the teaching-learning activities projection, organization and displaying, for an optimal realization of the educational objectives. (Ionescu M., Radu I., 1995)

Literature review

The system of the didactic principles was studied by many pedagogues and researchers. Thus, M. Ionescu and I. Radu (1995) presented them, I. Bontaş described their characteristics (1994, p. 122-123); of much importance were the papers and researches of I. Cerghit, T. Radu (1990), C. Cucuș (1998), I. Jinga (2000).

The system of the didactic principles

Within the contemporary didactics, the didactic principles are presented generally as a system. Depending on the approach perspective, the number, the formulation and even the content of the principles differ. (Burja V., et al, 2006, p. 102-110)

The traditional didactics consecrated the system we have already mentioned in the abstract of the present paper. We agree with this and recommend the teachers use it in the teaching Economics objects.

1. We know that *the principle of the active and conscious appropriation of the knowledge and skills* expresses the necessity of manifesting an active and conscious attitude of the students in the learning process; it also creates the students the necessary premises of a profound and creative understanding of the notions under discussion, by avoiding the mechanic, formal learning. The simple presentations or defining of the economic categories lead to confusions or wrong interpretations if one does not specify the circumstances which can determine a particular economic phenomenon, the causes of its appearance or the evolution of some economic indicators and so on.

Task: By applying the principle of the active and conscious appropriation of the knowledge and skills, explain argumentatively the content, the causes, the forms of manifesting and the social and economic implications of the inflation. Start with concrete examples, train the students in resolving some problems which are connected to this economic phenomenon, identify solutions offered by the students for the inflation equilibration.

Connected to this principle is *the comparison* as a thinking operation. Within the study of the Economic objects, it leads to the social economic contents appropriation and to the delimitation of the comprising area of some notions against others. The comparison also allows the study of the results level and of different economic indicators towards the recorded result of the same indicator in other situations, in the given situation is considered a referential point.

Didactic task: Realize a parallel between shares and bonds at the theme “The capital market”. Take into account the following items: what do they represent, the brought income, the intervention in administration, the risk, the duration.

Other thinking operations we meet are *the analysis* and *the synthesis*. They are opposite, but condition each other. Through the analysis, the presented economic category is decomposed in its constitutive parts, these are separately

analyzed and finally the essential features which characterize the respective category are presented. Through the synthesis, the whole is reconstructed.

Didactic task: Analyze the economic category “property”, following its two components: the property object and the property subject. Identify the pluralism of the property forms and then, through synthesis, reach the free initiative based on the private property, as an essential feature of the market economy.

The induction is the logical operation which consists in drawing the conclusions, the rules, from analyzing the concrete, particular cases, then reaching the theses, the concepts and the theories with a general character.

The deduction is that type of argument that one can pass from general to particular.

The principle of the active and conscious appropriation of the knowledge and skills determines affective and attitudinal changes to the students, increasing their trust in the assimilated knowledge and abilities, increasing the efficiency of the learning process.

2. *The intuition principle or of the unity between real and abstract, between rational and sensorial* expresses requirements due to it is necessary that the learning process start from the real contact with the studied object or phenomena, from the concrete reality and has the purpose to internalize the gained perceptions via senses and the tripping of an intense mental activity of forming some representations. The requirements of this principle can be touched by presenting during a lesson/seminar of a diverse didactic material under the shape of schemes, graphics, diagrams, films, CD-s, cassettes and so on.

Realize and present (explain) o scheme, a diagram, at your choice. A classic example is the explanation of the equilibrium price.

For the usage of the intuition principle to be efficient, it is necessary that the didactic intuitive material to correspond to the lesson purpose help students notice the essential aspects and imply as many senses (seeing, hearing and smelling) as possible.

3. *The principle of connecting theory with practice* is naturally connected to the intuition principle and supposes that the appropriation of the economic aspects be through their direct joint with practical activities, thus one avoids the accumulation of the formal pieces of knowledge.

There are a lot of modalities for applying this principle:

- the presentation of the applying domain of the knowledge and the illustration with concrete examples;
- solving problems and exercises specific for every object;
- the usage of the appropriate methods in the teaching-learning process, such as the case studies, the company games;
- visiting the companies;
- laboratory works and practice activity.

Task: Present at least a problem proposed to the students for being resolved, after the teaching of the theme “The Unemployment”.

Task: Teach the theme: “Work Division” during a visit in an economic entity. What practical, concrete aspects would you stress, applying the principle of connecting theory with practice?

Within the principle of connecting theory with practice an improvement of the students knowledge and life experience takes place. The pieces of knowledge gain an operational value, by forming abilities and skills. The students’ spirit of observation, thinking, imagination and attention are also developed; new attitudes, motivations and beliefs are formed.

4. *The principle of accessibility and of respecting the students’ age and individual particularities* implies that the organization of the system of learning be realized taking into consideration the real possibilities of the students; it is conditioned objectively by their age, their previous knowledge, their individual physic and intellectual potential. The accessibility does not suppose the renunciation at the intellectual effort from the students’ part, but their training in a continuously and sustained effort in order to assimilate new pieces of knowledge, abilities and skills. The dosage of the effort is required in fact, because the exceeding of the students’ possibilities leads to a mechanic learning, lack of interest, breakdown.

The specialists (Postelnicu C., 2001, p. 300) speak about a series of individual particularities, specific for every student:

- the psychological specific, represented by the psychic features (temperament, character) and distinct affective-emotional particularities (interests, aspirations, needs, beliefs);
- the neuron physiological specific, represented by the functional particularities of the nervous system and of the sense organs;
- the intellectual capacity, represented by functional particularities of the nervous system and of the sense organs;
- the volume of knowledge, abilities and skills of every student;
- the life experience, familial environment and learning style of every student.

Task: Which one of the following fragments of text do you consider that respects the requirements of the accessibility principle? Motivate your choice. Take into account that your students are in the eleventh form.

a. “The US economy is set to maintain its strong rates of growth and job creation and there is no risk of a resurgence of inflation in the foreseeable future, President Clinton said yesterday in his annual economic report to Congress. Our economy is stronger than it has been in decades, Mr. Clinton said in the report prepared by his council of economic advisers.” (Ștefan R., et. all, p. 142)

b. “Originally the over-the-counter market dealt mostly with small firms that could not qualify for listing on the national exchanges or did not want to bother with procedures. Today, however, well-known firms such Apple, MCI and Coors prefer to have their stock traded on the OTC market.” (Miculescu Andrei (coord.), 2007, p. 145)

5. *The principle of knowledge systematization and continuity* supposes that the content be taught and learned in a specific scientific and pedagogical order, which has to assure the information accessibility and assimilation in their naturally sequence. The observance of this principle starts with the content organization in logical sequences: chapters, sub chapters, themes. Exemplify.

Realize the table for resolving the operations of an accounting analysis. Please show us how you respect the requirements of the principle of knowledge systematization and continuity (through chaining the economic operations, the documents of bookkeeping evidence, the necessary knowledge, the logic sequence).

The principle of the rigorous and durable appropriation of the knowledge, abilities and skills expresses the requirement that the knowledge, the abilities and the essential skills be kept for a long time, in order to be reproduced and used when necessary.

By respecting the requirements of this principle, present your students in the eleventh form the definition of “the request”, after they have already learned about “the offer”. Please, point out the essential differences and the newness elements.

The usages of some schemes when presenting a theme do contribute to the knowledge fixation and correspond to the principle of the rigorous and durable appropriation of the knowledge, abilities and skills. Within the theme “The productivity of the production factors”, present the students the following scheme:

PRODUCTIVITY	Natural factors
	Technical factors
	Social factors
	Psychological factors
	International factors

6. *The principle of the rigorous and durable appropriation of the knowledge, abilities and skills* expresses the requirement of keeping the essential knowledge, abilities and skills for a long time, for being reproduced and used when necessary. If the other principles stress the knowledge assimilation, this one takes into account the knowledge fixation.

The fundamental requirement for a rigorous and durable appropriation of the knowledge, abilities and skills is their repetition.

Task: Explain to your students the scheme “The operational structure of a company”. This helps the knowledge systematization, understanding and fixation.

7. *The principle of assuring the feed-back within the system of learning* refers to the continuous improvement of the results, depending on the previous achievements. During the teaching process, the feed-back is an essential condition for the efficiency of the educative act. The teacher has to assure himself all the time that the knowledge he transmits to the students is understood by them and they can also operate with it.

Within the theme “The productivity of the production factors” how can you verify during the lesson that the students realize the difference between the partial and the global productivity? (Suggestion: ask them exemplify the two categories).

Observing this principle leads to acquiring the habit of systematic work, life and character features. The economics science requires much structures, systematization and continuity.

Conclusions

The present paper spoke theoretically about the importance and specific features of the system of didactic principles, but it has a didactic part, consisting in methodological task the teacher should use within the Economics theme, during the teaching process.

We noted from the principles features that they have a law character, because they represent general, essential, relatively stable reports. They have an objective character, act independent on the implied factors in the process of learning. They have an algorithmic character, because they are expressed through a set of rules and requirements. We have to notice also they have a dynamic character, evolving in concordance with the educational process. (Costea Ștefan, Șerdean Ion, 2004, p. 101-102)

Respecting the principles requirements determines affective and attitudinal changes to the students, increasing their trust in the assimilated knowledge and abilities, increasing the efficiency of the learning process, leads to acquiring the habits of systematic work, life and character features.

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III. POSITIVE STRONG POINTS OF COOPERATION BETWEEN NATIONAL ECONOMIES

USING COOPERATIVES ONTOLOGIES FOR THE CUSTOMIZATION OF HYBRID MEDIATOR INTERROGATION PROCESS

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Abstract

The explosion of information sources accessible via the Web created the need for mediation tools between users and heterogeneous information sources on the Web. However, the interface design of these mediators, with taking into account the wide variety of skills and knowledge of users, and the need for them to share their preferences, requires systems able to guide the user through the interrogation process. In this paper, we try to raise this challenge by proposing, on one hand, the use of a cooperative ontology's models, which adapt with the evolution of user's profiles and the dynamic change of integrated sources, and secondly ensure sharing the knowledge between users which will facilitate analysis of information and improve the data quality research process in space and time.

Key-words: *ontology, mediator, data warehouse, hybrid, profile, focus, PMD, health, medical domain, patient, AXMed, interoperability, security*

JEL Classification: C₆₃

Introduction

The rapid development experienced by the autonomous distributed information systems, and the emergence of the Web networks enable users to access an increasingly growing and highly heterogeneous data that does not necessarily meet their expectations for their needs and preferences or for the level

of quality information. The design and the development of a system that is both flexible and efficient based on mediator/adapter's architecture is necessary (Cali and al., 2003). The purpose of such a system is to intercept users requests and locate data and services which are the most appropriate to meet the demand of the client, to pass parameters, to invoke the service and to return the result in a transparent manner to users's via the adapters involved. The mediator thus provides a centralized sources view and adapters provide uniform access to sources (Kostadinov and al., 2005).

In another aspect, the concept of customization (Bouzeghoub and al., 2005) of the information access process improves the quality of information obtained through a mediator and will give the user adequate information to their preferences, interests, or more generally to their profile. In this paper, we discuss a technique for building the user's profile as part of a statistical approach using the user's behaviour as a source for predicting the implicit model. This technique is based specifically on the interaction between the profile dimensions represented by historical research sources integrated by the mediator and the user's interests. In this context, profiles and the interest can be much richer, because the sources are heterogeneous, with application areas that are complementary.

A possible improvement consists in incorporating the concept of ontology in the integration and interrogation process via the mediator (Dung Nguyen, 2004). Indeed, the creation and use of ontologies would evaluate the data meaning relatively to the exploitation by users. Thus, it will be possible to link the operations of extracting and presenting data based on users' profiles. Another contribution of the use of ontology would be a better evaluation and optimization of results. In the following sections, we develop in detail the concept of ontologies development and exploitation in the process of interaction and interrogation based on a classification of ontologies.

Application field and proposed integration scenario

To demonstrate the practical value of our methodology and bring up all its facets, we will apply it in the medical and health field where the treated data are of a great sensitivity, especially with the existence of a multitude sources specific to a medical fields and the difficulty of evaluating the reliability of medical information. But we point out that although the case study concerns the medical field, the concerns about the customization of integration and querying process of mediators using cooperatives ontologies are neither dedicated nor specific to this sector; methodology and the proposed solutions are applicable to a wide range of applications. We use throughout this article, an application example, relied on a medical application that tracks the different treatments of patients medical document (PMD): The PMD is a computerized file that contains information about the care was administered to a patient. It aims to facilitate patient access to their health data and to encourage information sharing and cooperation among health professionals.

In the practice of medicine, the exchange of data and knowledge in relation to a patient's medical document, among the different categories of users, creates a problem of dysfunction and disagreement in the treatment of medical document and analysis results. Indeed, the data treated by the medical systems are often used with more than one meaning in the same domain, as different conceptualizations must be specified and different names must be given to concepts in order to distinguish their meanings.

To address these problems, medical ontologies (Charlet, 2007) define a way to achieve efficient to store and communicate knowledge and general medical information about the patient. These ontologies have been appropriate to the available support for archiving, processing and transmission of knowledge, such as demand for the reuse and sharing of patient data.

We identify the first critical question to ask: How can we determine in an automatic, selective and optimized manner the certified medical information resources and have them interrogate through a specific system in order to satisfy all medical aspects for any questioning of potential users?

Hybrid mediator

In response to this question, we have proposed the realization of a hybrid integration system, combining both physical and virtual integration of data, capable of integrating multiple data sources specific to patients. These data can be used by patients, administrators, specialists and doctors. The architecture we developed is distributed across multiple data warehouses. Each warehouse (Hamdoun and al., 2007) (Hammer and al., 1995) manages the data in a specific region (analysis, consultation Radiology, etc.). The data for each warehouse are extracted from existing health systems in the region to build the patient's medical document. The user can also access the medical information resources on the web to complete its request. That part of interrogation is accomplished through a set of virtual mediators. Each mediator manages a set of sources whose theme is close. The hybrid mediator handles the task of scheduling the execution of sub-queries of the initial request between the data warehouse and the mediator. To automatically exploit the distributed resources among different data warehouses and mediators, the definition of a meta-ontology at the level of the hybrid mediator, an ontology of domain at the level of each mediator and an ontology for the data warehouse is necessary. Indeed, the definition and the use of these data by multiple types of users (Doctors, Patients, etc.) gives different semantic interpretations, and to harmonize the exploit of these data, the use of ontology concept is essential. The main purpose of this structuring is to optimize the interrogation phase in space and time.

Figure 1 shows the architecture of hybrid integration system. The core of the hybrid mediator is based on the infrastructure of AXMed mediator that has been developed in the LaSIT Laboratory (Ezziyyani and al., 2005).

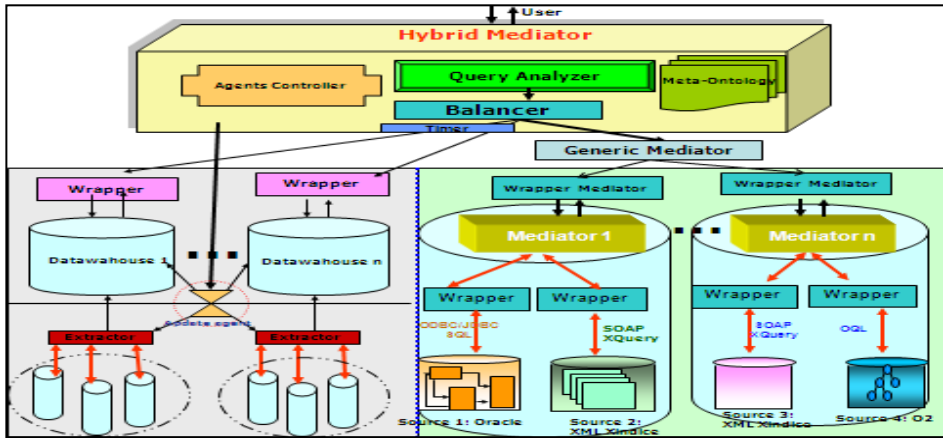


Fig. 1. Architecture of the hybrid system of mediation

Ontologies classification

In the context of the mediation system that we propose, ontologies have a threefold objective to represent in a generic and reusable manner a semantic of a domain.

On one hand, through a shared ontology, they provide a common understanding used to share knowledge or data from multiple resources to ensure the interoperability of information systems. They also allow a precise description of data sources using the standard concepts of domain, which helps prevent errors in interpretation because all sources have a common semantics described by the shared ontology (domainontology).

On the other hand, using the concepts of an ontology of profiles to describe the interest, as meta-information to ensure understanding and dynamic adaptation of requests. They provide a dynamic understanding of the data relating to user profiles (Kindo and al., 1997). The integration methodologies unify the views of different users by an ontology that is consistent with changes in the semantics of data based on user profiles and exploitation mode.

Besides the two goals mentioned above, ontologies can also customize and optimize the query process based on the semantics of the query. The semantics of the query is interpreted according to the contents of the queries ontology, which can limit the exploration of data sources to those who have information whose semantic corresponds to the query.

Finally, to ensure the knowledge sharing between the three ontologies mentioned before, we use a meta-ontology for describing the semantic link between different ontologies and the mapping between local ontologies and the global ontology.

Subsequently, we focus on the description of the different ontologies with the deployment mode.

Shared Ontology

The global ontology allows describing the application domain by providing a shared vocabulary between different sources integrated by the mediator. The semantic of each source to be integrated is described by its own ontology and the different ontologies are connected together by a shared common vocabulary (Visser and al., 1999). The space usage of ontologies is divided into two parts: the communication between people with varying points of view and different needs, and interoperability between users who need to exchange data and tools. The ability of these ontologies to share and reuse knowledge is exploited in the construction and use of knowledge-based systems. The usefulness of shared ontologies in the domain of data integration is that they establish semantic links between different elements of the sources (Jellouli and al., 2008). They can also serve as a model for querying the integrated system when used to describe the global Schema.

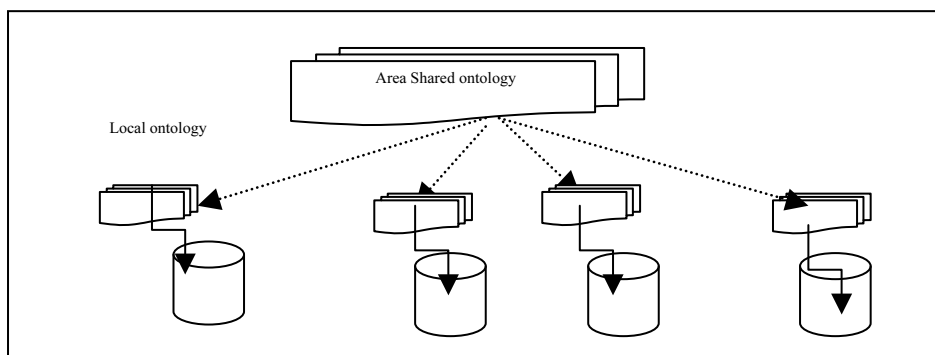


Fig. 2. *Shared ontology architecture*

Profile ontology

The information personalization is a major challenge for the computer industry. The relevance of the information provided, its intelligibility and its adaptation to user preferences and usage are a key factors for success or rejection of such information systems. For this, we focused on the modelling of user preferences in information research area in several heterogeneous resources integrated via mediators. So for the definition of an architecture for the user profile (Amato and al.) taking into account the dimension of focus based on historical interrogation, then the integration of this profile into an information search process to customize the results returned by the mediation system. The use of profile ontologies allows us to:

- facilitate access to multiple information sources;
- exchange information to improve, and participate in a collaborative process of distributed resolution;
- distribute and balance the workload.

Hierarchical organization of interests

The public or shared interest is common to all users, but can be customized dynamically as and when users query the mediation system forming appropriate interest centres to different groups of the system. Indeed, the public interest concerns a specific area (research or not), provided by experts, and will be used by the system for the construction of users interests classified by categories. These will include knowledge and data shared among a users group of the same mode of operation of the system concerned.

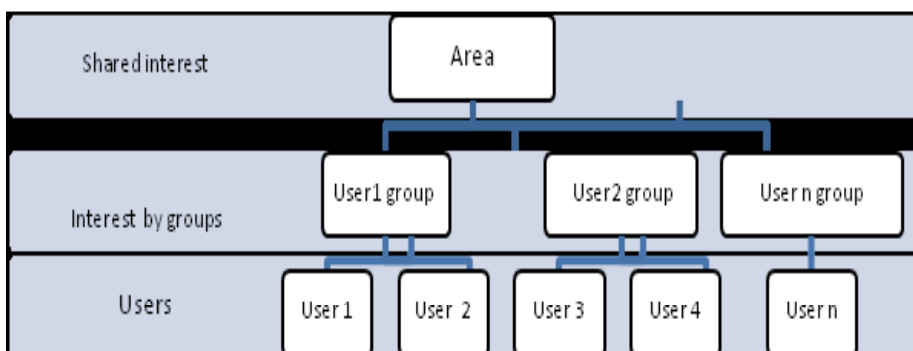


Fig. 3. *Hierarchy of interests*

In our application context, we are particularly interested in site users to manage online PMD. We identified three groups among those users for which our approach can improve the effectiveness of their work online: administrative, doctors and patients. The main common point of these users is ignorance of the accurate purposes of navigation when you start it or the composition of the original document of the PMD.

It is therefore necessary to compose the patient’s medical document not only in own way to each user, but also as and when the navigation of that user. To do this, the use of cooperative medical ontologies by reusing the techniques from personalization, customization and adaptive query allow optimizing resources and improving the query process of mediation systems.

Interest dimensions

The interest is to consolidate in a knowledge base the personalized research results in relation with the use profile. This knowledge is used by the monitoring tool for communicating the news of sources on a subject or in a specific area. The

interest is therefore a continuous updating of knowledge of a user or group of users vis-a-vis the data sources integrated by the mediator.

In order to evaluate the degree of change contexts related to the user interests, we describe a context with an adaptive ontology where the focus is described by four dimensions. The first represents the history of user interactions with the mediator. The second characterized its recurrent needs as information and is inferred and evolves from the first dimension. The third defines the security exploitation of interfaces and access to data sources. Finally, the fourth includes knowledge in the semantics, data and functionalities offered by the mediation system.

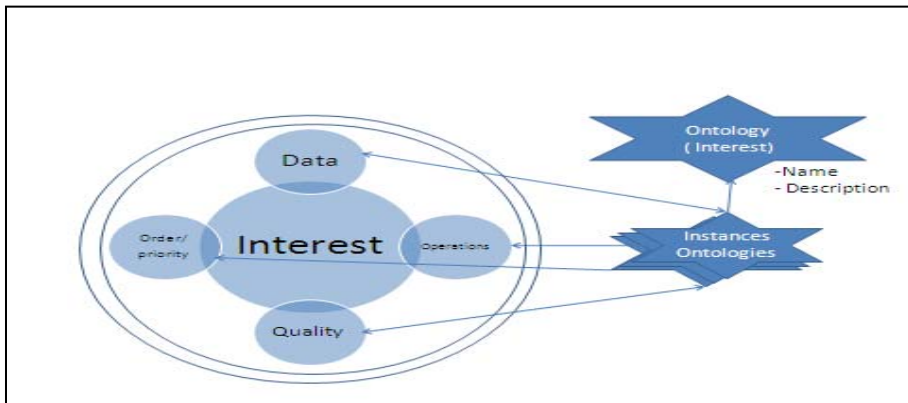


Fig. 4. *The interest*

Below is a class diagram of the focus that implements relationships between domains and users.

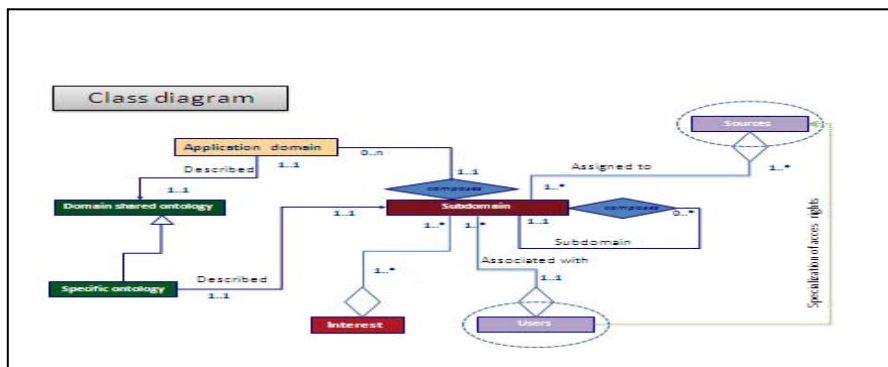


Fig. 5. *Class diagram of the interest*

Queries ontology

For this classification of ontologies, we were interested also in the consideration of users profiles in the interrogation process whose goal is to improve the relevance in terms of research results in various data sources integrated via the mediator. The solution we provide is based on the use of

ontologies to represent knowledge of the research area covered by queries and user profiles on the selected area. In this context, the query ontology can retrieve the desired information effectively and efficiently from a large collection of data. Especially for mediation systems, where the query is more complex and the answer is not correct. Mediation systems have the function to allow users to access heterogeneous and distributed data that contribute to a unifying response to user queries. Certainly, ontologies will improve the quality of access to this information. However, the overabundance of information and its wide availability has led to a deterioration in their performance both efficacy and efficiency. Indeed, as and when the global response is generating and the interviewed sources are diversifying, the mediation system delivers massive results in response to user queries. In that case, the user is confronted with an information overload in which it is difficult to distinguish pertinent information from secondary information, and even noise. In addition, the evaluation of a query is usually without considering the context and / or specific needs of the user who issued it. The same request made by two different users, produces the same results even if these users have different expectations.

To address this problem, firstly, the use of an evolutionary model of ontology and an adaptation process will allow ontologies to adapt to changing knowledge of an area by a user group. Then, the exploitation of this type of ontology to improve the process of interrogation by an incremental optimization algorithm (Figure 7). The parameters of this algorithm are the different structures and separate data sources, and the degree of importance of these entities to extract pertinent data.

Indeed, our ontology model is based on a oriented graph of dependence between entities of data sources integrated by the mediator. The graph defines an execution order of sub-queries after the phase of rewriting the query. Each node in the graph represents an entity of the global ontology of the area. The ontological approach is adopted in the modelling process of collecting data in a specific area of interest from the point of view of a user who queries the mediator in order to retrieve results from multiple sources. The process can be programmed to automatically update the facts of the ontology and optimize the path of execution graph by a user request.

The question that arises at this stage is how do we define an order of execution of sub-queries that is consistent with the query posed and provides pertinent and satisfactory response to the user?

To answer the question we take this example:

Let us suppose a doctor poses the following query: R: "I want to know the medications that the patient X may take".

The research process involves the execution order follows:

- Search all diseases of the patient X in the data warehouse which contains medical data of the patient X (according to its identifier).
- Search in the Health Integrated Web site of appropriate list of drugs prescribed for each disease.
- Selective search in the integrated pharmaceutical sites of compatibility of prescription drugs for each disease.

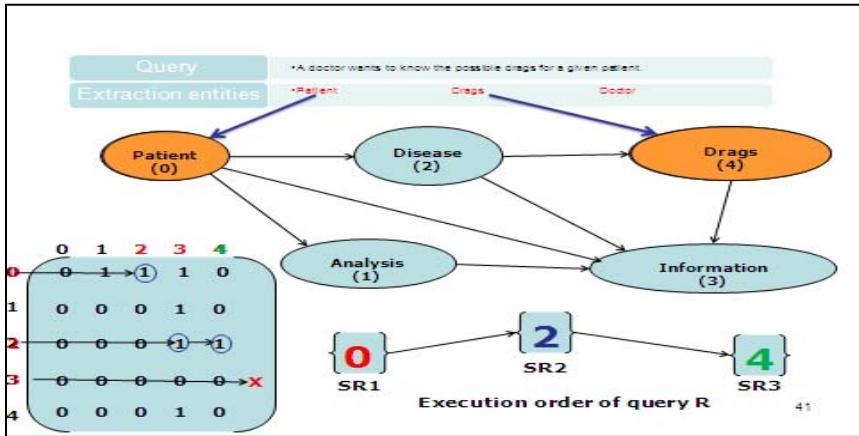


Fig. 6. Oriented graph of ordering entities and the corresponding matrix

The data search in the oriented graph of execution order passes in the first through the extraction of area model entities (medical area in our case). Then we proceed with the representation of these entities as a oriented graph which gives the logical order to be followed by the query. We construct the matrix corresponding to the graph which the intersection between the rows and the columns represents a path and we search the shortest path among possible paths that give a pertinent answer and satisfy the query posed by the user. A point to note is that the research data in our situation is incremental (Np Full), the algorithms that must operate in this type of research is very complicated, but since we have limited the number of sources that we will search by defining an execution order and all predefined ontologies by taking into account the user profile, the search becomes much less complicated, which shows the practical value of our methodology.

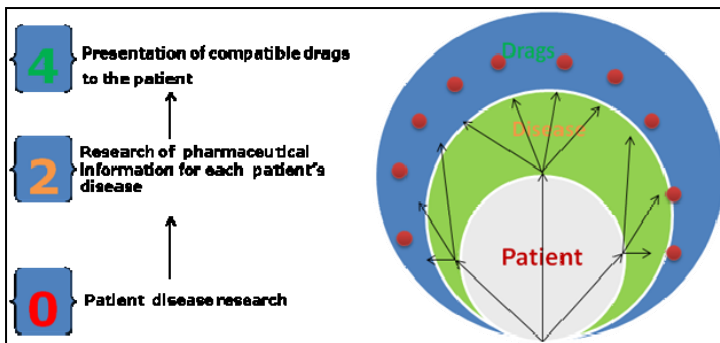


Fig. 7. Stages of research data

Meta-ontology

The Meta-ontology allows us to combine the basic generic knowledge in a shared ontology. The types of knowledge adapted to our context can be summarized into five types:

- Profile knowledge: They provide information on civil identification, geographical location and some characteristics.
- Mediator knowledge: They allow easy manipulation of the mediator by users.
- Area knowledge: This type concerns knowledge associated to services related to the area and sub-areas of application.
- Queries knowledge: They involve the elements necessary to establish the user's query, which is defined by a semantic basis of research and the research context.
- Restriction knowledge: These are global access restricting constraints to data of sources specific to the user.

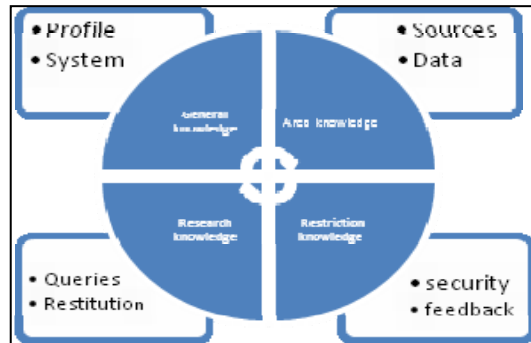


Fig. 8. *Meta-ontology*

Deployment Process

The process consists of intercepting user requests and modifying their behaviour using a set of functional adaptation operators described by the queries ontology. The strategy we have developed has two purposes: (i) integrating knowledge described by the domain ontology in the context of the users in an incremental way and (ii) ensuring the adaptation from a simple description of interest offered by the user dynamically. Indeed, the knowledge relatively to the dimensions of interest and personal data described by the profiles ontology are used to orient the user requests after the optimization and adaptation of integrated data sources. The adaptation data consist in transforming or replacing the data returned by the mediation system which is not usable in the considered context situation by other data adapted to the need of user profiles. This phase selects the sources expected to partially satisfy user requests. The interrogation of selected sources is preceded by an audit of access rights and permission systems defined by the security dimension of data described by the ontology of profiles.

Conclusion

The aim of our approach was to make the information available and optimal anywhere at any time via the mediator. The latter must be used in different contexts depending on the environment, the category of the user and his profile. However, one of the major problems of this type of system concerns the adaptation to the context of use. In an effort to be able to overcome these difficulties, we have proposed in this work a generic and evolutionary strategy for the adaptation of the mediators interfaces to the context of users by defining three types of ontologies.

In a perspective for a personalized access to the information via the mediators, we defined a model based on the classification and cooperation between ontologies for customization and optimization of integration process and interrogation. More precisely, the model is described through the interaction of two aspects. The first reflects the history of interactions with the mediator, represented by an ontology from the application and a users queries on the sources implicitly integrated in the successive search sessions. The second reflects the interests of the user automatically derived from the history of interactions. These interests evolve according to a strategy based on a measure of dependence between all types of users and sources included, to examine the sharing of profiles between users and implicit exchange of data between sources in the process of interrogation and search sequentially.

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ENVIRONMENTAL PROBLEMS IN TWO DEVELOPMENT REGIONS: REGION CENTER AND REGION BUCHAREST-ILFOV

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Abstract

The environmental problems are phenomena determined by essential modifications that are produced in nature under man's influence. Initially the environmental problems have a local origin, yet they affect large areas and finally become regional or global problems.

We experience a development crisis with a natural-human character, which gets worse the balance of compatibility between the natural environment and that created by man, with consequences which become irreversible in time and space, implying an increasingly large number of people being able to endanger life evolution at world level where: „Poverty is an enemy of the environment as big as the richness” (V. Tufescu, M. Tufescu, 1981).

Key-words: *environmental problems, regional analysis*

JEL Classification: Q15, Q20

Introduction

The environment represents the total range of natural conditions and elements: water, air, soil and subsoil, all the atmosphere strata, the totality of organic and inorganic matter, as well as the living beings, the material systems in action comprising all the previously mentioned elements, also including material and spiritual values.

Environment degradation represents one of the great problems that mankind is facing. This process presents a multitude of regional and national aspects, depending on the economic and social development level, as the environment can be positively and/or negatively affected both by excessive development and by underdevelopment.

Material and method

The paper intends to put together the main environmental problems from Region 7 Center and Region 8 Bucharest Ilfov.

The study was based on methods specific to selective research: identification of problem under research, delimitation of research framework, information collection, data processing, analysis and interpretation and drawing up the conclusions.

The information sources that have been used are the official data and the data obtained from field surveys conducted under a research project.

Results and discussions

Environmental problems, Region 7 Center

The region center consists of the following counties: Alba, Braşov, Covasna, Harghita, Mureş and Sibiu.

Due to its physical-geographic conditions, a wide range of **soils** exists in Region 7 Center, this diversity resulting from the complex action exercised by the lithological conditions, relief units, hydrological factors, as well as the topoclimatic factors.

In the period 2007-2009, a slight diminution of agricultural land area can be noticed in Region 7 Center. Throughout the investigated period, it can be noticed that the agricultural activities are carried out on two main land operation types, arable, on one hand, and pastures and hayfields, on the other hand.

Table 1

Agricultural land distribution by categories of use in Region 7 Center, in the period 2007-2009

Crt. No.	Category of use	Area (thousand ha)		
		2007	2008	2009
1.	Arable	762.813	764.479	762.344
2.	Pastures	663.772	662.763	662.225
3.	Natural pastures and hayfields	477.021	475.399	475.577
4.	Vineyards	9.119	9.250	8.793
5.	Orchards	13.415	13.244	13.685
Agricultural total		1,926.140	1,925.135	1,922.624

Source: Reports on environmental factor situation in Region 7 Center, RAEP Sibiu, 2007, 2008 and 2009

The main constraints to soil quality in region 7 Center are determined by: acidity, fine texture, moisture excess, non-uniformity of land, erosion, landslides, slope, etc. For example, in Covasna county, the main constraint is represented by the sanitary protection areas that are found around the drinking water supply wells of towns, as well as of the other localities. In Harghita county, the most important constraints of soil quality are the following: moisture excess, depth of phreatic water layer, land slope, edaphic volume, taking into consideration the fact that from the relief point of view, the county belongs to the hilly and mountain area. For Mureş county, there are constraints related to soil supply in humus, nitrogen, phosphorous and potassium. In Sibiu county, the main constraints to soil quality are determined by: acidity, moisture excess, depth erosion, landslides and moisture excess, anthropic degradation and pollution of soils.

The industrial activities and agriculture are the main **air** pollution factors in the Region 7 Center.

In Braşov county there are many economic operators who carry out their activity in different industrial branches and the critical areas with regard to air pollution are the following:

- the central area of the county, consisting of Braşov municipality and the neighbouring areas: Săcele, Cristian, Codlea;
- the central-northern area of the county, with the localities Hoghiz, Racoş, Rupea;
- the central-western area of the county, with the localities Făgăraş and Victoria.

In Harghita county there are critical areas under air pollution:

- industrial activity areas: in Miercurea Ciuc locality (due to the Mining Exploitation SC Exploatarea Minieră Harghita SA Miercurea Ciuc), in Gheorghieni (due to the working point Voşlobeni);
- refuse dumps remained after the mining and geological exploitations from SC Bălan SA (Sântimbru), Jolotca, Borsec, Tulgheş, Heveder, Belcina, Cianod.

An important air pollution source in Mureş county is represented by SC Azomureş SA where the maximum accepted limit of ammonia is often exceeded.

In Sibiu county, due to historical pollution (over 60 years) and to recent pollution, the Coşşa Mică area is highly affected by air pollution, being characterized by inadequate quality of ambient air. SC SOMETRA SA is the main polluter in Coşşa Mică, this being a company with non-ferrous metallurgy profile. The negative impact of sulphur dioxide emissions and dust with heavy metals is quite significant among the environmental factors in the area.

The surface waters were monitored in Region 7 Center, on a total length of 2,891.2 km river sections.

The surface waters in Region 7 Center mainly fall into quality classes I and II, and as a result these water categories can be used as drinking water sources.

Table 2

Length of river sections in Region 7 Center, by quality classes, in the period 2007-2009

Year	Total km	Class I	Class II	Class III	Class IV	Class V
2007	2,981.2	1,090	1,487.23	247.79	122	34
2008	2,891.2	1,046	1,550.5	258.7	76	50
2009	2,891.2	1,039	1,486.2	260	60	46

Source: Reports on environment situation in Region 7 Center, RAEP Sibiu, 2007, 2008 and 2009.

In the period 2007-2009, for the **ground waters**, 159 drillings in Region 7 Center were monitored by chemical, biologic and bacteriologic tests. In Harghita county (12 drillings) were within the accepted quality limits. Yet critical zones were found as regards ground water pollution; thus, in Alba county (18 drillings)

the accepted limits were exceeded in the following indicators: conductivity, dissolved manganese, sulphates, chlorides, nitrates, nickel, dissolved cadmium, total hardness, organic substances; in Braşov county (28 drillings) were under the legal limits, except for a few indicators: ammonium, total iron, total hardness, lead, conductivity; in Covasna county (26 drillings) the limits were exceeded in the indicators: manganese, iron, ammonium, lead, conductivity; in Mureş county (59 drillings) it was found out that ground waters cannot be included in the drinking water category; in Sibiu county (16 drillings) it was found that the ground waters have an inadequate quality in the rural areas, as the liquid waste reach the ground layers directly through the non-impermeable latrines or the street drainage ditches, as well as indirectly, from the manure storage places and from the domestic waste storage places.

In the investigated period, the situation of **forests** was generally good, the main pressures exercised upon forest being of anthropic nature, namely: forest operations without respecting the legal provisions in the field, fires, illegal cuttings of timber, constructions built on forestland or in adjacent areas, illegal storage of domestic or industrial waste in the neighbouring areas of localities, uncontrolled tourism activities.

Table 3

**Forestland evolution in the counties from Region 7 Center,
in the period 2007-2009**

		thousand ha		
Nr. crt.	Judeţul	2007	2008	2009
1.	Alba	227.885	206.800	206.800
2.	Braşov	174.565	174.195	204.323
3.	Covasna	165.161	165.161	165.161
4.	Harghita	237.681	225.024	225.024
5.	Mureş	208.711	208.079	208.779
6.	Sibiu	204.352	203.220	201.057
Centru Region 7 Center total		1,218.355	1,182.479	1,211.144

Source: own calculations and data from the Reports on environmental factors in Region 7 Center, RAEP Sibiu, years 2007, 2008 and 2009.

Environmental problems in Region 8 Bucharest-Ilfov

Region 8 Bucharest-Ilfov consists of Bucharest Municipality, Romania's capital and the county Ilfov.

In Region 8 Bucharest-Ilfov, the most common types of **soils** are the clay soils, followed by Mollisols and younger soils.

Table 4

**Agricultural land distribution by categories of use, in Region 8
Bucharest-Ilfov, in the period 2007-2009**

Crt. no.	Category of use	Area – ha		
		2007	2008	2009
1.	Arable	107452	105868	102012
2.	Pastures	2342	2382	1973
3.	Natural pastures and hayfields	83	58	58
4.	Vineyards	1571	1445	1412
5.	Orchards	1184	977	847
Agricultural total		112632	110730	106302

Source: Reports on environmental factors in Region 8 Bucharest-Ilfov, RAEP Bucharest-Ilfov, years 2007, 2008 and 2009.

In the period 2007-2009, the agricultural land area decreased by 5.6%, by categories of use the largest decline being found in the areas under natural pastures and hayfields, followed by the land areas under orchards. In the Region 8 Bucharest-Ilfov, the main type of agricultural operation is arable land farming.

In the Region Bucharest-Ilfov, the soil pollution sources are the following: dry and wet deposits from the atmosphere, inadequate storage of domestic and industrial wastes and residues on areas that are not adequately equipped, discharge of sludge, slimes and waste water on agricultural land areas or on other areas; excessive use of chemicals on agricultural land and crops; soil degradation by physical factors, the action of which is favoured by wrong practices (deforestation, absence of consolidation and defense works, etc.); lead pollution specific for the areas with heavy road traffic, mainly in the city of Bucharest.

On the area of Bucharest municipality, the soils experienced strong anthropic modifications, the natural soil types being currently found only on limited areas in certain parks and on peripheral areas. The first stage of strong anthropic modifications was the result of all kind of constructions, by which practically other types of soils were created. The second stage was initiated by the massive industrialization and road traffic intensification.

The prevailing soils in the Ilfov county generally present a relatively low vulnerability to many polluting agents due to the good buffering capacity. Soil destruction processes by excavation works were found in the Argeş canal area and by the storage of garbage or of other construction materials in different areas. On smaller areas soils were polluted with waste water, sludge from the water treatment stations and organic residues from the large livestock farms from Periş, Jilava, Buftea.

Air pollution in Region 8 Bucharest-Ilfov has a specific character, in the first place due to the emission conditions, to the existence of multiple sources respectively, different heights of pollution sources, as well as a non-uniform distribution of these sources, scattered throughout the region territory.

The air pollution sources can be grouped into several large categories:

- industrial objectives – there is a wide range of substances released from the technological processes into the atmosphere, namely organic and inorganic powders that also include metals, gases and vapours, organic solvents, soot;

- road traffic: the air pollution caused by vehicles is a mixture of several hundreds of different compounds. The air pollution levels caused by road traffic are quite variable in time and space. The concentrations of air pollutants are higher in the areas with traffic roads bordered by high buildings under compact form, which prevent the dispersion of pollutants;

- construction sites and concrete mixers: the share of construction activities increased very much, the construction sites and concrete mixers remaining potential air pollution sources, mainly with dust;

- thermal power stations: the thermal power stations represent main air pollution sources, by their operation on liquid fuels with a high content of sulphur, releasing significant amounts of SO₂, NO_x, CO, CO₂, dust, smoke, light ashes into the atmosphere.

Under the National Water Integrated Monitoring System, S.G.A. Ilfov-Bucharest, **water** quality in the Argeş, Ialomiţa and Mostiştea hydrographic basins is monitored. The situation of inner rivers was monitored, in the period 2007-2009, in 12 surveillance sections in the Argeş hydrographic basin and in 2 surveillance sections in the hydrographic Ialomiţa basin.

Table 5

**Quality classes of waters from Argeş hydrographic basin,
in the period 2007-2009**

Nr. crt.	River/sections	2007	2008	2009
1	Argeş – 3 sections	II	III	II
2	Dâmboviţa – 5 sections	IV	V	IV
3	Colentina – 1 section	III	III	III
4	Ilfov – 3 sections	III	IV	II

Source: Reports on environmental factors in Region 8 Bucharest-Ilfov, RAEP Bucharest-Ilfov, years 2007, 2008 and 2009.

In Ialomiţa hydrographic basin, the two sections under monitoring fell into quality class III in the period 2007-2009.

Only waters that fall into the quality categories I and II can be used as drinking water sources.

In the period 2007-2009, 11 drillings were monitored, representative for the national observation network, and no exceeding of the threshold values were found.

In the period 2007-2009, the **forestland** of Region 8 Bucharest-Ilfov continuously decreased, the main reason being the intensification of construction activities in the peripheral areas of Bucharest municipality and in Ilfov county in this period.

Table 6

**Forestland area in Region 8 Bucharest, Ilfov,
in the period 2007-2009**

	2007	2008	2009
Forestland – ha, out of which:	20711	20413	20323
Ilfov county	19928	19663	19653
Bucharest municipality	783	750	670

Source: Reports on environmental factors in Region 8 Bucharest-Ilfov, RAEP Bucharest-Ilfov, years 2007, 2008 and 2009.

In the investigated period, forests were subject to increasing pressures from the population's side. Illegal cuttings, uncertain and continuously changing legal framework brought about severe losses to forests. Forest administration under silvicultural regime contributes to forestland sustainable management.

Conclusions

The old specific occupations in the Region 7 Center, such as mining, animal husbandry, timber exploitation and quarrying, which have been carried out in this zone for centuries, resulted in an intense exploitation of natural resources and implicitly led to environment degradation phenomena. In time, the industrial activities added to these traditional activities, which amplified the pollution phenomena, by generating secondary processes, which by accumulation endanger people's comfort and health.

In Region 8 Bucharest-Ilfov, industry, transport, agriculture and the expansion of the construction sector are the main environment pollution sources.

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AID FOR REGIONAL DEVELOPMENT

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Abstract

The issue of regional development has captured the attention of researchers long UMA, but some trends in contemporary economy and international division of labor, cooperation, integration and globalization bring it back to the forefront of current theoretical and methodological concerns. Especially the process of European integration requires comprehensive and pragmatic approach, realistic subject (2, 3, 4).

Key-words: *public support, financial and monetary asymmetry, economic cooperation and development, border and inter-regional cooperation*

1. Origins and perspectives

The socio-economic theory, regardless of the orientation, trend or school, retains the fact that the present, but especially the close future pertain to an evolution towards a new type of civilization whose coordinates are only now being deciphered. During this exploration process, there are certain processes with a global character that cannot be omitted, such as the regionalism one, which influence the evolution and the development of all the states. In other words, the future of the human society can be approached from two different perspectives. On one hand, the perspective of the production factors necessary for the economic growth and development, meaning the resources. On the other hand, there is the perspective of the socio-economic system, the nature of the production relations, above the economic and social development level.

1.1. Definition of debt

The debt is simultaneously a symptom of an asymmetric world financial system and a cause for imbalances and poverty. For a long time, the debt was used internally and between countries as means to maintain power over the individuals and governments. Eurodad considers the debt as a political and ethical problem. Therefore we have to pressure for the annulment of the debts, disclosing the responsibilities of the creditors and sustaining the durable change of the international financial architecture.

Many countries have been caught in the pitfall of the debt against poverty during the last three decades. During the electoral campaign of the civil society it had an impact and it caused the annulment of certain debts, the general problem being the approach of the existent initiatives and mechanisms. The governments of the rich countries and the crediting institutions, such as The Paris Club, The World Bank and the IMF still have disproportionate power. A country with debts would still have today the same problems as three decades ago, so there is no international procedure to redefine the difficulties of the sovereign debt in an equitable, predictable and transparent way.

1.2. The perception of aid

Annually, approximately 600,000,000,000 \$ flow from the Southern countries to the Northern ones. The public aid for development is an important element for trying to insure more money to the flows in the other direction. The governments of the rich countries agreed to improve the extent of their aid to 0.7% of the GNP. They also agreed to improve the aid's flow in order to make sure that a great amount of it reaches the poorest countries of the world. The European governments have always been important contributors and the ratio of the aid provided by the Europeans is more and more important (up to 60% of the world aid). Unfortunately, a great amount of the public aid never reaches the poor, a lot of it being channeled to geopolitical purposes. The exigencies of the fund receivers blame the development of a bureaucratic network with multiple missions such as the report and strategy elaboration of certain initiatives meant to help the Southern governments and the civil society groups decide how much of the money should be spent.

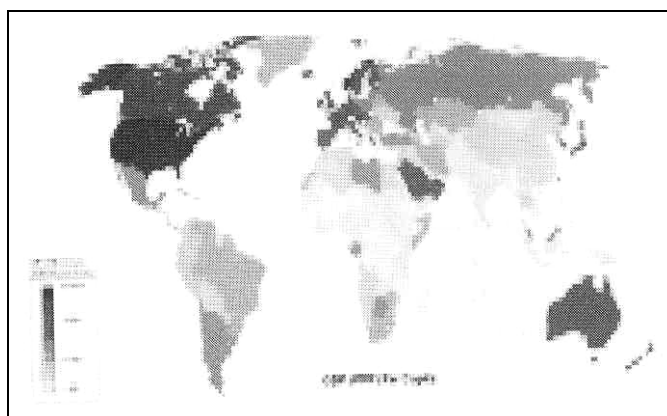


Fig. 1. World's map

2. *Empirical and systematic in the regional approach*

The regional science is a field of the social sciences that regards the analytical approaches of the specific urban, rural or regional issues. The topics of the regional science enclose, but are not limited to the theory of localization or of the spatial economy, the shaping of the location, the transport, the migration analysis, the use of the land and the urban development, the inter-industrial analysis, the environment and ecological analysis, the management of the resources, the urban and regional policy analysis, the analysis of the geographic information systems and the analysis of the spatial data. Broadly speaking, any analysis in social sciences having a spatial dimension is enclosed in the regional sciences. The regional science was established in 1940, when certain economists started to be unsatisfied with the economic analysis of the regional development level and decided to update it. At the beginning of this era, the founders of the regional science should have built up the interest of the people preoccupied by a great variety of disciplines. Walter Isard's aggressive campaigns promoting the "objective and scientific analysis" of the colonization, the industrial localization and the urban development origin in the official regional science. Isard aimed at the main universities and had an assiduous campaign. As a consequence, in 1954, the Association of the Regional Science was founded, when the core of the scientists and practitioners held their first meetings independent of the ones held initially by the annual meetings of the American Economics Association. One of the reasons for organizing an independent meeting was, without a doubt, the group's will to extend the new science beyond the restrictive world by reuniting the economists and the representatives of the natural sciences, psychologists, anthropologists, jurists, sociologists, politologists, planners and geographers in a club. Known today as the Regional Science Association International-RSAI, it supports the sub-national and international associations, magazines and a conference circuit (especially in North America, continental Europe, Japan and Korea). The adhesions to RSAI continue.

The regional science was founded by Walter Christaller's work entitled *Die Zentralen Orte in Süddeutschland* (published in 1933), soon followed by Tord Palander, with *Zur Beiträge Standortstheorie* and Edgar M. Hoover (1935) with two works: *Théorie de la localisation et le cui ret industrie de la chaussure* (1938) and *La localisation des activités économiques* (1948). Other important publications: *La théorie de la concurrence monopolistique* (1950) by Edward H. Chamberlin; *Espaces économique: théorie et application* (1950) by Torsten Hägerstrand; *La Situation de la production agricole* (1954) by Edgar S. Dunn; *L'économie de la Ville* (1954) by Lösch Aout; *Des études de l'économie des transports* (1956) by Martin J. Backmann, McGuire CB and Winston B. l'Clifford; *Emplacement de l'usine en théorie e ten pratique* (1956) by Melvin L. Greenhut; *Théorie économique et régions sous-développées* (1958) by Albert O. Hirschman; *History of Spatial Economic Theory* (1958) by Claude Ponsard. Nonetheless, Walter Isard's first book from 1956 entitled *Emplacement et l'espace Economie*,

which appealed to a lot of people and his third book, *Les methods d'analyse régionale*, published in 1960, make him appear as the founder of this field.

3. *The aid and cooperation for development*

Also known as technical assistance, international aid, foreign aid, public aid for development or external aid, this is the aid given by the governments and other organisms in order to sustain the economical, environmental, social and political development of the country. It is different of the humanitarian aid, as it highlights the poverty reduction on the long term. The cooperation for development, term used, for example, by the World Health Organisation (WHO/ OMS) is used to express the idea that there should be a partnership between the donor and the receiver, more than the traditional situation when the relation was dominated by the wealth and specialised knowledge of one of the parties. The greatest amount of the aid for development comes from the western industrialized countries, but there are also poor countries contributing to the aid as well. The aid can be bilateral: given directly by one country to another or multilateral: proposed by a donor country to an international organisation such as the World Bank or the United Nations, that later repatriates it to developing countries. The ratio is currently of 70% bilateral to 30% multilateral.

If 80-85% of the aid comes from governmental sources, we note that the rest of 15-20% comes from the private sector – the non-governmental organisations, foundations and other organisms for development (Oxfam, for example). The repatriation of the funds received from the emigrants that work or live abroad are an important level of international transfer.

Some governments also include a military aid in their notion of foreign aid although many non-governmental organisations have the tendency to disapprove of it.

The public aid for development is a measure through which the government contributed to the aid established by the Development Assistance Committee (DAC) of the Organisation for Economic Co-operation and Development (OECD) in 1969. DAC gathers the 22 great donor countries.

3.1 Historic background

While the aid for development concept origins in the colonial era, the origin of the modern roots of the aid for development is found in the context subsequent to World War II and the Cold War: launched as a program on a large aid scale by the United States in 1948, the European Recovery Program or the Marshall Plan was conceived with the purpose to strengthen the links with the western countries and to decrease USSR's influence. This political logic was synthesized in the Truman doctrine, through which the American president Harry Truman, in his inaugural address in 1949, announcing the creation of the NATO, declared as unjustified the United States' aid for development towards the communist countries:

“In addition, we will provide military advice and equipment to free nations which will cooperate with us in the maintenance of peace and security. Fourth, we must embark on a bold new program for making the benefits of our scientific advances and industrial progress available for the improvement and growth of underdeveloped areas. More than half the people of the world are living in conditions approaching misery. Their food is inadequate. They are victims of disease. Their economic life is primitive and stagnant. Their poverty is a handicap and a threat both to them and to more prosperous areas. For the first time in history, humanity possesses the knowledge and the skill to relieve the suffering of these people.”

The aid for development had as purpose the proposition of technical solutions to the basic social problems without modifying the social structures. The United States violently opposed the moderate changes within the social structures, for example the agriculture reform in Guatemala in the 1950s.

3.2. The volume or the quantity

Most of the public aid for development comes from the 23 members of the Development Assistance Committee (DAC), adding up to 103.49 billion US dollars in 2007. Another 11.8 billion US dollars came from the European Commission while all the DAC countries gave only 5.56 billion US dollars. The main donors of DAC were the United States (21.8 billion), Germany (12.29 billion) and Japan (7.68 billion), while the most important non-members of DAC were Saudi Arabia (2 billions) and Turkey (0.6 billion). Nonetheless, the UN objective to donate 0.7% of the GNP as aid was not achieved. The United States (0.16% of the GNP) and Japan (0.17% of the GNP) were the least charitable. The only countries that reached the objective in 2007 were Norway (0.96% of the GNP), Sweden (0.93%), Luxembourg (0.91%) the Netherlands and Denmark (both with 0.81% of their GNP).

3.3. The quality value

The development aid is sometimes delivered by the means of support for the local aid projects for development. These projects do not even include a strict code of conduct. For certain projects, the ones providing the development aid do not comply with the local codes of conduct (for example, the sections of dress code, social interaction). For the developing countries, such issues are essential – hence, the failure of compliance may lead to serious offences and delay of the projects.

There are also debates upon the quality of this development aid, more than quality. For instance, the bound aid is always criticized, as it is believed that this is granted to be spent in the giver country or in a group of selected countries. The bound aid may increase the project aid by higher development costs (by 20-30%). Such aid is found fault with, because of the fact that the authorities may, on one hand, provide a large volume of development aid and, on the other hand, take it away by trading or political migration. *Commitment to Development Index* adopts measures of general policies of the authorities and evaluates the quality of the

development aid, instead of simply comparing the quantity of the public development aid.

4. *The cross-border, trans-national and inter-regional cooperation in Europe*

Within the programs of regional development taking place between 2007 and 2013, the development aid is made up of the financial support from the European financing and the co-financing of the targeted beneficiary countries. The regional development consists is provision of help and assistance to the less economically developed regions. The regional development may be national or international. The consequences and the weight given to the regional development may vary, in dependence with the definition of the region by its internal and external borders. The European Union concerns within the above-mentioned programs of regional development mainly regard the convergence objective, the European competition and employment.

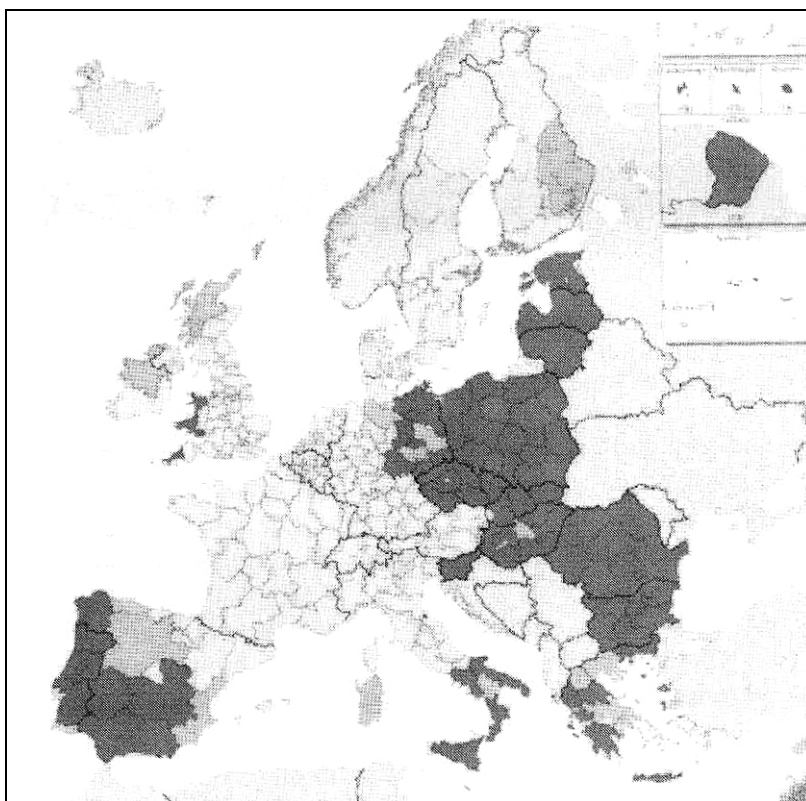


Fig. 2. Europe

4.1. The Romania-Bulgaria operational program

On December 18, 2007, the European Commission approved a cross-border program of cooperation between Romania and Bulgaria for 2007-2013. The program stipulates the community support for 15 regions, 7 in Romania (counties of Mehedinti, Dolj, Olt, Teleorman, Giurgiu, Calarasi and Constanta) and 7 in Bulgaria (districts of Vidin, Vratsa, Montana, Pleven, Veliko Tarnovo, Ruse Silistra and Dobrich). Besides them, Razgrad county in Bulgaria has been added to the list, according to the flexibility rule under the article 21 (1) of the European Regional Development Fund (ERDF).

The total budget of the program amounts to EUR 262 million, while the ERDF community aid is of EUR 218,000,000. This represents circa 2.5% in the community total investments meant to the European Community of territorial cooperation in the 2007-2013 cohesion policy objectives.

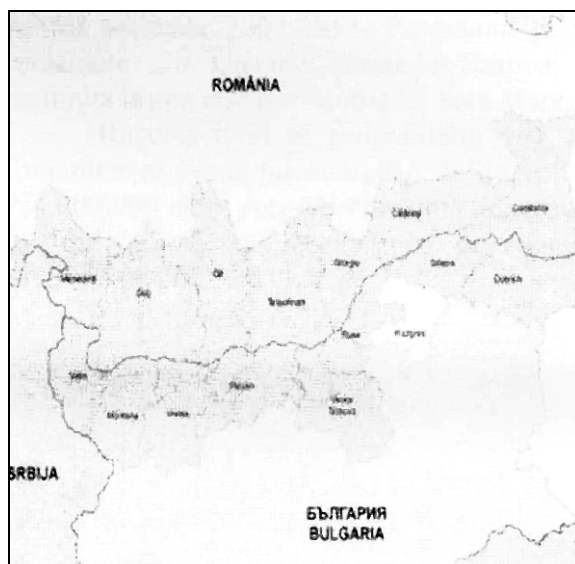


Fig. 3. The cross-border area between Romania and Bulgaria

4.1.1. The program objective and scope

The eligible area shares features with the cross-border areas where marginality and isolation from the economic and decision-making centers are deepened by the presence of borders that limit the economic, social and cultural exchanges and impacts the common, efficient and effective administration of the territory.

The global strategic objective is to gather the people together, the communities of the Romania-Bulgaria border areas and support them in jointly drafting a cooperation zone, based on the human, natural and environment resources and on the advantages that underlies on a durable process.

4.1.2. *Technical and financial information*

The main axes of the operation program and the percentage of separate financing within the total financing are: 1) Accessibility (36.4%); 2) Environment (34.3%); 3) Economic and social development (21.6%); 4) Technical assistance (7.7%). The funds have evolved as follows:

Table 1

Funds distribution on main axes (EUR)

Main axis	EU contribution	National public contribution	Total of public contribution
Accessibility	80,594,790	14,832,151	95,426,941
Environment	76,238,315	13,646,018	89,884,333
Economic and social development	47,921,227	8,577,497	56,498,724
Technical assistance	13,069,425	7,124,118	20,193,543
TOTAL	217,823,757	11,179,784	262,003,541

Source: Adaptation from statistical data and U.E. and OISD report, and also annual statistical reports from INS

4.2. **The Romania-Hungary operational program**

On December 21, 2007, the European Commission approved a cross-border program of cooperation between Romania and Hungary for 2007-2013. The program stipulates the community support for the following regions in Hungary: Szabolcs-Szatmar-Bereg, Hajdu-Bihar, Bekes, Csongrad and in Romania: Satu Mare, Bihor, Arad, Timis, etc.

The total budget of the program amounts to EUR 275 million, while the ERDF community aid is of EUR 224,000,000. This represents circa 2.6% of the community total investments meant to the European Community of territorial cooperation in the 2007-2013 cohesion policy objectives.

4.2.1. *The program objective and scope*

The global strategic objective is to gather the people together, the communities and companies of the Romania-Hungary border areas and support them in jointly drafting a cooperation zone, based on the advantages of a border area. This specific area is uniform and quite similar in economic and social conditions. It is rich in natural resources, abundant in rivers (a minus would be the danger of flooding and pollution of the border rivers). In terms of the main economic sectors, agriculture and food industry play an important role. As for the public services, the situation is heterogeneous: while most public services in Hungary are modern, there are numerous shortcomings in Romania. The access to wide band Internet is a major issue in the small localities on either side of the border.



Fig. 4. The cross-border area between Romania and Hungary

4.2.2. Technical and financial information

The main axes of the operation program and the percentage of separate financing within the total financing are: 1) Improvement of the key conditions for the joint durable development in the cooperation field (48.9%); 2) Consolidation of the economic and social cohesion in the border area (41.3%); 3) Technical assistance (9.8%). The funds have evolved as follows:

Table 2

Funds distribution on main axes (EUR)

Main axis	EU contribution	National public contribution	Total of public contribution
Improvement of the key conditions for the joint durable development in the cooperation field	114,482,217	20,202,744	134,684,961
Consolidation of the economic and social cohesion in the border area	96,524,222	17,033,686	113,557,908
Technical assistance	13,468,496	13,468,496	26,936,992
TOTAL	224,474,935	50,704,926	275,179,861

Source: Adaptation from statistical data and U.E. and OIISD report, and also annual statistical reports from INS

4.3. The South-eastern Europe operational program, plus Republic of Moldova

The countries included in this program are: Bulgaria, Czech Republic, Greece, Italy, Hungary, Austria, Romania, Slovenia, Slovakia, Albania, Bosnia-Herzegovina, Croatia, Macedonia, Republic of Moldova, Serbia, Ukraine. On December 20, 2007, the European Commission approved the 'South-eastern Europe' trans-national program of cooperation for 2007-2013. This program stipulates a community aid for 16 member states, candidate states, potential candidate states and third countries.



Fig. 5. The 'South-eastern Europe' trans-national eligible region

4.3.1. The program objective and scope.

The global strategic objective of the program is to improve the process of territorial, economic and social integration and to contribute to cohesion, stability and competition via developing trans-national partnerships. The program focuses on four priorities: innovation, environment, accessibility and durable urban development. This is a tangible opportunity for the western Balkans to get close to the European Union and strengthen the relations with the EU neighboring countries.

The region is the target of a fundamental change in the economic and production structures, starting with the changes in 1990. While some regions, mainly the state capitals, have no difficulty adjusting to the new challenges, others are trying to reorient themselves. The regional disparities are essential for the program area in terms of the economic strength, innovation, competition and accessibility between the urban and rural areas.

4.3.2. Technical and financial information

The main axes of the operation program and the percentage of separate financing within the total financing are: 1) Boosting of innovation and entrepreneurship; 2) Environment protection and improvement; 3) Increase of

accessibility; 4) Development of trans-national synergies for the durable development areas; 5) Technical assistance for support and consolidation of the program implementation features and institutional reinforcement. The funds have evolved as follows:

Table 3

Funds distribution on main axes (EUR)

Main axis	EU contribution	National public contribution	Total of public contribution
Innovation	44,051,157	7,773,734	51,824,891
Environment	53,739,828	9,483,499	63,223,327
Accessibility	55,160,834	9,734,265	64,895,099
Durable development areas	41,338,329	7,294,999	48,633,328
Technical assistance	12,401,497	4,133,832	16,535,329
TOTAL	206,691,645	38,420,329	245,111,974

Source: Adaptation from statistical data and U.E. and OISD report, and also annual statistical reports from INS

Conclusions

The concern for the regional development is not a recent one. It has provided ideas for building the regional science. The development aids aim to erase the disparities among the world areas, even though not always successfully. At the present time, the Western Europe has created regional programs that are meant to harmonize the inter-human relations, to improve the environment, to develop the innovation movement, etc. The aids for the regional development place Romania and Republic of Moldova into different community programs. There should be a higher awareness provided by such programs that are supported via European funds.

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IV. ECONOMIC BENEFITS OF MANAGEMENT IMPROVEMENT

GREEN ACCOUNTING – A NEW DIMENSION IN THE PERFORMANCE AND ACTIVITY REPORTING OF THE ENTERPRISE

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Abstract

As the title suggests, the article aims to go beyond traditional accounting that we are used to, towards a new dimensions of it, known as green accounting.

In this report we sought to emphasize the role, the importance of green accounting, which must be seen as a complement to traditional accounting.

In the context of green accounting, we expanded the concept of performance beyond the financial dimension, towards the following dimensions: economic, social and environmental, which we have explained and argued.

We presented various models of reporting, which can be used by companies to communicate information related to sustainability, which complement the information provided by traditional financial statements.

We also made a presentation of the most important international and European bodies recognized for promoting the publication of information on sustainable development, in their conceptual frame development finding references influences of the accounting international and American. We reviewed a series of indicators of sustainable development.

We have shown and argued that the same trend of promoting the publication of information on sustainable development can also be found at European level, and here we had in mind the Directive regarding the modernization of the European Accounting Directives, and also the current legislation no. 3055/2009 order OMFP part of the Romanian accounting reporting.

Key-words: *green accounting, sustainable development, economic performance, environmental performance, social performance, global performance, reporting models, Bodies-in promoting sustainable development of information published*

JEL Classification: M_{40} , M_{41}

Introduction

Starting from the reality that, in today's economy, the financial point of view is not the most important to assess performance, the entity management must take into account the social, economic and environmental impact exercised over any entity that is interested in company results.

What is the role of green accounting and how can it be defined?

Green accounting *has the role* of systematically considering the facts about protecting and restoring the natural environment by respecting the traditional role

of accounting and of taking into account flows and risks of the natural environment, communicate a true picture of enterprise users. Therefore, in this report we sought to emphasize the role, the importance of green accounting, which must be seen as a complement to traditional accounting.

Also, green accounting has to be considered more than a passive recording instrument for immediate or future flows, certain or potential, but also a lever to encourage enterprises towards activities and strategies that are consistent with sustainable development.

Green accounting is dedicated to both external users and internal management of the enterprise.

Thus, *external green accounting* aims at presenting information about the natural environment:

- in the financial statements (by introducing the green fields in the balance sheet, profit and loss account or in the notes);
- in the intermediate management balances (the net present value calculation takes into account the consumption of natural resources);
- in the annual activity reports, or in a specific report on the natural environment.

National green accounting has as main objective the production of useful information for management decision-making enterprise.

What is the merit and importance of green accounting?

The merit and importance of green accounting is that business classical performance reporting goes beyond financial dimension, thus completing the concept of performance with two new dimensions, environmental and social.

1. From financial performance to global performance

In current times, the major objective of an economic entity is not anymore the simple procurance of profit.

More and more entities have begun to approach the concept of TBL (Triple Bottom Line), a concept that defines the performance at three levels: economic, environmental and social.

Now, if one ignores the social and environmental issues, especially large corporations, they risk losing market shares on the international market, paying the costs for having an ecological area of activity, and having to allocate large sums to control losses to regain consumer confidence.

1.1. The economic dimension of performance

This includes all aspects of the entity's economic interactions, including traditional indicators used in financial accounting, but also intangible items that do not normally occur in the financial statements.

Financial indicators mainly refer to the profitability of an entity and are intended to provide information both for entity management and its shareholders.

In the context of sustainability reporting, economic indicators focus more on how an entity affects the users it economically interacts with, directly or indirectly.

Therefore, the main purpose of measuring economic performance is highlighting the changes in the economic status of users, as a consequence of the activity of the entity, and not just recording the changes in the entity's financial condition.

1.2. *The environmental dimension of performance*

This concerns the impact of an entity on natural systems, including ecosystems, soil, air, water. Entities are encouraged to report this type of performance both in absolute and in relative values.

Absolute values give an idea about the size or impact of the usage, allowing the user to analyze performance in the context of larger systems.

Relative values illustrate the efficiency of the entity and allow the comparison between entities of different sizes.

Environmental performance includes information which characterizes: the amount of energy consumed and its origin, the treatments applied to resources, to emissions, waste, and residues management, the way in which the earth is exploited, the management of the environment in which the entity exists and operates.

Green accounting aims to identify and apply methods of accounting for specific elements of the natural environment, very close to reality results.

We can illustrate the accounting for greenhouse gas emissions shares based on French legislation in this field.

Thus, for each facility that has authorization to emit greenhouse gases, the company is awarded, for a certain period, with allowances which are granted every year over that period.

In the Notes of the financial situations, the company must provide the rates that are to be received until the end of the period. Allowances, being transferable, had led to the creation of a specific markets on which they can be traded (example: London Exchange).

At the end of each year, the company must repay to the state a number of allowances equal to the total emissions of greenhouse gas of its premises, allowances that can be received from the state or if they were insufficient, the shares purchased in the market.

For industrial enterprises, intangible assets correspond to emission allowances, and for commercial establishments these can also be purchased and granted financial instruments.

Good environmental practice results from a good economic practice which generates economic efficiency through friendly environmental technologies, products, services compatible with the environment, by conserving natural resources and energy.

The control and minimization of the environmental impact of the entity's activity by reducing, reusing and recycling become more and more important goals for the economic entities.

The activity of most entities that present environmental reports is certified by the management standards such as ISO 14001.

1.3. *The social dimension of performance*

This can be measured by analyzing the interactions between the entity, the committed human resource and any other parties engaged in the process.

Social performance indicators include: relations between employees, labor and human resources safety, the salary/cost of living report, the elimination of discrimination, respect for the local community, the impact on community's development, etc.

Many of the social issues covered by this type of performance are not easy to quantify, so that a number of social indicators are qualitative measures of the systems and activities of an entity such as policies, procedures and management practices.

As a result of studying many sets of companies from different industrial branches, the general trend discovered was *a positive relationship between environmental performance and economic performance*.

The relationship between eco-performance, financial performance and economic benefits for various environmental entities, pointing out a positive relationship between these variables was also researched.

The study also showed that positive relationship between eco-performance and financial performance is stronger when there are benefits induced by environmental requirements.

It was also found that improving environmental performance is associated with reduced economic performance. Moreover, the economic benefits, generated as a result of the initiatives to improve environmental performance, increase as the entity's environmental performance is improving.

We support a central feature that *the evolution of the activity of the entities organized on the environmental protection principles provides the economic sustainability, organization that has direct positive effects on economic performance growth*.

The environmental issues influence both costs and revenues of an entity. We need not abandoned the hypothesis that *economic performance ensures environmental performance*.

Here is the schematic relationship between environmental performance and economic performance:

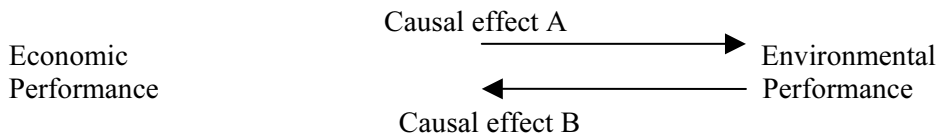


Fig.1. *Environmental performance – economic performance relationship*

Source: Schaltegger, S, and Synnestvedt, T, *The link between green and economic success: Environmental management as the crucial trigger between environmental and economic performance* (Journal of Environment Management, Vol. 65, 2002), p. 340.

In the environmental performance – economic performance relationship, we find an A causal effect which may explain the effects of the performance measured by means of the financial indicators on the management based on the

environmental requirements but also vice versa, a B causal effect which explains the economic performance improved through a coherent environmental performance improvement strategy.

2. Social and environmental reporting information. Reporting models

Corporate social and environmental reporting creates benefits for investors by reducing risks and by increasing profits. The research has shown that *Annual reports* are one of the most efficiently methods of presenting such information to investors.

Some leading companies have already begun to experience the merging of sustainability reports and financial reports in a single Annual report.

Even with separate reporting there is substantial value and opportunities through references or cross references.

Certain categories of entities required by financial reporting standards can and should incorporate qualitative and sustainable information. For example, reducing waste tendencies which can lead to cost reductions may be presented as an expense in financial statements, while the benefits of productive use of waste reductions can be recognized as revenue.

Debts arising from vulnerability to changes in environmental regulations, or international labor conventions can be recognized in the balance sheet.

At a more general level, economic, social and environment tendencies can be presented in the notes by detailing and analysing of future risks and uncertainties.

As *Reporting models* used for communicating information about sustainability, we can illustrate:

1. *The list of performance indicators* for a specific accountancy period (whose utility is enhanced by providing a standard value in order to achieve comparisons);

2. *The situation of natural capital* that can be broken down into these categories:

- Critical natural capital: the ozone layer, rain forests, biodiversity;
- Non-renewable natural capital and irreplaceable: oil, mineral resources etc.
- Non-renewable natural capital, but replaceable: waste recycling, energy consumption;
- Renewable natural capital: plantations, fisheries etc.

3. *Input-output analysis*: (keeps track of physical flows made of materials and energy inputs on the one hand, and products and wastes outputs, on the other hand, measured in physical units).

4. *Life cycle analysis*.

5. *List of violations by non-compliance to legislative requirements*.

6. *Descriptions of social and environmental impact*.

It should be noted that the monetary standard assessment may cover only the economic dimension of reporting.

In order to assess social and environmental elements the usage of different units of measure will be necessary, because imposing the monetary unit can lead to

a false representation and the underestimation of the impact compared to economical aspects. A better maintenance has a qualitative or descriptive reference.

3. European and international bodies in promoting the publishing of information regarding the sustainable development

Currently, there are several reporting bodies, the most important being: Global Reporting Initiative (GRI), United Nations Environmental Programme (UNEP), Public Environmental Reporting Initiative (PERI), Fédération des Experts-Comptables Européenne (FECE).

GRI is an international organization whose purpose is to promote the publication of information on sustainable development.

The adoption of the texts emitted by GRI results from voluntary intercessions so far existing no disposition requiring the application of it.

The Guideline developed by GRI does not aim to replace the current applicable accounting standards, *but to provide a basis to meet the credibility and relevance requirements in non-financial reporting, that supplement the financial statements.*

It also aims to advance the quality of a social and environmental reporting at the level of comparability, rigor and verifiability specific to the financial reporting.

In developing its conceptual framework, GRI has inspired from the international accounting (IASB) and U.S. (FASB) reference.

The basic principles of this conceptual framework can be summarized as follows:

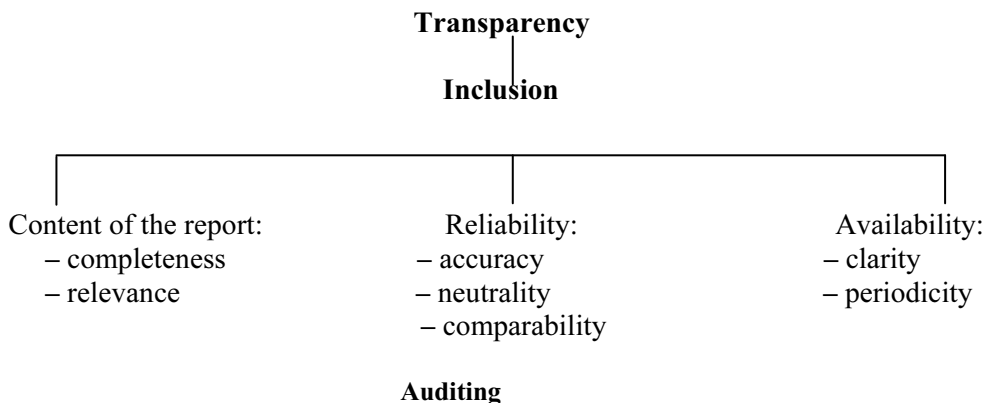


Fig. 2. The basic principles of this conceptual framework

As the objective of financial statements is to provide a true financial position, the performance and financial position of the company, the objective of social and conceptual environment is to provide a balanced and reasonable picture of the pointed areas: economic, social and ecological.

The Guideline developed by GRI provides 97 indicators relating to: financial performance (13), social performance (49), performance on the natural environment (35).

Natural environmental indicators recommended by GRI, to 35 in number, are grouped under the three main themes as shown below:

Table 1

Natural environmental indicators recommended by the GRI

Categories of indicators	Detailing directions of categories of indicators
Resource consumption	<ul style="list-style-type: none"> – Materials consumption; – Water consumption; – Energy consumption.
Impact of the entity activity on the natural environment	<ul style="list-style-type: none"> – Exploitation conditions; – Discharges in the air, water, soil, seriously affecting the natural environment; – Waste; – The amount of benefits paid by court order regarding the natural environment.
Measures taken by the entity to minimize these impacts	<ul style="list-style-type: none"> – Initiatives to exploit renewable energy sources and improve energy efficiency; – Objectives, programs, forecasts of protection and restoration of ecosystems and indigenous areas part of the degraded areas.

Source: www.globalreporting.org

Another very important international body that takes the trouble in promoting the publication of information on sustainable development is the United Nations.

It has developed a conceptual framework and methods of assessment and accounting for the consequences of the business activities on the natural environment.

As with the IFRS, conceptual framework of the UN comprises qualitative characteristics (these are the same as those of the general IASB Framework: understandability, relevance, reliability, comparability) and *basic concepts* which are the following:

- accrual accounting;
- independence of the financial exercises;
- congruence: consistency between financial information and disseminated environmental information;
- unambiguous precision regarding the indicators retained by the company in communicating information about the natural environment.

Indicators recommended by the UN regarding the natural environment are grouped into the following categories as shown below:

Indicators recommended by the UN regarding the natural environment

Categories of indicators	Detailing directions of categories of indicators
Water	<ul style="list-style-type: none"> – The amount of consumed water; – The nature of consumed water; – Water use
Energy	– The amount and nature of energy consumption, etc.
Greenhouse effect	– Greenhouse gas emissions from the use of petroleum, mineral consumption, etc
Ozone layer	<ul style="list-style-type: none"> – The consumption of goods with effect on the ozone blanket compared to net value added of the enterprise; – Information on the production, purchase, sale, storage, recycling goods that influence the ozone layer, etc.
Waste	<ul style="list-style-type: none"> – The nature and amount of waste produced; – Nature of the treatments used to reduce or suppress them, etc.

Source: www.globalreporting.org

The same trend of promoting the publication of information on sustainable development we also find on the agenda of the European Parliament, which ever since 2002 has come with the following proposals regarding the natural environment, namely:

- the existence within the IV Directive/EEC of a provision requiring companies to disclose social and environmental reports;
- the obligation of publishing reports on ecological and social environment for any company who wishing to be listed on the Stock Exchange;
- subjecting social and environmental reports to the audit process;
- the obligation of publishing these types of reports by all companies regardless of their size.

Thus, at European level, the Modernization Directive, designed to update the accounting requirements of modern accounting practices, also includes the requirements of reporting the non-financial performances. We take into consideration the introduction of the company's results and non-financial indicators, especially the information related to environmental and personnel problems, in the Annual report, for the analysis of the company's evolution.

In the recent years, the Romanian reporting accounting law (OMFP no.3055/2009) follows the trend of European and international tendencies, we find the requirements for the natural environment.

Thus, the OMPF no.3055/2009 requires that in the balance sheet, in the item “Other provisions” should also be included provisions made for expenditure for environmental protection, namely: air protection, used gas management, waste management, soil protection, biosphere and landscape protection, which shall be described in detail in the note, if they are significant.

Previous OMFP no.1752/2005, having the same name, did not contain such specification, making no reference regarding the publication of information on the natural environment.

Conclusions

The impact of economic entities on the environment and society is becoming increasingly important for managers, at any given time in the future, generating a number of present and future risks and uncertainties, which an economic entity must meet and therefore should include in public reports.

Given the more and more selective current conditions, in which the consumers show an increasing demand for products and services that do not harm the environment, economic entities find themselves in the situation in which they must report information about such features of their products and services.

Therefore, more and more entities have been repositioned regarding the economic, social and environmental reporting, becoming from spectators decision-makers. More and more entities have begun to approach, for a sustainable development of business, the TBL concept, a concept that complements the performance by its three levels: economic, environmental and social.

Also, organizations adopt business strategies to maintain environmental quality and to ensure a competitive advantage by increasing profitability. Thus, environmental and social reports published by large corporations, which indicates a sustainable development, became part of the information they publish.

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FADS IN MANAGEMENT AND THEIR POTENTIAL TO LEAD MANAGERS ON FALSE TRAILS

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Abstract

The increasing globalization, the explosion of the information age and all the changes on economic, financial and social level has affected the business environment. As a consequence, the organizations are trying to keep up with the competitive requests of the market, while the field of management is going through a revolution. The objective of this paper is to analyze the concept of fad, by underlying their potential negative effects when it comes to the performance of a business. The first section will present the role of managers in organizations and their attraction for fads. The second part will focus on the persons who spread these fads and the impact that unfounded beliefs about how to manage have upon a company. The last part of the paper presents the conclusions, by providing at the same time some solutions, so that managers do not feel in the trap of fads and their promoters.

Key-works: *fad, management, gurus, false, performance*

JEL Classification: M₁₀

Managers are playing a very important role (maybe the most important) in the organization, because through their decisions a successful business distinguishes from an unsuccessful one. They have the responsibility to help the companies to fulfill their objectives, both in terms of efficiency and effectiveness. Successful managers have to possess different skills. Du Gay et al. (1996) analyzed what a competent manager means and presented various qualities associated with performance, like: development orientation, achievement orientation, interpersonal search, self confidence, proactive orientation, flexibility, managing interaction, presentation impact, information search, and concept formation. In this world, where change is a feature of the contemporary management, the managers have to face many challenges, but it gives them the opportunity to make a difference because successful organizations don't just happen: they are managed to be that way. Because of the pressure, sometimes the managers have to search for help and appeal to specialists, like consultancy firms or business scholars. They follow these pieces of advice (the term used by the academics is fad) because of various

reasons, but the purpose is the same: the managers are trying to gain a competitive advantage, in order for the organization to survive in a turbulent business environment.

In general, when we say “fad” we think of a style, activity or interest which is popular for a short period of time (Cambridge dictionary’s definition). In management, scholars found different definitions of fads. For example, Furnham (2004) considers that a fad is a craze for something: a short time when there is an exaggerated zeal for a particular idea or practice. Fads are by definition short-lived. They go in one era and out the other. Abrahamson (1996) sees fads as relatively transitory collective beliefs disseminated by management fashion setters, that a management technique leads rational management progress.

Grint (1997) tried to explain this attraction for fads (he used the term fetish), by analyzing five approaches. The first approach is the rational approach, in which is normal for an organization to choose a good strategy to become more efficient. The problem is that sometimes this strategy proves to be wrong and that leads to a failure. The second approach, the charismatic one, takes into consideration the vulnerabilities of managers. According to this, leaders have to look beyond themselves for salvation. The third approach (the distancing approach) explains that managers appeal on gurus’ theories because it offers a dynamic perspective, something different from what they were used to. When the environment it is affected by uncontrollable factors, the managers have to choose a logical solution (the structural approach). The last approach is the most important, because as Grint observes, the construction of management fashion is, in some way, fashion. The conclusion we can draw from this classification is that managers appeal either on logic or on emotions in choosing the best strategy for the organization. Other explanations for this demand for fads could be the changes in the political and economic environment, the managers’ lack of faith in their own skills or the managers’ desire to learn more about the strategies that would bring success to the organization. Regardless of the managers’ reasons to appeal on fads, a conclusion was drawn by the scholars: fads offer an ideological perspective on the managing process.

But how does it work this process of setting fads in management? The management – setting – fashion can be define as the process by which management fashion setters continuously redefine both their and fashion followers’ collective beliefs about which management techniques lead rational management progress. According to Abrahamson (1991), at first some organizations adopt management techniques that proved to be efficient. Then, the fashion setters (consultants, management gurus, business publications) start to promote these innovations. The result is predictable: other organizations will take the “rational decision” and implement the innovations. There are two possibilities when a new fad is launched: either is a success and becomes part of the management practices, or is a failure and is abandoned. In order to help to the radical business improvement (Grint, 1997), the strategy promoted by the fad has to be progressive and rational (Abrahamson, 1996).

Some authors considered the positive aspect of the fads: they do have the potential to improve organizations, because they provoke thought and discussion, they do produce changes, causing organizations to question their approach, they energize managers by providing a sense of excitement, and they popularize the management ideas (Furnham, 2004). But, sometimes the fads can have as an effect the distortion of the true nature of organization or can devalue the employees, destroy the managerial competences and organizational capabilities.

There are many criticisms regarding the role of fads, especially regarding the true nature of the persons who are spreading them (some academics call it gurus or fashion setters). Collins (2000) considers that fads do not appear naturally; they are produced and spread by persons, who now constitute an entire industry – the gurus industry. There is a whole controversy among the academics regarding this subject. According to Wray-Bliss (2003), the management gurus are pushers of a seductive, sometimes inspiring, but ultimately unsatisfying product who exploit the society's fears and hopes. He compares the management culture with drugs (in a metaphoric sense), because the two of them have the same outcome: addiction.

In addition, Furnham (2004) discusses in his book different types of fads: fads in planning (the main idea is that companies must cooperate, in order to gain a competitive advantage), fads regarding the staff (wellness programs or techniques regarding the stress of employees), fads in organizing (applying general beliefs regarding the behavior of people from organizations), fads in leading (companies must use the "intrepreneurus"), fads in controlling (quality circles) and fads that sustain the idea of paying for performance. He also presents a list of the fads: one – minute management, total quality management, excellence, chaos, learning organizations, peak performance, management by objectives, matrix management, team – based management, process reengineering.

Many scholars believe that some fads are bad, because instead of helping, they mislead the managers. This happens because the management is a fertile field for fads and quick fixes because the problems are intractable, yet the pressure to be seen to be doing something is intense (Hilmer and Donaldson, 1996). A study on fads, more precisely on innovations, was conducted by Abrahamson (1991) who analyzed the idea spread among researchers that, because of the fads, some inefficient innovations were propagated and adopted, which cause the efficient ones to be rejected. Hilmer and Donaldson analyzed the fads which constitute a danger for the manager, by dividing them into five trails. All these fads have as a basis a positive idea, which is modeled during the process and in the end, the result is a negative one for the organization. For example, in the case of the false trail regarding the action approach, it suggested that managers should take action and try new strategies, without taking into account the possible consequences, in case this strategy proves to be wrong. Maybe the problem is that managers misunderstand these fads, they are using an extremist approach, which may prove to be the road to failure. This failure will affect not only the entire organization, with the people working within it and the manager itself (by affecting his reputation), but also the external environment (it is possible to affect the community). A reason for the failure can be the fact that managers, in their way of

finding a “miracle cure”, take on too many initiatives, which leads to an overdose of instant remedies. It is like when you are having flu. If you take too many medicines, they may interact and the process of healing may slow down.

Hilmer and Donaldson (1998) analyzed some fads in management, by calling them “anti-management trends”. They are convinced that the techniques promoted by these fads reduce the organization’s performance and affect the manager’s status. One of the analyzed fads is centered on the flat organizational structures. The authors considered a hypothetical example, through which demonstrated that this assumption is based on a false premise: application beyond limited and carefully designed cuts is liable to be counterproductive. The other fad focuses on the idea that organization does not have to be hierarchically managed. An argument against this technique is that obtaining agreement from all employees, about values and priorities, is difficult and can even be counterproductive. The last fad they analyze refers to the expulsion of the manager (who manages his own company) from the board of directors, by replacing him with an independent manager. Hilmer and Donaldson consider there are not enough evidences to prove the validity of this fad.

Academics considered these fads are characterized by a life-cycle, because they come and go, like a trend. While Gill and Whittle (1993) consider is a forty years life-cycle, Abrahamson (1996) suggests is around ten years. On the other hand, Grint (1997) believes that management fads appear almost every year. Gibson and Tesone (2001) analyze the life-cycle model proposed by Ettorre, a model that included five stages: the first stage (discovery) is when the fad enters in the public’s attention. In the second stage, (wild-acceptance) it becomes very popular, popularity that begins to decrease in the third stage (digestion) when people start to question its efficiency. In the fourth stage (disillusionment) these rumors are more accentuated and as a consequence, only few people remain loyal (hard core). The same authors consider that every decade corresponds to a specific fad: management by objectives (1950s), sensitivity training (1960s), quality circle (1970s), total quality management (1980), and self-managed teams (1990s). We can talk about this cycle using the term “vicious” when these new fads (that appears at a specific period of time and replace the old ones), instead of solving the organization’s problems, may cause new problems. As Collins (2000) and Hilmer & Davidson (1996) observed, the new fads tend to contradict the previous ones.

So, what are the solutions? Abrahamson (1996) encourages the management scholars to intervene in the process of setting fashion, in order to make it a more technically, useful collective learning process. He developed a theory of management structured in three parts: first, he considered the norms of rationally and progress as the basis for the appearance of management fads. Second, he analyzed the mutual influence between those who supply fads (fashion setters) and those who require fads (fashion takers). Last, he focused on the external factors that influence this process (socio-psychological and techno-economic forces).

Hilmer and Davidson (1996) propose an alternative solution, what they call professional management: society in general must invest in the positive qualities of professionals. Thus, a professional must exceed the personal interest – he must

contribute through his knowledge to the development of the organization/society. Another essential quality is rationality – his ideals have to have a scientific and reasonable basis. His language has to be clear and precise, and his actions have to be taken in accordance with the moral standards.

Gibson and Tesone (2001) consider that the organizations have to answer a set of questions before they adopt a fad. These questions suggest that managers should check if the fad have a good background (if it has been implemented before and if it was a success), if the company has the necessary resources for the implantation of the fad, if the fad responds to the organization's objectives, what are the risks, if the company affords to wait a long period of time in order to see the results of the fad's implementation or if an alternative exists. Only after the manager takes into consideration these possible issues, he can reach to a decision, because after all, the goal of a fad adoption is to provide an innovative technique to improve organizational performance.

Conclusions

Nowadays, the business environment is going through a period of constant change. In order for the organizations to survive in such conditions, their leaders have come up with different strategies. In their chase for success, the managers appeal on various management techniques. Sometimes, these techniques, known as fads, prove to be inefficient; that is why the managers has to choose the good ones and ignore the bad ones. But a problem, that scholars noticed, is that it is really hard to measure the real benefits of these theories and to distinguish between a valid fad and an invalid one. The managers should try to solve the problem by using their own qualities, knowledge and experience, before appealing on other specialists, like gurus. Even the word – gurus – has a special resonance; it makes you think of a prophet, someone who possesses great knowledge, someone beyond this material world. Maybe we have to acknowledge the fact that these gurus are humans, and humans make mistakes.

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INTERNATIONAL FINANCIAL REPORTING STANDARDS FOR SMES

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Abstract

*IFRS for SMEs give the response to an international requirement of the developed and emerging economies in the process of globalization to have a rigorous and common set of international accounting provisions (standard, rule, regulation) specifically for SMEs, to be much more simplified than the complete IFRSs. The area where are applicable the IFRS for SMEs includes all the **profit-oriented** entities that prepare the **general financial statements** and do not have the **public accountability** and there are excluded the entities whose securities are publicly traded and the financial institutions like banks and the insurance companies.*

Key-words: *IFRS for SMEs, simplified financial reporting, public accountability, options, external users, recognition and assessment principles*

JEL Classification: B₂₁, C₈₁, F₁₅, L₁₄, M₄₁

IASB develops and publishes **International Financial Reporting Standards – IFRS**. They are designed to be applied for preparing the financial statements with general purpose of all major entities (companies and banks) that are profit oriented. The financial statements with general purpose address to the most users for their common information needs, such as shareholders, creditors, employees and the public. The objective of the financial statements with general purpose is to provide information about the financial position, performance and the cash flows of an entity that is useful for users who take the economic decisions.

IASB also develops and publishes a separate standard for the application of the financial statements with general purpose and other financial reports of the private entities without public accountability called **small and medium enterprises – SMEs**. This standard is called *International Financial Reporting Standard for Small and Medium Enterprises – IFRS for SMEs* and was issued in July 2009.

The development of *IFRS for SMEs* started from the complete IFRSs, taking into account the needs and capabilities of the small and medium enterprises, which are estimated to constitute over 99% of all worldwide companies. Paul Pacter, member of the *IASB Council* in the Accounting Profession Congress in Romania, which took place on 4 September in Bucharest, appreciated that 52 of the largest

stock exchanges in the world only have recorded together 45,000 listed companies, while in Europe there are 25 million private entities, in the U.S.A. 20 million, in Britain 4.7 million, of which 99.6% have less than one hundred employees.

Also, the development of *IFRS for SMEs* takes into account the users information needs of the SMEs' financial statements and the cost-benefits report. The form in which it appears is less complex so that: the themes that are not relevant to SMEs have been omitted, when the complete IFRSs allow to choose the accounting policy, the IFRS for SME allow one simpler option; many of the principles for recognizing and assessing of the financial assets, liabilities, income and expenses which are arisen in the complete IFRSs are simplified and there are required significantly, fewer disclosures.

IFRS for SMEs were developed by taking the basic concepts of the IASB, principles and guidance of the complete IFRSs (including their interpretation) and by taking into account the amendments to the needs of the specific users and the cost-benefit considerations.

IFRS for SMEs include the accounting principles which are based on the complete IFRS, but are simplified to accommodate the entities that are included in the area of their applicability. By eliminating the accounting treatments that are permitted from the complete set of IFRSs, the elimination of some requirements that are not relevant to SMEs and simplifying the recognition and assessment requirements, *IFRS for SMEs* reduce the volume of accounting requirements for SMEs more than 90% compared to complete IFRSs. *IFRS for SMEs* has 230 pages beside the complete IFRSs that have over 2,500 pages.

IFRS for SMEs require, mainly, that the elements from the financial statements to be valued at their historical cost. Also they provide the revaluation of the real estate investment and the biological assets at the fair value when such information is immediately available. The financial statements are prepared on the accrual accounting basis and going concern basis.

The objective of the financial statements is to provide information about the financial position, performance and cash flows of the entity that are useful for users in the foundation of their economic decisions. The main qualitative characteristics that make the information presented in financial statements be useful to users are: ***understandability, relevance, materiality, credibility, economical sampled over the juridical, prudence, completeness, comparability, opportunity and cost-benefit ratio.*** According to standard, when a transaction is not treated by the *IFRS for SMEs*, the management may use professional judgments to determine and apply the accounting policies appropriate to the qualitative characteristics of the information in the financial statements.

The International Financial Reporting Standards, currently used by the big companies and banks could be used by SMEs in Romania over three years. We support the adoption of IFRS for small and medium enterprises in Romania. It is a big project which we hope to finish in a year and a half or two. We try to find a balance between costs and benefits that make reporting under IFRS. It is actually an adaptation of what we have already aligned to IFRS, said Marin Toma, President of the Chartered Accountants and Licensed Accountants of Romania –

CECCAR at the Congress of the Accounting Profession in Romania, Bucharest, 4th September 2010.

Only in Europe there are 55 different local accounting standards for SMEs. Firms make transactions outside or need financing. How can you run a business when there are so many differences?, said Paul Pacter, member of the IASB Council at the Accounting Profession Congress in Romania, Bucharest, 4 September 2010. A first argument in support of adopting the IFRS for SMEs was that this version is much simpler compared to the complete IFRSs.

There is also the view that the application of IFRS for the smaller firms is too complicated. In this context Luc Hendrickx, Director of External Relations at the *European Association for SMEs – UEAPME* said: *I can guarantee that if SMEs were to adopt IFRS in the next ten years, the small accounting professionals would be outside the market. The international accounting standards are too complex. In the E.U. there are 25 million of enterprises, 99.8% are SMEs, of which half are one-person companies. It's still shocking that the policies are managed by the major industries. In another order of ideas, we can say that the politicians will have less power in the management of the fiscal policies, currently they are using also the accounting regulations to promote the growth of the budget incomes, which raises a question on how they will adopt the IFRS.*

Following the publication of IFRS for SMEs in the summer of 2009, the European Commission decided to seek the advice of stakeholders in E.U. on this standard. During four months in 2010 the Commission received over 200 responses from various interested parties in nearly all Member States and several pan-European organizations.

In the Summary Report published by the European Commission in May 2010, in general, the views expressed by respondents about the potential application of IFRS for SMEs in Europe were **divergent**. In some E.U. countries the link between accounting and taxation rules would make the requirements of *IFRS for SMEs* to become more burdensome for some companies by multiplying the reporting requirements.

However, there was also a considerable support for using this standard, especially for companies with branches in the different Member States, the companies that seek international funding and the companies listed on the regulated or unregulated markets, taking into account a future listing. Using the standard for the consolidated accounts was seen as a possible compromise in those states where the link between accounting, taxes and the rules that are governing the capital created some problems in the annual accounts of the company. Many respondents felt that the accounts users would benefit widely by adopting the standard mainly due to increasing the capacity for analysis and comparison of the financial statements prepared in the different states. Others have reported the potential benefits including the expansion of the international trade, increasing the international companies, increasing the number of mergers between foreign companies, increasing the purchase of assets, a decreasing of the capital cost and broadening of the capital base.

Opponents of the application of *IFRS for SMEs* in Europe have highlighted the complexity of the standard, especially for the small businesses. They feared that the potential benefits brought by applying the standard would outweigh the costs. For enterprises that are active only at the local level there is no need for the international comparability.

Respondents in the most Member States felt that the *IFRS for SMEs* should be provided within the European accounting. In this case, a Member State option was generally preferred, at a company option.

Finally, a majority of respondents believed that the Accounting Directives have played a crucial role in the E.U. accounting, and that they should provide a set of general accounting principles applicable all over the E.U. They also highlighted the need for modernization and simplification of the Directives, while reducing administrative burdens, especially for the small businesses. The revised Directive should also ensure that the information needs of stakeholders of SMEs are performed.

In order for the European Commission to develop a point of view about the compatibility between E.U. Accounting Directives and *IFRS for SMEs* an analysis was required by EFRAG – *European Advisory Group on the Financial Reporting* in order to determine whether the accounting treatment required by *IFRS for SMEs* is allowed under the EU Accounting Directives. In this respect, EFRAG found six such incompatibilities.

It is noted that the EU Accounting Directives provisions (**The Fourth Directive – 78/660/CEE and the Seventh Directive – 83/349/EEC** with subsequent amendments) in accordance with amendments made in 2003 are consistent with the treatment allowed by IAS on 1st May 2002.

In the *IFRS for SMEs* there is not a definition based on an order of the size for the small and medium enterprises. As it is the standard, *the small and medium enterprises are entities which:*

- a) *do not have the **public accountability**; and*
- b) *publish the **financial statements with general purpose** for the external users.*

Standard defines entity with the public accountability when:

- a) its actions or bonds are traded on the public market or there are during the issue of such equity instruments or the debt to trading on a public market (a national or a foreign stock exchange or an unregulated market); or
- b) holds assets for a large group of the external parties, which is one of its main activities. Example: banks, insurance companies, stock exchanges etc.

According to the regulations in Romania, the small and medium enterprises are entities that meet the following conditions:

- a) have an annual average number of employees less than 250;
- b) have an annual net turnover of up to 50 million euro, equivalent in lei, or have the total assets which do not exceed the equivalent in lei of 43 million euro, according to the latest approved financial statements. Total assets mean fixed assets, current assets and the expenditures in advance.

The small and medium enterprises are classified according to the annual average number of employees and annual net turnover or the total assets held by them in the following categories:

a. Microenterprises – have up to nine employees and achieve an annual net turnover or have total assets of up to 2 million euro, equivalent in lei.

b. Small enterprises – have between 10 and 49 employees and achieve an annual net turnover or have total assets of up to 10 million euro, equivalent in lei.

c. Medium enterprises – have between 50 and 249 employees and achieve an annual net turnover of up to 50 million euro, equivalent in lei, or have total assets which do not exceed the equivalent of 43 million euro.

Elements of presentation, content and simplicity of the *IFRS for SMEs*

▪ *IFRS for SMEs* is presented in 35 sections (e.g. 2. *General concepts and principles*; 3. *Presentation of the Financial Statements*; 7. *Cash Flows Statement*, 17. *Tangible assets*, 24. *Government grants*, etc.).

▪ *IFRS for SMEs* **do not treat** the following issues that are covered by the complete IFRSs:

- earnings per share;
- interim financial reporting;
- segment reporting;
- assets held for sale.

▪ *IFRS for SMEs* **do not include** some options of the complete IFRSs as:

- revaluation model for the tangible assets;
- proportionate consolidation for investments in jointly controlled entities;
- for the property investment, the evaluation is determined rather by the circumstances allowing an accounting policy choice between the cost model and the fair value;

- different options for the government grants.

▪ *IFRS for SMEs* present simplifications of the recognition and assessment principles in the complete IFRSs, such as:

□ ***Financial instruments:***

- The financial instruments that meet certain criteria are evaluated at cost or amortized cost. All others are evaluated at the fair value through the profit or loss account.

- IFRS establish a simple principle of recognition.

- The accounting requirements to cover against the risks, including detailed calculations are simplified and adapted for SMEs.

- The standard deleted the classification *available for sale* and *held to maturity* of IAS 39. *Financial Instruments: recognition and assessment*.

□ **Goodwill amortization and impairment and of the other intangible assets with indefinite life** are amortized over their estimated useful lives (ten years if the useful life cannot be reliably estimated).

□ **Investment in the joint ventures** may be evaluated at the cost unless there is a quoted price (when fair value can be used).

□ **Research and development costs** shall be recognized as the expenses. IAS 38. *Intangible Assets* requires the recognition of the research costs as the expenses when they occur, and the development costs incurred after the project is considered to be commercially viable, should be capitalized. Many of those preparers the financial statement and the auditors have concluded that SMEs do not have the resources to assess whether the project is commercially viable on an ongoing basis and therefore only a portion of the capitalization of the development costs would not provide the useful information. Thus, the Council accepted these views and, therefore, *IFRS for SMEs* require that all research and development costs are recognized as expenses when they are incurred.

□ **Borrowing costs** should be recognized as expenses. IAS 23. *Borrowing Costs* requires capitalization of the direct borrowing costs attributable to the acquisition, construction or production of a qualifying asset for manufacturing, as part of the cost of the asset. For reasons of the cost-benefit ratio, *IFRS for SMEs* require such kind of costs to be recognized as expenses.

□ **Tangible and intangible assets** – the residual value, the useful life and the depreciation method for the tangible assets and the period/the depreciation method for intangible assets should be reviewed only if there is a hint that would be produced changes to the recent annual reporting date (complete IFRSs require annual review). *IFRS for SMEs* do not require annual review of useful life, residual value, depreciation method of the tangible and intangible assets.

□ **Government grants** – *IFRS for SMEs* require one simplified method of accounting for all government grants. All the grants are recognized in the incomes when the conditions of performance are met or even earlier if there is no performance condition. All the grants are evaluated at the fair value of the asset received or receivable. IAS 20. *Accounting for Government Grants and Disclosure of the Government Assistance* allows a number of other methods which are not permitted by the *IFRS for SMEs*.

□ **Biological assets** – the fair value through the profit or loss is required for the biological assets only to the extent that fair value is easily determinable without undue cost or unjustified effort.

Conclusion

International Financial Reporting Standards for SMEs represent one of the steps of the accounting harmonization in the international accounting system. The development of *IFRS for SMEs* started from the complete IFRSs, taking into account the needs and capabilities of the small and medium enterprises, which are estimated to constitute over 99% of all worldwide companies. International Financial Reporting Standards for SMEs were developed and promoted by IASB, in order to improve the accounting regulation all over the world. In Europe, most of the businesses are SMEs and IFRSs for SMEs are simplified to accommodate the entities that are included in the area of their applicability.

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COMMUNICATION CRISIS AND ITS SOLUTION THROUGH CRISES MANAGEMENT

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Abstract

Crises are never convenient as they are destructive. Any institution or organization may face a crisis situation, able to endanger its normal activity and reputation. Some crises are predictable and can be prevented, others cannot be grasped and thus prevented. Experience proved that, despite all technical, economical, financial or educational cautions taken to stop or control a crisis, it can get out of control and develop. In these circumstances, the crisis can bring serious prejudices to the organization if not properly managed from all points of view. Communication during crisis is extremely important, aiming at generating changes and taking action against the crisis. Above all, crises management consists in interpersonal relations. Management activity in crises situations develops a constant and complex communication process with the aid of which, the manager, the crisis cell, the entire staff interact in order to find the optimal strategies to survive the crisis situation.

Key-words: *crisis situation, anti-crisis action, interpersonal relations, communication barriers, image crisis, communication channels, feedback*

JEL Classification: O₁

Introduction

The complexity of the contemporary society, the plurality of factors interfering in the sphere of everyday human relationships, have generated, generates and will generate conflicting phenomena which, under specified conditions, develop rapidly into a crisis. Crisis, whether economic, cultural, social or institutional, it became a daily state, and the collocation “crisis” came into common vocabulary of heads of institutions, journalists and the general public. The presence of conflicts with crisis like aspect, placed in various fields and institutions, and the need to understand the various mechanisms, have made more and more leaders of institutions, political leaders, experts in management and public relations be concerned with crisis management. Although this trend plays an increasingly important concern in the sphere of professional concerns the daily experience from Romania shows us that very few people have the competence, experience and logistics necessary for preventing, managing and effectively eradicating the crisis.

We are in early 2011. During the global economic crisis, the Romanian people has to face probably the hardest period ever. It is a much difficult attempt than those faced in the past by Romanian, at least in its modern period.

“Of all the crises facing the Romanian people, the only crisis that the Romanian government is not to blame for is the economic crisis. Confronted with a global economic crisis, Romanians are shown in all characteristic “splendor”, all the other crises grinding the Romanian society.”¹

Crisis management is an area that has experienced, in recent years, rapid development, both in the sphere of practical applications, and in that of research. Romania, after 2007, faces the biggest number of communication crisis having as subject companies that are present on the Romanian market for years (“Danone – dioxin”, “Ernst & Young – Raluca Stroescu”, “Smithfield – swine”). For the first time, a multidisciplinary team of consultants in reputation management, social scientists and journalists have asked what can be learned from these situations, in a first attempt to support the maturation of the field.²

Practitioners of public relations are also part of this crisis management teams because “a company that does not benefit from a professional crisis management will never be able to solve problems. In many companies and institutions the word crisis is associated with negative, in fact catastrophic situations. But a crisis becomes a catastrophe when it comes unannounced. When the crisis is a normality, then a positive side of it appears, being associated more with a chance of renewal and change.”³

Being extrapolated in all social fields, the concept of crisis has become a continuous presence, “a daily state.” However, not any event with a negative tinge “crisis” – “only those events that seriously threaten the values and the good functioning of an organization, can really be considered crises”.⁴

Brigitte Fornier offers an almost exhaustive definition of crisis: “The result of an event or a series of events that a company as to face or has caused, this situation profoundly alters its environment, its relationships with customers, partners, employees and the general population. The company causes losses to all these categories, a fact that questions, materially and publicly, the image and stability or even the survival of the company.” (*L’enterprise en etat de choc, gerer les crises ecologiques et sociales, faire face aux medias, Les editions de l’environnement, Paris, 1993*).

In modern businesses, irrespective of the field, a crisis of some kind is inevitable. Crises are never convenient as they are destructive. Any institution or organisation may face a crisis situation, able to endanger its normal activity and reputation. Some crises are predictable and can be prevented, others cannot be grasped and thus prevented. Experience proved that, despite all technical, economical, financial or educational cautions taken to stop or control a crisis, it can get out of control and develop. In these circumstances, the crisis can bring serious prejudices to the organisation if not properly managed from all points of view.

¹ www.conspir.info/2011/01/crizele-romaniei-fata-in-fata-cu.html.

² Rogalski Grigoriu, *Crizele anului 2007*, March, 2008, www.r-g.ro.

³ Achelis, T., *Supraviețuirea corporatistă și cele 3 instrumente esențiale: managementul crizei, issues management și învățarea continuă*, www.pr-romania.ro.

⁴ Coman, C., *Comunicarea de criză. Tehnici și strategii*, Polirom, Iași, 2009, p. 13.

Communication during crisis is extremely important, being able to diminish or even stop public negative reactions.

The majority of the scientific fields worked out their own image about crises.

The economists, for instance, analyze the crisis according to a specific criteria, conferring it the features of some phenomena with harmful consequences for organizations, institutions and involved social groups: inflation, unemployment, recession.

The sociologists identify the origin of crises in social inequities, in decrease of motivation and initiative, in revolt against authorities, in deficiencies at the level of social control, in the decline of homely, communitarian, civic and religious inheritance

In recent research, debates and practices connected to the field of public relations crisis situations are defined as phenomena of interruption of the normal functioning of an organization and as moments of blocking or weak organization of information exchange between the organization and its public, internal or external. Crises appear, in consequence, as phenomena that can bring damages to an organization, both at the level of material loss, and at the level of social reputation, through the damage of the public image. As a consequence, for the specialists in public relations, the crisis represents a field for the conceptualization and employment of some communication strategies, specific to each type of crisis that the organization may face, aiming at the limitation or even stopping of damages.

The types of crises can be traced according to the criteria applied in their classification:

1. **According to the type of solutions and the way of solving**, we identify:

a) development crises (when the organisation faces alternative situations to the traditional solutions of conflict solving, due to the new informational capacities);

b) legitimacy crises (the organization faces a blockage in a solution that reached its functional limits);

c) honesty crises (the managers of the organisation, although they possess competitive ways of data processing, use them in a defective manner, either to gain some personal advantages, or in other hidden purposes, thereby compromising the image of the organisation);

d) competence crises (the managers of the organisation are unable to reach the expected level of information processing, despite of the informational techniques they dispose of).

2. **According to the type of environment**, we identify:

a) the internal crisis, both at the organisation level or in its social environment and at some departments level, going up to branch level or even state level;

b) the external crisis, placed outside the organisation, specific domains or national territories.

3. **According to the field in which the crisis develops:**

a) political crises;

b) economical crises;

- c) cultural crises;
- d) communication crises;
- e) image crises.

4. According to the imperiousness of solving:

- a) immediate crises;
- b) urgent crises;
- c) sustained crises.

The Communication Crisis represents a break or a disruption of information inside the organisation, between the organisation and the outside environment, which makes the dialogue and negotiation impossible, and leads to conflict in the communicative area to the point of losing the organisational and communicative identity.

A. Datin asserts: “In fact crisis communication is, first of all, communication of transparency, or of a negotiated transparency, while the spread of certain information can be postponed. The denial of the crisis is rarely profitable. It is better to manage the crisis trying to impose your own version of events in front of the mass of information often contradictory, broadcasted specifically because of the uncertainty connected to the crisis, than to give up before the journalists, whose interest for the crisis will increase together with the efforts of keeping the secret regarding its origins and consequences.”⁵

The French author sees at the center of the strategy the communicational rigors and interests, among which the vigilance and clarity, concluding that: “The success of communication during crisis depends directly on the quality and fluidity of the communication cycle, which consists of: problem recognition, emission of a message, the analysis of the perception and the more or less precise rendering of the message by the targets, the consequent change of the communication strategy and, eventually, emission of a new message in mass-media, which at its turn will be evaluated and so on. Neglecting the communication aspect will then be not only an unconscious attitude, but a suicidal one.”⁶ (Petrescu, 2006)

The characteristics of the communication crisis

1. The communication crisis may be a part of the organisational crisis. It can precede, accompany and amplify the structural crisis of the organisation. A deficient inner communication regarding the changes and the perspectives of the organisation often triggers a major conflict between the members of the organisation and the management, and, most of the times, grows into an organisational crisis. At the same time, an incoherent, ambiguous and contradictory external communication, regarding the purposes and their fulfillment, may trigger conflict between the organisation and other organisations from the same environment. We can take as an example the organisations that did not make public the degree of risk of their functioning or of their marketed products (nuclear power

⁵ Datin, A., *La perte de repères. Les enjeux de la communication en temps de crise*, in: „Armées d’aujourd’hui”, Paris, nr. 216/1997, p. 33.

⁶ Datin, A., *cited work.*, p. 33-35.

plants, chemical products factories) and whose characteristics may damage the environment, human health and safety.

2. The communication crisis has an unexpected, surprising and complex development, depending on the factors that led to its start. Its development may be slow, if it is disguised by the success on the market of the organisations products/services or by the myth-image promoted by its leaders. In other circumstances, the development of the crisis may be sudden and devastating, when inside or outside the organisation appear contradictions and divergences that turn into conflict.

Causes that may lead to the communication crisis

1. Internal causes

a. The lack or the ignorance of some rules and regulations in the internal communication: vertically (of information, of decisions transmission, of training, of image building, of motivation and promotion of organisational culture) or horizontally (of cooperation, of mutual knowledge).

b. The interruption of communication or the misinterpretation of messages because of the communication channels used, having bad consequences on the communication efficiency and on the status determination in the organisation and in its external environment.

c. The presence of some barriers in the communicational process: due to the levels of interpretation and expectation, to the barriers caused by language, environment or differences in the status.

d. The different interpersonal communication styles of the managers:

- the autocrat – has poor communication skills and has no interest for feedback;

- the phony democrat – transmits few information, but facilitates the obtaining of a large number of feedbacks;

- the politician – transmits a lot of information, but uses the feedback only to select what corresponds to his ideas;

- the communicator – makes a balanced communication, adjusting his decisions to the information received.

e. The existence of an improper framework for manifesting informal communication between the members of the organisation, on the one side, existing the risk of transforming the information that circulates inside into rumor or gossip – if these informal channels become more important than the formal ones, and, on the other side, generating an excess of formalism which will amplify the risk of causing communication crises – in case of a rigid framework, in which the informal communication is forbidden.

f. The reduced presence or lack of politics, strategies and structures devoted to internal and external communication.

2. External causes

a. The existence of too much information, in a very short time period, on multiple channels, which overcomes the capacity to process, check and detect the useful information for the organisation.

b. The existence of a deliberate action of disturbance of the organisational communication through the manipulation of people's perceptions and

representations concerning their place and part in the production, decision and control system.

c. The deliberate actions to reduce the official communication credibility of an organisation, through public declarations, meetings with various audience categories of the organisation.

d. The existence of an accentuated hostility towards an organisation which results in the obstruction of the access to the information sources and communication channels.

The elaboration of the communication plan in crisis situations

Crises management tries to prevent and reduce the negative effects of the crises and to protect the organisation, the involved public and the respective field from the possible damages.

Communication during the crisis is extremely important, aiming at making changes, at influencing an anti-crisis action. Crises management consists, more than anything, of interpersonal relations. The managerial activity in crisis situations displays a complex and permanent communication process with which the manager, the crisis cell, the entire staff interact in order to identify the optimal strategies for surviving the crisis situation.

One of the best means of control in crisis situations is a well conceived communication plan, ready to be activated when necessary. This plan refers to some key aspects:

✓ The identification of crisis points that every organisation has: personnel, disputed products or services, internal conflicts, weak managers, known cases of communications breaks.

✓ The identification of problems scenario and model solutions depending on the vulnerability points of the organisation may remove the surprise element from the next crisis situation and ensures its solving faster.

✓ The gathering of information in non-crisis times. While the crisis points are identified and the scenarios are planned, the relevant information for the organisation should be gathered, sorted, clarified and updated.

✓ The information must be classified in categories, such as facts and myths. The facts must be updated, and the rumors should be verified or presented as myths.

✓ Register the relevant positive information to compensate the negative charge that appear in a crisis situation.

✓ Select a crisis team. The organisation needs a control team for a crisis situation, a group which has to carry out the key-functions in case of a crisis situation.

✓ Choose a spokesman to represent the organisation.

✓ The coordinator of the organisation has to work closely with the crisis team leader and with the spokesman to improve the crisis situation response flexibility.

✓ The existence of some internal and external communication networks through which the transmitted information are presented without facts distortion and meaning manipulation, in order to obtain a precise feedback.

✓ Good relations with the mass-media.

Strategies for surviving a crisis situation

The research undertaken by Miculescu, S. M. and Constantinescu, M. shows that: “No matter how unpleasant a crisis situation may be, it will finally be over. It can also have a positive aspect by strengthening the mission of an organisation, by clarifying its role or by promoting some positive opinions about the organisation.” The same authors conclude: “How do we survive a crisis situation and how do we profit from its experience? We can accomplish this if the priorities are the solution of the crisis and the efficient communication.”⁷

In addition to the two Romanian authors, Stephen Prutianu says: „Flair and knowledge of individual psychology are important ways of demonstrating communication skills. Art rhetoric and technical discourse can help more. Knowledge of Transactional Analysis and Neuro-Linguistic Programming can even lead to a high degree of competence in human communication.”⁸

There are four basic strategies in crisis situations:

a. To do nothing. Some organisations refuse to admit that there is a crisis situation. Through the lack of action, they let the crisis make its course with the risk of dividing the organisation and destroying the company’s reputation.

b. To block and delay. The management refuses to give a public response to the crisis situation, unwilling to clear the correct or wrong statements and considering that the passing of time will be in its favor. The use of such an approach is not desirable because it leads to the appearance of bad attitude from the public and mass-media. This blocking tactic is acceptable in the case of personnel problems which involve disciplinary actions or a situation that is going to be disputed in court.

c. To answer and to defend yourself. In case the organisation admits the crisis situation, it responds positively and aggressively, communicating the facts and choosing the spokesman who presents the truth in the most convenient way.

d. To take advantage of the opportunity in order to act in the public’s interest. This strategy implies the use of a crisis situation as an opportunity to create a positive opinion about the organisation and its employees.

As a conclusion, it is recommended for the manager to follow a few simple, but very useful rules for improving the communication in the management of crises:

✓ Firstly, make clear for you what you want to say, do not talk under the urge of the moment or under the influence of some strong emotion which can disturb the thinking, objectivity and clarity. The idle talk is, especially in crisis situation, equally destructive for a manager as silence.

✓ To know as much as they can those he addresses to. Only then they will know how to talk to them, how to persuade them, how to attach them to the anti-crisis activity side which they develop together in the most efficient collaboration.

⁷ Miculescu, S. M., Constantinescu, M., *Relații publice și comunicare internațională*, Editura Fundației *România de Mâine*, București, p. 265, 2006.

⁸ Ștefan Prutianu, *Manual de comunicare și negociere în afaceri*, Editura Polirom, Iași, 2000, p. 28.

✓In the communicational activity in crisis situations, it is important to create a favorable environment for communication, collaboration, cohesion. The managers must assure that the interlocutors are willing to listen, to understand and to execute.

✓To assure that the interlocutor listens and understands exactly what he/she is told, by use of some simple words, expressed directly, accurately and understandable for everyone.

✓The communications shall not be done in a short time and shall not be complex, as they are difficult to keep in mind and memorized.

✓Encouragement of the interlocutor to discuss openly about the things communicated to assure that he understood exactly what he has to do.

✓The communicational process must be treated as a part of every manager's duty.

✓The communication must reflect the activity and the practices of the manager. In the practical activity, the employees are influenced not by what the manager says, but by what he does, in his life, in general.

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BOOK REVIEWS

**European knowledge society – economic,
social and juridical perspectives**

The publication of a scientific paper stirs up both a lot of interest and rivalry. Should the topic be of a great concern, then the desire to purchase and study the paper appears. This is what the *Societatea europeană a cunoașterii* volume undoubtedly brings up, after being published by the prestigious Romanian Academy Publishing House.

The authors, well-known for competence and expertise in this field of study, including at *Spiru Haret* University – where they are also highly appreciated and prized professors, students and master students –, resume their attempt to highlight the defiance, the real and virtual hindrances of the contemporary society (and not only) from the European objectives included in the Lisbon Strategy. Moreover, they recommend realistic and pertinent measures to be taken, in order to provide performance at the structural and institutional level, able to trigger top research development in the knowledge avant-garde.

As the authors believe, the institutional structures should capitalize on the potential, the ability of approach and operationalization of new research areas, via a constant and fruitful dialogue with diverse sectors of the scientific community, along with the effort to connect the research and research financing to major topics, for a future development of humankind; to prove flexibility, in order to avoid the strict division of the structures, thus fostering the inter-disciplinarity, along with the forms of institutional dialogue within the research endeavor; the expertise, level of training for the researchers, which ensures the successful dissemination of knowledge and competence derived from top research; the degree of cooperation with the international research communities, similar in status, which will stimulate competition.

The final part of the volume examines major issues, relevant for the European Union enlargement and the shortcomings in the economy of the future. Thus, the computer-based knowledge society is perceived as a vital evolution, in order to provide a sustainable durable development, able to offer mainly intensive intellectual products and activities as an axiomatic prerequisite of the advanced social and human civilization.

The knowledge society means more than the progress of technology and of the computer and information applications, as it also involves the *economic* dimension (the development of new paradigms of the digital economy and the latest knowledge economy, innovation, entrepreneurial and managerial culture, education for the citizen and the consumer), *legal* (the reassessment of concepts such as informatics law, copyright, electronic signature, data legal protection, regulation of the legal framework in the economic and social fields), *social* (the

impact on health care, solidarity and social protection, labor and labor market, continuous education and training, etc.), *environmental* (the re-interpretation of the issues of using the environment resources and protection) and *cultural* (preservation and development of the national and international cultural patrimony, promotion of the cultural pluralism, the need for protecting the minor children, development of the multimedia industry and the production of an informational content).

In light of the above, the reviewed paper aims a tri-dimensional approach: economic, legal and social, targeting both research in the economic, legal and social fields, private and state, companies, managers, students and all interested people in grasping the concept and role of the knowledge society in general and the European knowledge society in particular, which may not be looked at unless considering the complexes of the pluridisciplinary valences.

I truly believe that the Romanian reconstruction, smartly designed on medium- and long-term, may bring on the fundamental change that underlies this transition: the shift from the *institutional center of knowledge society that is specific to the industrial society* (company), to the *institutional center of the knowledge society*, the research school and institute, which does not anymore act from 'outside' the productive system, but as endogenous factors of the production process. This shift will trigger other social changes, such as: the promotion of the 'new intellectual elite', researchers, technology creators, managers, teachers, IT staff, as main social and professional groups in the emergent knowledge society, with a focus on the knowledge about the human and social capital, as a main resource of the knowledge society and as an element of power that provides the fair distribution of resources and the mobility of labor factor.

Of course that the generalization of the IT technologies use, communications at the society level, accomplishing the real reform in education that will impose the acquisition of solid knowledge by continuous learning, a new condition of the scientific research as a highly lucrative sector focused on fundamental research, all these may be comprehended as measures to carry out this shift.

But, above all, it is crucial to be understood, for the decision-making factors in politics and economy and the individuals, the complexity of the time we are going through that inflicts a series of constraints, whose answer is to be found in the *advancement of knowledge*. This is why any study that contributes to the understanding of the complexity of present times, the shifts taking place and clears up the latest concepts that define the phenomena and processes specific to this window in time and helps grounding the active role of school and scientific research as institutions of governing and development of the Romanian society is a step forward to the *knowledge society*.

It is worthwhile mentioning the lobby of the authors in favor of adopting a competitive thinking and attitude in various fields, while the trend is towards a harmonious and complete development of the economic, social, political and of safety relations worldwide. This approach is known to involve changes and global harmonization in the legal area – and the conclusion is that their quick implementation, as shown in the Lisbon Strategy, is the key element and also the

foundation upon which the expected and desired optimism is being built. The purpose, novelty and the utility of the present volume lies in its essence itself, as scrutinised in great detail and professionalism by its authors.

Upon considering the topic's present interest and importance, the scientific level of writing, competence and acuity of the future evolution review, I thus reckon that the Publishing House should deliberate on having this volume translated into the French and English languages. Likewise, I do hope that the scientific, academic and university experts will reward the superior skills and more than generous effort put into by the above authors.

Aurelian A. BONDREA, Assoc. Prof. Ph.D.
15.05.2011

THOMAS L. FRIEDMAN
Hot, flat and crowded. Why the world needs a green revolution
– and how it can renew america

Polirom Publishing House, Iași, 2010

In his latest book, **Hot, Flat and Crowded**, the triple *Pulitzer* award laureate, Thomas Friedman, foreign affairs analyst and columnist at "The New York Times", succeeds a thorough and well-grounded analysis of the weather changes in the present and of the measures to be taken in the near future.

The main issues that humankind needs to confront are included in the title. Global warming is a phenomenon that each of us has already noticed. The world is becoming 'flatter and flatter' while globalization wears out many of the differences among the national economies, allowing the emergence of a middle-class in countries like China and India, which class tends to embrace an 'American-like' consumption style. And, of course, the planet is getting more and more crowded, not only because of population increase (according to the UNO statistics, the globe population will reach 7 billion people on October 31st, 2011¹) but also of urbanization. There are debates concerning the intensity of such phenomena, whose presence may be hardly denied.

This growth in the number of population, along with the rising of the life standards, triggers a dramatic mount in the energy demand and takes to a dependence on the oil-producing countries. The author comes with a quite interesting analysis of the correlation between the oil price and the freedom that the people in the oil-producing large countries enjoy overall. The conclusion that he draws is that there is a reversed relation between the oil price and the degree of democratization of such countries. He even formulates a first law of the petroleum politics: 'The lower the oil price, the faster the freedom evolves.' Thus, at the beginning of the 90's, the oil price went down and the competition, transparency and freedom in these countries surged.

After 2000, when the petroleum price went back up, the free expression, fair elections and the freedom to build political parties started to deteriorate.

Friedman's conclusion is that while the slogan of the American revolution was – 'No taxation without representation', the authoritarian oil-producing country is 'No taxation, hence no representation'. It is obvious that this 'law' does not point at the states that had had strong democratic institutions and diversified industries before discovering they had plenty of oil. Plus, the dependence on 'dirty', polluting energy sources (called the 'Dirty Fuel System') brings its contribution to the climate change.

The expected solution, presented by the author, is the 'economy going green'. This process requires a sustained effort, both from each of us (there is no easy way – Friedman ridicules articles as '205 simple ways to save the Earth') and from the governments worldwide.

¹ <http://www.worldometers.info/population/>.

The green revolution involves the building of a Clean Energy System. This one will ask for, among others, the introduction of a carbon emission tax and the modification in the role of the energy-supplying companies. They should not only deliver the energy in the quantities that the consumers want, but to make them consume less, from not polluted sources. The green revolution is a long and tedious process, mainly if we consider that low funds for research-development are meant for this field – and the result: the latest major finding (the use of the nuclear energy) dates back 50 years ago.

Friedman insists that the energy issue is, in reality, an opportunity that should not be missed. Those who will be able to solve it will be the great winners of the Energy Climate Era, starting now. The warning that America has lost its momentum in this competition comes with the hope that it will somehow recover and will lead the way to be followed by the other economies.

While in his previous book¹, Thomas Friedman believed that the free economy and globalization were enough to provide a long-term welfare, here in the sequel, he admitted the need for a stronger involvement from leadership, acknowledging that a country like China would be more able to solve the challenges stemming from the major changes herein suggested. 'Hence comes his desire, 'to become China for a day (but not two)'.

The purpose of this book was to bring into attention momentous items of the present times and to imprint the eco-economy into the conscience of as wide as possible audience. From this perspective, this book is a success, since it is an easy reading for non-economists, too. Whoever has not become aware of how the weather change, economy, energy cost and national security are all intertwined, **Hot, Flat and Crowded** will be of an unarguably help.

Cristian Uță, Lecturer PhD
22.05.2011

¹ The World is flat.

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