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Foreword

Today' s reality is really complicated. A wide range of rapid changes are overwelming us, and an increased adaptation capacity is more and more required.

A certain degree of accountibility seems to be necessary at micro- and macro-level to ensure economic recovery. Most of all, resouces allocation is tremendously important for small- and medium-sized enterprises to "sail" in such a hostil environment as the current economic crisis. No matter what, economic entities should perform better in order to survive.

Adaptive management strategies are correlated with environmental business perspectives in order to generate long term sustainable solutions. To some extent, each economic entity is "a tiny piece" of the whole, and a "puzzle matching" of companies is required in order to revitalize global economy.

EU economic growth is linked directly to the quality of life, each individual wants to provide a better life for him and his family in a more prosperous society. Statistics are providing reliable indicators but the concept "quality of life" is far more complex and interdisciplinary research approach is needed. Beyond concepts and measuring instruments, the reality of people's everyday life is complex - well-being generation is the results of a collective effort.

Looking at business, one easily can identify the most frequent difficulties that occur in the current activity, such as: to generate enough cashflow, to ensure short and long run solvability, to recover clients debts, to maintain high-skilled workers in order to provide constant quality of their products, to overcome fiscal constraints and the list goes on. Accountants play an important role in the decision-making process, given valuable inputs on the status of material, human and financial resources therefore a special attention should be paid. Some of the current issue articles are dedicated to accounting and accountability.

I challenge you dear readers to explore the interesting papers of JEDEP, volume 3, issue 1, and let me know your opinion direcly at <u>www.manuelaepure.com</u> (Contact section and submit a comment). The best comments from the readers' point of view will be inserted in my previous foreword.

Prof. Manuela Epure, PhD Editor in-chief

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Quality of life: a multifaceted approach

A review of "Measuring Equitable and Sustainable Well-being in Italy" by Enrico Giovannini and Tommaso Rondinellaⁱ

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Abstract. The article constitutes a multifarious approach to describing the main directions provided by international bodies and scholar for measuring individual and national well-being. Constructing their analysis from a statistical point of view the authors describe and examine the quality of life framework built since the '40s. The focus point of the study is represented by the measures undertaken by Italian National Institute of Statistics (Istat) in order to provide a fair and harmonized measure of quality of life. Giovannini and Rondinella's work stands out due to the fact that it provides a very well documented exploration for the well-being measurements.

Keywords: quality of life, economic and societal progress, well-being indicators, national accounts

JEL Classification: I30, N30, M40

1. Introduction

Tackling an important issue of today's social economics, Giovannini and Rondinella display the measures undertaken by the Italian government in order to better quantify the well-being of a nation. The concept of quality of life is a long debated one, being considered a multifaceted conception. Initially, after the World War II and the "Great Depression", GDP was considered the most important indicator of well-being. However, subsequent to numerous political and academic debates, a general consensus has been reached, that quality of life has to be measured both in subjective and objective terms.



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2. Contribution

Measuring well-being through subjective indicators was considered in the '70s a new social movement that had at its core the involvement of social scientists in matters of policy and contemporary affairs of the community and the nation (Sheldon and Freeman, 1970).

Two were the reasons that led to the emergence of a research directions in the field of quality of life. First of all, finding that, despite the economic progress of society, a good part of the population continues to live in poverty, in precarious living conditions. The second impulse came from the direction of Ecology: disturbance of the environment, that incurred as a result of industrialization and uncontrolled urbanization that has dramatic consequences in the quality of life (UNESCO, "Quality of Life" in Socio-Economic Studies, no. 5, 1985). Quality of life is an evaluative concept that has significance for the life of every individual as a result of its assessment.

Giovannini and Rondinella consider the United Nations Development Programme (UNDP) and the United Nations Millennium Summit as being the most important political debates that addressed the measurements of quality of life. Under UNDP an important indicator is constructed that offers an alternative measure of well-being called Human Development Index (HDI). In the article reviewed this indicator is considered to be the stepping stone towards a fresh perspective on individual and national well-being. On the other hand there are views (Sagar and Najam, 1998) that consider HDI as being a stagnant indicator that fails to capture the essence of the world it seeks to portray.

The second political debate, that in the opinion of Giovannini and Rondinella, helped shape the complex measures of quality of life, is considered to be the United Nations Millennium Summit. In 2000, 147 head of states gathered and adopted the Millennium Development Goals (MDG) that consisted in a set of approaches aiming to address extreme poverty (Sachs and McArthur, 2005). By defining the dimension of extreme poverty as being income poverty, hunger, disease, lack of adequate shelter, exclusion, MDG outlined the pillars of wellbeing, thus providing a framework for further analysis.

Moreover, the measures of quality of life should be analysed in terms of structural development given the fact that, according to previous studies (Viciu et al, 2012), the shift from an agriculturally and industry focused economy to a tartarised economy can involve a process of "creative destruction" through which, wellbeing can be augmented.

After constructing a basis for analysis, Giovannini and Rondinella further present in the article the important role played by the Italian National Institute of Statistics¹ (Istat) in the adaptation of the wellbeing measurements provided by the international bodies to the Italian reality. Istat has responded to the ever growing need for meaningful measures of quality of life by publishing the annual report "Noi Italia" in which it provides a brief presentation of the statistical information that defines the state of the country.

¹ Istituto Nazionale di Statistica (Istat) is the Italian National Statistical Institute. Its activities include the census of population, economic censuses and a number of social, economic and environmental surveys and analyses



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Istat constructs its analysis by using the Multipurpose Survey, this tool is considered by many scholars, as well as Giovannini and Rondinella, "an internationally comparable single question on overall life satisfaction as well as a question on how relevant the different dimensions of well-being are for citizens". Kroll (2011) considers the Italian effort to measure *benessere equo e sostenible* (equitable and sustainable well-being) as a good example for the synergies, between legitimate stakeholders, aimed at providing a coherent and reliable measurement for quality of life.

The main feature that makes the Multipurpose Survey appealing to researchers and policy makers is the fact that it provides a spectrum of information that permits a superior reading of information by placing citizens at the centre of the official statistics.

How people define their requirements for a "good life" or "a decent standard of living" creates an image of the configuration elements that constitute the subjective level, an ideal of a good life, but also on existing standards and promoted by the society in terms of this ideal.

According to Giovannini and Rondinella, the Multipurpose Survey conducted by Istat is based on six pillars that consist of numerous indicators, as follows: health (i.e. life expectancy free of disability), education (i.e. lifelong learning, constructed based on Lisbon strategy), personal activities and work (i.e. underutilization of human capital), political voice and governance (i.e. the duration of civil and criminal trials), social connections and relationships (i.e. friendship) and insecurity (objective and subjective information related to living and working conditions).

Under the consultations initiated by Istat challenges were identified that affected the indicators of progress for the Italian society. The first finding was thought to be the need to provide "a sufficient and robust statistical production able to cover all relevant dimensions of progress".

A study conducted in 2007 highlights the desire of Italian consumers to be informed (Fullone et al, 2007); therefore it is the main task of Istat to provide evidence that can satisfy the expressed need of Italian citizens.

The second challenge identified by Istat is the need to set up a democratic process in order to grant public legitimacy to the selected indicators.

Considering the fact that the debate on how to measure well-being is gathering momentum worldwide it is paramount that all the actions taken by any national agency (i.e. Istat) are aligned to the international consensus regarding these aspects. Therefore Giovannini and Rondinella consider the "Istanbul Declaration" and the work of the "Commission on the Measurement of Economic Performance and Social Progress" (the "Stiglitz Commission") as the two main streams that influence the measurement of wellbeing.

Stiglitz (2009) stipulates that the subjective dimension is as a vital part of measuring quality of life:" [...] there are reliable and replicable ways of ascertaining certain aspects of well-being and quality of life, and relating subjective perceptions to objective phenomenon, such as market based activities."

The main directions given by the "Stiglitz Commission" focus on identifying the limits of GDP as an indicator of economic and societal progress, taking into consideration what additional information might be



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required for the production of more relevant indicators of societal development and assessing the feasibility of alternative measurement tools.

There are scholars (Sicherl, 2007) that suggest a direct relationship between quality of life and economic and societal progress and assert that the two indicators should be analyzed together. Considering this approach, Giovannini and Rondinella debate on the work of the "Pittsburgh Summit" that argued over the measures that have to be taken in order to achieve "strong, sustainable and balanced growth" (Derviş and Kharas, 2011).

The importance of a complex measure of well-being represents an active concern for policy makers worldwide. José Manuel Durao Barroso, President of the European Commission, in the speech given at the "Beyond GDP Conference" (Brussels, 19 November 2007) points the importance of considering the many aspects that construct quality of life:

"For many years now, there has been a growing consensus that Gross Domestic Product is not, on its own, sufficient to guide high quality, policy and business decisions. The European Union is facing today a whole series of global and new challenges, in order to safeguard our prosperity and wellbeing. And Europe is making today a valuable contribution to meet these challenges; we are leaders on many of these: climate change, energy security, health development, to mention but a few. These are the great challenges of our time – often new, always shared challenges that transcend national borders and demand a common response."

A significant feature observed by Giovannini and Rondinella, as an outcome of the "Stiglitz Commission's" work, is the directive to reduce the emphasis toward economic indicators in favor of a multidimensional approach that considers the social and environmental well-being. Deriving from this idea is the need to define a clear set of national progress indicators that are widely legitimated and that are used as a common tool for monitoring quality of life.

Covering the Italian challenges faced when defining a set of societal progress indicators Giovannini and Rondinella debate on the OECD WP written by Saivens and Iasiello. The paper considers the following stream for action: "indicators must be developed with the participation of those who will use and learn from them".

When selecting the range of indicators used to define wellbeing one is faced with a trade-off between using classical progress indicators (fit-for-purpose indicators) that produce academically certified data and composite indexes that represent the foundation for policy incentives.

Giovannini and Rondinella analyse, in the second part of their paper, the national accounts concept that is thought to be an important hallmark for tools that guide the decisions of economic agents. The National accounts concept was constructed in the '40s with the objective of aiding macroeconomic policy analysis (Maler, 1991), thus not specifically designed to analyze individual and societal well-being. Istat publishes regularly reports such as "Human and social capital reports" based on national accounts, that are used to measure quality of life.



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Although GDP and income are not identified as the sole measures of quality of life, there are scholars, Giovannini and Rondinella included, that consider the "social" aspect of GDP as an appropriate facet for measuring well-being. Income can be analyzed from a welfare perspective, hence constructing an economic measure that is similar to individual well-being quantified by using an objective perspective. Thus, the concept of "material living standard" emerges providing a measure for material well-being. Vogel (2003) asserts that material living standards are more robust indicators from a technical point of view, given the fact that they take into account income sensibility.

Giovannini and Rondinella assert that the two main surveys that measure material well-being are: the "European Survey on Income and Living Conditions" and the "National Survey on Households' consumption". These multidimensional analyses reflect the main economic problems of families in a perspective of depravation by highlighting the changes in purchasing power.

Moreover, World Bank introduces absolute poverty measure as a facet of individual well-being. The measures, taken by countries in order to combat this indicator, are considered to be a widely accepted yardstick in evaluating the overall performance of governments (Chen and Ravallion, 2007). Defining the elements are required to have a "good life" or "a decent living" is determined both by the personal characteristics and the collective features.

3. Conclusions

A component of quality of life measurements that is gaining interest is considered to be environment quality. Kohl et al (2000) consider the environmental information as being valuable if subject to harmonization and standardization. Giovannini and Rondinella describe as the major cornerstone in measuring environmental quality, the development of pressure and response indicators. Another important aspect is the correlation between the pressure indicators (i.e. "what is taken from the environment") with measures of impact (i.e. "the ultimate effects of environmental changes and human activities"). Smeets and Weterings (1999) define, in the Technical Report No. 25 submitted to the European Environment Agency, response indicators as being "responses by groups (and individuals) in society, as well as government attempts to prevent, compensate, ameliorate or adapt to changes in the state of the environment". A similar definition is provided by Giovannini and Rondinella that delineate response indicators as describing and quantifying the society's efforts to solve environmental problems (i.e. developing protected areas).

Giovannini and Rondinella's article can be viewed as a reference point for quality of life analyses, keeping in mind the fact that it provides a detailed description on the well-being framework.



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Management Strategies and Environmental Accounting in Economic Entities. A Contribution to Sustainable Development

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Abstract: The economic transactions made in an causes interactions with the environment, in some cases occurring adverse environmental effects. Progressive degradation of the natural environment and increasing social concern before this event, converted protect the environment in one of the most important strategic actions amendment requiring entities to include consideration of environmental issues. The general objective of this study is to analyze business practices related to environmental issues, both in its accounting treatment and environmental management strategies to entities that perform activities of environmental degradation.

Keywords: *environmental management strategies, environmental accounting, environmental degradation, environmental protection.*

Clasificación JEL: M41, M48, Q20, Q51, Q56, N27.

1. Introduction

During our training and in our work as professionals, we met with many fields of study and analysis, particularly those related to accounting and management. In the study, we found that accounting is undergoing a continuous transformation, knowing and analyzing a number of areas or industries that complement.

In recent years, were presented with a special sensitivity, natural environment issues. However, due to problems caused by waste produced by industries in its production process, caused great loss of natural and serious risks to the population.

Air, water and soil, in general, have always been free and plentiful. Currently, they cannot be. Taking care of them requires a cost. Companies must produce without losing sight of the environment, something that forces them to invest in an item unusual environmental cost. Environmental costs usually are not reflected in the financial information. In our opinion, these should reflect economic reality and how the environment is affected and ultimately provide useful information for making management decisions.

Global environmental standards have been developed that attempts to protect the environment by reducing environmental pollution. For this reason, both macroeconomic and microeconomic born an interesting concept to be analyzed from the point of view of our profession, *environmental accounting*.



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Environmental Accounting is a recent branch of accounting, perhaps because it is frequently encountered among various professional researchers and organizations normalizing. Although the macroeconomic point of view is a concept widely used in micro-level has not been sufficiently treated, being found only in developed countries and in some Latin American countries, which began to consider this concept as a subject and an important area of analysis and study.

We ask the following questions: What would choose business and society, if there were no resources to exploit and produce? How can an economy survive without the natural environment, which gives us all? This, surely lead to solutions to environmental problems, to achieve efficient environmental management and resource protection regulations for businesses and conscience of society must play a controller because the end, is the recipient of the products made by the authorities and by nature.

2. Approach to environmental issues in economic entities and at the macroeconomic level

Environmental problem lies in the misuse of resources by society. There are very few companies that analyze environmental degradation, as this would involve increased costs and environmental costs, and many are not willing to sacrifice some of its utilities.

For many, the exploitation of the environment is widely associated with economic growth, aided by technology. The greatest responsibility of impoverishment of nature as a result of environmental pollution are the most important industries and multinational companies located at the top of the economy for the great technological development and production, in addition, are not willing to bring radical solutions to problems that lead to reducing its capacity to invest and monopolizing prices.

If until recently the waste emitted by furnaces during the production process, were a symbol of progress, now, due to pollution and the growing concern for the natural environment has been that companies have to change their views on what they thought it was a picture of a large and important industry, changing radically the image regarding non-contamination and environmental concern.

A change in the new form of patterns of production and consumption in the global economy directly affects the GDP of any country, given that most of its activities, both in production, consumption and service provision, directly threaten the environment either by the use of space, soil, resources and pollution generated by the production and its consumption. You cannot imagine saving the environment without causing an increase in prices of products and production stagnation?

3. Sustainable development

Economic and social development is that which meets the needs of the present without compromising future generations them to meet their own needs. Thus, we ask: *How long life left on earth?* The response so far has no solution because renewable and non-renewable resources, have not a method of depreciation to allocate an exact time of total consumption, much less a time of restoration and renewal.



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Following these statements, the concept of sustainable development rethinks the idea that man is the center of economy and rather viewed as an element of the system.

But what is obvious is the need to improve the lives of disadvantaged countries by redistributing income thus leading to a global economic balance, growing population pressure controlled to reduce resource costs.

4. Environmental Management

In recent years, companies have shown an increasing interest to help solve environmental problems which disrupt society in order to achieve ecological improvement. To develop an environmental policy in an orderly developed *environmental management systems*.

An environmental management system is a means to collect all existing programs that can be managed for environmental compliance, training, accounting and control in an organized (Tiberti: 2008). It is a management tool of analysis, of the impact of an organization on the environment (Chavan: 2005). It provides an appropriate structure for the planning and implementation of environmental protection measures. In an environmental management system is necessary for an organization to identify its effects on the environment, while promoting a continuous improvement environment (Rowland-Jones et al., 2005).

To implement an environmental management system are used international standards which aim supporting organizations in their efforts to achieve improvement of environmental performance, satisfaction of stakeholders and benefiting from an effective environmental management.

Some of the most important tools in this respect are the standards for environmental management systems such as the EMAS (the European Eco-Management and Audit Scheme). EMAS is the European environment management tool designed for help organizations continuously improves environmental performance by integrating the concept of sustainable development.

Also are used ISO standards (International Organization for Standardization), these being the international standard used to implement an environmental management system (EMAS).

5. Accounting and environmental issues

Environmental issues are the result of ecological crisis that could not be stopped or controlled. Environmental degradation, now more than ever endangered future of the human species. Even some scientists have come to the apocalyptic forecasts, if nothing is done to resolve this situation.

Preservation and conservation of biosphere, expanding the idea of perception of quality of life, with all its implications and the new concept of sustainable development, are the visible face of the current position, which was established as a response to environmental issues.

What can expect from this and subsequent revision of concepts and ideas, is the emergence of a new model for information systems as they have to enable it to adequately reflect the situation or context



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information for the analysis and evaluation of new perspectives designed according to different relevant information to users.

A good demonstration of this new perspective is given the sharp decline of thought, which we have society, regarding the fact that the work creates jobs, income, prosperity and wealth, but work such as the ecology, not necessarily generate quality of life.

5.1. Types of environmental accounting:

a) National Accounts. It is a macroeconomic measure. The term environmental accounting refers to the national economy. For example: The term environmental accounting can be used in physical or monetary units according to the nation's consumption of natural resources, being renewable or nonrenewable being. In this context, environmental accounting has been called natural resource accounting.

b) Financial Accounting. Relating to financial statements, which are based on International Financial Reporting Standards (IFRS) and Generally Accepted Accounting Principles. In this context, environmental accounting refers to estimating and reporting environmental responsibility and cost of financial terms.

c) Management Accounting. It is the process of identification, recollection and analysis of information, mainly for domestic purposes. It aims to manage costs, in particular to take account of administrative decisions in production and others.

Sarkis et al. (2006) indicates that the objective of environmental accounting is to provide accurate information and understandable to those responsible, to enable better decision making on matters affecting the financial health and the environment.

Environmental management accounting is a tool for identifying, collecting and analyzing information related to costs absorbed internally by the company, on the environment, in particular the costs associated with the waste of raw materials and production costs, elimination and outlet waste (OECD: 2005).

Gray et. al. (2001) suggest that environmental accounting should cover various issues, such as accounting for obligations / contingent risks, accounting for revaluation of assets and capital protection, analysis of costs in areas such as the energy, waste and environment , valuation of investments to include environmental factors, assessing the costs and benefits of environmental improvement programs, development of accounting techniques that express assets and liabilities, the costs of ecological and development of new accounting systems and information.

Many organizations have a responsibility to regulate the accounting profession have said their views on this issue, such as:

- EPA (Environmental Protection Agency, 1995), addresses issues related to environmental issues in various ways, such as the definition of terms, classification of costs, environmental accounting applications certain industries;

- ISAR (Corporate Accounting Transparency, UNCTAD, 1998), establishes standards and criteria for consideration of ecological concepts of operations;



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- EU Recommendation 2001/453 regarding the accounting treatment of resource flows from environmental activities;

- ICAC, in its resolution of 03.25.2002, is regarded as a pioneer in environmental matters in Europe. Are addressed in detail all transactions from enterprise interaction with the environment, establishing the criteria for analysis.

6. Traditional financial accounting and environmental accounting

How differ financial traditional accounting from environmental accounting? Traditional financial accounting measures the financial results from human consumption of capital resources. *Environmental accounting* oriented environmental protection measures, measures of natural capital resources employed in production.

In the case of the company's management, it is desirable that the beginning of the implementation of environmental accounting criteria, to follow the following steps:

- The company must develop policies regarding environmental protection;
- Make plans and to design structures for such political action;
- Establish criteria for quantification and measurement, as appropriate;
- Establish managerial actions designed to manage and monitor results;
- Keep the owners, the government and the community in relation to achievements.

Challenges of environmental accounting has to be solved are: improving communication, improving standards of recording and accounting management, improving the contribution accounting practices in terms of environmental management in companies and, ultimately, decontamination balances that omits assets currently used and must be measured and recorded.

7. Accounting relationships between the entity and its environment

Environmental Accounting can be defined as part of the accounting applied, whose goal is the accounting relationship between an entity and its environment, those that lead to differences between macro and micro accounting.

If Traditionally in micro accounting, to delineate entity is starts from the legal criteria (legal form of the entity, applicable law, etc..), in terms of environment, the entity is defined through technical analysis cycle product life and their activities, that is, from the design to eliminate all negative effects caused by the consumption of products or performance of activities. Moreover, the environment of an entity can be defined as the natural environment or their environment, including, in this second case, the natural environment, cultural and social entity over a period of time.

The possible combinations of these two basic concepts, entity and environment permit the establishment of at least three alternatives for the conceptual framework:

1. When opting for delimiting entity by legal criteria and the environment as a natural environment, environmental accounting conceptual framework is based on the traditional economy which economic science is independent of any environmental considerations except for two issues: the nature as the



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manufacturing economic resources (eg, resources that can be measured, appropriated, used and processed) and receivers of waste. Therefore, the information that it provides environmental accounting treats the classical principle of the entity and reduce at the additional inputs necessary to prevent, reduce and eliminate pollution and undesirable outputs (waste, emissions, discharges). This is the position adopted in the Financial Accounting Standards.

2. If the criterion for delimitation of the entity resulting from life cycle analysis of products and activities and environment is understood as living environment, the conceptual framework is based on the green economy, where the economic system is a subsystem of the environment in line with standards and continuous interaction with him. In this case, environmental accounting requires a new principle of the entity, which provides information about all types of social inputs and outputs. This position is most prevalent among those who promote the development of environmental accounting in the field of social responsibility.

3. Regarding the third alternative, conceptual framework has sufficient flexibility to adapt to the objectives set out above, of the accounting information required. This approach, typical management accounting allows the combination of different criteria for the delimitation of the entity and the environment, applying, as just indicated, depending on the objectives of accounting information. In this case, the conceptual framework is based on environmental economics (intermediate position between the traditional economy and the green economy), for which the economic system is related to and limited by the system environment. This alternative is a series of standards ISO 14000 (1996), 19000 (2003), EU EMAS regulations (2001).

Developing research in accounting and other various disciplines (chemistry, biology, engineering, etc.) growing concern of the standardization bodies and entities (economic and technical) and expanding environmental accounting activities, calls for agreement, in terms of fundamentals and common language and interdisciplinary.

8. The global trend

In searching for information, it was found that in developed countries accounting has already been linked to environmental issues formally, so we can call countries like Germany, Scotland, Spain, Argentina, the United States, where these issues are taken into account and realize even research studies underway, where actively participates in various organizations among which tax authorities and reputable companies. To summarize, we can say that we are familiar with terms such as *environmental accounting, environmental management accounting, green accounting, or green accounting.*



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9. Conclusions

Changes lived day after day, are consistently those drives improvement and implementing new methods for future requirements. Otherwise, the company may lose competitiveness and, in some cases, may disappear from lack of proper management of the environment.

We believe that they performed certain actions to reduce environmental impacts. However, it requires a greater commitment to sustainable development.

The most used strategies, applied of environmental managers, refers, in most cases, at the legal aspects. Environmental policies used by managers are not formally implemented. Many of them have used isolated measures to correct negative externalities, in particular in accordance with the regulations in this area.

From an accounting perspective have taken several actions were issued proposals and have generated numerous documents, but their practical application is far from theoretical postulates. Discrepancies between academic language and entrepreneurial behavior manifest reality distancing environmental issues.

Companies do not keep accounts by identifying the operations on the environment. Financial elements on the environment, are presented in conjunction with other accounting items, therefore, there is no information to assist in the calculation of the environment result.

In the total capital is important to include natural capital as a priority information system of national accounts, since it is considered controlling production processes and consumption of resources, being more accurate and significant preventive quality.

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Harmonization of accounting in the process of globalization of economic activities

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Abstract. Once with the Romania adhering at the European Union the public accounting system was transformed and adapted according to the requirements imposed by the international public sector accounting standards (IPSAS). This fact had imposed the appearance of legislative norms and provisions adapted to the actual requirements, by taking into account the growing and complex level of economic activities where the irreversible process of globalization takes place.

The changes due to the economic politics, especially the new configuration of the international economic relations, relations characterized by an intense and irreversible process of globalization, have conducted to the implementation of a unitary and uniform legislation, particularly for the member states of EU. The accounting reform has begun through the harmonization of legislation according to the requirements and provisions of International Accounting Standards and European Directives.

The ampleness and the rapid rhythm of informational society's development have implicitly leaded to the development of accounting information's importance and dimension. The decisive role of the accounting information had conducted to the accentuated growth of the interest, manifested at all informational society's level, from the development of activities in financial and economical domain point of view.

The accounting normalization process imposed the development of norms and provisions necessary to the drawing up of accounting documents, by defying methods and a specialized terminology, applied in the activity of entities and accounting specialists.

Keywords: financial security, public accounting system, accounting harmonization, international public sector accounting standards (IPSAS).

JEL Codes: M41

1. Introduction

The accounting depreciation is realized through the inuring accounting norms and regulations, improved in order to provide an identical compatibility and interpretation of the events and transactions performed in many states, more precisely to offer exact information for the investors, by reflecting the economic performances in a credible, relevant, veridical and intelligible manner.



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2. Globalization of economic activities

This objective can be realized with the help of authorized institutions and organizations that established very clear the implementation methodology and the stages and periods of time, for all the participating countries to international economic transactions. At global level is imposed the implementation of an unitary standard for accounting documents, offering this way the access to accounting information according to the needs and requirements of the applicant, regardless of the level of complexity and utility of these information.

The transformations which took place because of the economic activities globalization process offer new directions to accounting and fiscality, directions that aim to satisfy the needs of multinational companies for informing, the validation of accounting information among the national accounting system and the creation at international level of a financial indicators system for all the participants. The fulfilment of this objective is influenced by the fiscal interest of the state, an interest promoted through specific juridical regulations and proper economic and fiscal politics. Based on the application way of universal accounting principles and conventions, the analysts draw attention on the economic priority of events and transactions compared with the fiscal priority. Such conceptual frame is founded on fundamental objectives and principles that accounting norms and proceedings are created on, objectives which are approved by the liberal accounting profession.

The complying with this frame can lead to the independence of accounting towards the fiscal norms and regulations, giving to managers the opportunity to establish the way the financial situations are presented, as long as the fundamental principle of accounting, principle of sincerity, is respected. In other words, the data contained in accounting documents can be processed based on norms, principles and proceedings characteristic to the universal accounting law, without interferences from the state. In these conditions, the investors could form an opinion regarding the reality of financial position and performance of the enterprise and their decisions regarding the investments can be successful. The promoting of the substance over form principle leads to a fund mutation concerning the presentation of annual financial situations; this way the accounting is free of imposed juridical norms and regulations, and the relation between accounting and fiscality is neutral with regard to the users of financial information. Therefore, the accounting represents a privileged source of information for fiscal organisms, as the majority of fiscal taxes and duties is established based on information provided by the accounting.

It is difficult to determine a relation between accounting and fiscality, because in reality the two of them are reciprocally influencing each other, as accounting offers a prime material for the calculation of taxes and other fiscal obligations and the fiscality influences accounting through specific regulations that have as objective the collection of financial resources for the state budget, the local budgets and other public organisms, resource necessary to both the state and the administrative territorial institutions.

As the main source of data, the accounting is delimited of fiscality and tries to be neutral, but also comparable as a communication system for all users of accounting information. Analyzed from the relation



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between fiscality and fiscal administration point of view, the accounting is transparent to fiscal administration in comparison with fiscality. A generating source of information, accounting is delimited from both fiscal administration and fiscality. In order to be neutral, and also compatible as a communication system with it users, the accounting must be based upon clear, relevant, principles and norms, to use a proper, standardized and uniform terminology.

Through accounting, the allocation of revenues and expenses during the financial exercise must be underlined. The fix assets evaluation is made through the acquisition cost, the production price, the utility value, the just value or other similar values. In public institution, the evaluation of fix assets is made with the help of inventory, realised in every year. The pluses or minuses and the value depreciation is underlined in the accounting evidence.

The fundamental problem of the report between accounting and fiscality is composed of the principles, norms, regulations found in the accounting and fiscal law, principles that are not compatible in all cases, because the accounting information is formalized through laws and the fiscal information is based upon clear norms and principles defined by the fiscal law, this fact establishing the dependence of accounting on fiscality.

When the manager analyses the risks, he works with a team of analysts and applies a series of techniques and methodologies in order to identify solutions to any practical problems. As a general rule, the analysis of the report between accounting and fiscality of an enterprise imposes taking into account the fiscal risk resulting from the application of fiscal regulations. The public institutions credibility and the level of trust that citizens have in these institutions are factors which help to the good functioning of the society.

The International Public Sector Accounting Standard (IPSAS) is based on the content of the International Accounting Standard no.1 *The presentation of financial situations,* standard published by the International Accounting Standards Committee (IASC).

The International Accounting Standards Board (ISAB) and the International Accounting Standard Committee Foundation (IASCF) were established in 2001 in order to replace IASC.

The International Accounting Standards elaborated by IASC are applied until they are with draw by IASB.

Texts extracted from IAS 1 are reproduced in the publication of Committee for Public Sector of International Accountant Federation with the permission of IASB.

The Council of International Accountants Federation for International Public Sector Accounting Standards (IPSASB) elaborates accounting standards for public institutions, known under the name of International Public Sector Accounting Standards (the IPSAS).

IPSASB recognizes the significant benefits of obtaining financial information comparable in all jurisdictions and considers that all IPSAS will play a key role in fulfilling these benefits. IPSASB encourages the governments and the national specialists to implicate in the elaboration of personalized standard harmonized with IPSAS.

IPSASB issues IPSAS concerning the financial reporting based on cash accounting and commitment accounting. The IPSAS for the commitment accounting are based on the International Financial Reporting



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Standards (IFRS), issued by the Council for the International Accounting Standards, where the requirements of these standards are applicable to the activities specific to public sector. Also, it refers to financial reporting problems specific to public sector, which are not covered by IFRS.¹

Thus, the commitment accounting adopted by the public sector represents an important objective of the public finances reform, because in an international and European context, it brings more benefits to the users of financial information, as:

- > The commitment accounting is more complex than the cash accounting
- > The public institutions are obliged to keep track of assets, debts, capitals, revenues and expenses
- Provides a clear image of the assets and debts of public institutions
- > Permits the costs measurement and a better analysis of the activities and programs cost
- Puts the accent on transparency and accuracy

> Offers information regarding the performance or the non-performance obtained by public institutions in economic terms and not only of the cash availabilities. Starting from these benefits, Romania also assumed the responsibility of applying the commitment accounting. This fact was gradually realized, starting with 2002, through the adoption of some important regulations, such as:

> The methodological norms on commitment, co-ordination and payment of budgetary expenses (2002)

> The methodological norms on the organization and management of budgetary revenues accounting (2002)

> The methodological norms regarding the re-evaluation and depreciation of fix assets found in the public institution patrimony (2003)

> The methodological norms regarding the organization and management of the public institutions accounting. The accounting plan for public institutions and application instructions of it (2005)

> A new budgetary classification harmonized with the European System of Accounts – SEC 95 and the Governmental Financial Statistics GFS 2001 (2005)

> The methodological norms for the approval of new models of financial situations (2006).

The IPSAS adaptation on global level will improve both the quality and the complexity of the financial information provided by the entities that belong to the worldwide public sector. IPSASB recognize the governments and the national specialists' rights to establish the accounting standards and the directions for financial reporting in their jurisdictions.

IPSASB encourage the IPSAS adoption and the harmonization of the national requirements with IPSAS. The financial situations will be describe as being done accordingly to IPSAS only if they are conform with all the requirements of applicable IPSAS.

IPSASB fulfils its objectives through:

The issuing of international public sector accounting standards

¹ www.ipsas.org



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The promoting of standards and international convergence to this standards

> The publication of other documents that offers directions regarding the problems and experiences in the financial reporting in the public sector.

IPSASB issues also other publications without authority, including case studies and occasional papers that concern the problems of financial reporting in the public sector.

These standards are applied through:

> the issuing of IPSAS standards that applies to commitment accounting and IPSAS that applies to cash accounting

> IPSAS establishes the recognition, evaluation and description requirements and information regarding the transactions and events in the general financial statements.

IPSAS are configured so they can be applied to general financial situations of all entities in the public sector.²

The entities from public sector include the national governments, regional governments (a state, a province), the local authorities (a town, a locality) and their component entities (departments, agencies, councils, committees) if there are not other observations made.

These standards are not applicable to the business government enterprises, because these apply the International Financial Reporting Standards (IFRS) which are issued by the International Accounting Standard Board (ISAB).

During this process, IPSASB tries every time is possible to maintain the original text and accounting treatment of IFRS, with the exception of the cases where an important problem of the public sector justifies an exception from those and treats the problems of financial reporting of public sector which are not accordingly treated from certain points of view by the existing IFRS, or if the IFRS have not been issued for those specific cases.

In accounting, the asset represents a resource, with a positive economic value, resulted from past events and which will generate economic benefits in future.

The asset defines the way the capital is allocated and used, it underlines how the revaluation of the economic resources takes place and their level of liquidity, and is perceived usually as economic assets.³

The fix assets are goods and values that have a long value of use and which are not consumed from the first use, but in time, as a result of a repetitive utilization.

Starting with 2006, all the public institution are oblige to keep the accounting according to the organization norms established according to the International Public Sector Accounting Standards (IPSAS)⁴,

⁴ www.ipsas.org

² www.ipsas.org

³ Ionescu Cecilia, Bases of Accounting and Proceedings , Fundatia Romania de Maine Publishing House, Bucharest, 2007



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issued by the International Public Sector Accounting Standard Board (IPSASB). This institution elaborated a series of standards as it following, which came into force starting with 1st of January 2005:

IPSAS 1	The financial situations presentation		
IPSAS 2	The cash flow situations		
IPSAS 3 The net surplus or deficit of the period, fundament errors and changes of the			
accounting politics			
IPSAS 4	The effects of the exchange rates fluctuation		
IPSAS 5	The costs of debts		
IPSAS 6	Consolidated financial situations and the controlled entities accounting		
IPSAS 7	The investments in associated entities accounting		
IPSAS 8 The financial reporting of the interests in shared association			
IPSAS 9 Revenues from exchange transactions			
IPSAS 10 The financial reporting in hipper inflation economies			
IPSAS 11 Construction contracts			
IPSAS 12	IPSAS 12 Stocks		
IPSAS 13	IPSAS 13 Leasing contracts		
IPSAS 14	IPSAS 14 Events subsequent to date of reporting		
IPSAS 15	IPSAS 15 Financial instruments: information to provide and present		
IPSAS 16	IPSAS 16 Investments in immobile		
IPSAS 17 Tangible assets			
IPSAS 18	IPSAS 18 Segments reporting		
IPSAS 19	IPSAS 19 Provisions, contingent debts and assets		
IPSAS 20	Information to provide regarding the bound parts		
IPSAS 21	The assets depreciation, other than the cash flows		

The fix assets owned by the public sector are part of the financial situations presentation according to IPSAS 1, and are formed of:

- > The intangible fix assets
- > The intangible fix assets in progress
- The tangible fix assets
- The tangible fix assets in progress
- > The financial fix assets

3. Conclusions

In order to realize the analysis and the patrimony administration, the data and information must be organized in an information system. The events and facts that generate the data are identified, the objectives of the management are established, the owners of information and the way the data are registered and collected are underlined, the methods and instruments for these data processing are chosen, the information destination is defined and the transmission to beneficiary is organized.



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Actual cash financing situation of SMEs in Romania and further recommendations

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Abstract.

The world is experiencing a revolution in the digital and mobile technologies, with more information available more quickly and for more media than ever before. In this context, SMEs can turn to cloud solution. Although the advantages of using the cloud are compelling for SMEs this shift involves financial costs. In Romania the rate of access to funds is very low. In this context, SMEs need additional assistance to obtain funding.

Keywords: SME financing European funds, cloud computing, Document Type Definition, XML, SOAP/REST

JEL Codes: M15 IT Management

1. Economic indicators of SMEs in Romania

"Romanian SMEs use to produce a 70% of the country's GDP and provides about 70% of employment labor" in 2008. [www2]. Currently these percents do not exceed 65%. We consider the SME a sector of strategic interest for the economy, being the most active sector of the economy. According to the White Paper on SMEs in Romania, 2008 Edition, 98.2% of all companies active in the country, achieved a turnover of up to two million and 92% of these were micro enterprises. If by 2008 all macroeconomic indicators (GDP, CA, unemployment) had an upward trend, since then they are in constant decline, as an effect of the crisis event.



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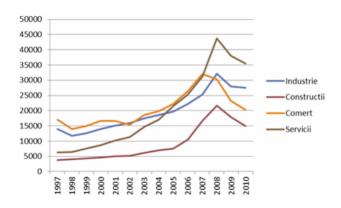


Fig. 1: Estimating the contribution of SMEs to economic growth in the medium term [www3]

GDP is a very sensitive to commerce domain. Pushing it by 1% would bring a significant increase (1.7%) of the overall GDP. [www3]

In the last three years many SMEs (about 90,000) became insolvent. Of these 19,900 companies became insolvent in 2009, 21,700 in 2010, 24,078 in 2012 and about 28,000 in 2013 shows the National Office of the Trade Registry. From all the Romanian firms entered insolvency only 4-6% avoided bankruptcy compared to 20% of EU firms. Among these companies that became insolvent over 70% were in the field of carry trade, transportation / warehousing, manufacturing and construction.

However in 2011-2012 were established more than 250,000 companies, particularly in the wholesale trade, agriculture, forestry / fishing, and professional, scientific and technical field. [www4]

As may be seen in the figure 2, the estimated GDP growth is roughly equal (about 2 %) for all European countries, except for Lithuania and Latvia (over 4%). It is interesting to know if the growth of GDP is due to exports, tourism, or internal services or other fields of activity. Romania, along with Great Britain, Sweden and Malta, have a lower unemployment rate of 8%. This indicator would be satisfying if unemployment in Romania would be evenly calculated. However taking into account the people who support themselves from farming (villagers) and the seasonal working migrants gone abroad which are not included in the statistics, unemployment in Romania could exceed even that of Ireland and Slovakia, which is greater than 12%. The purchasing power of money in Romanian is lower even those in Lithuania and Latvia, where inflation in these countries is higher than 2 %.



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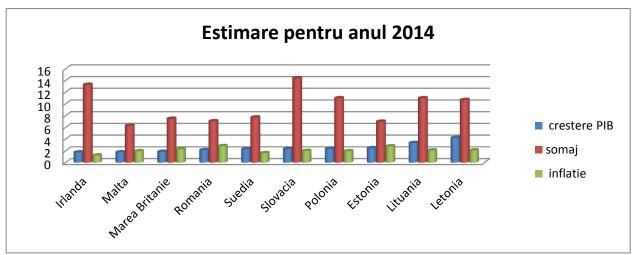
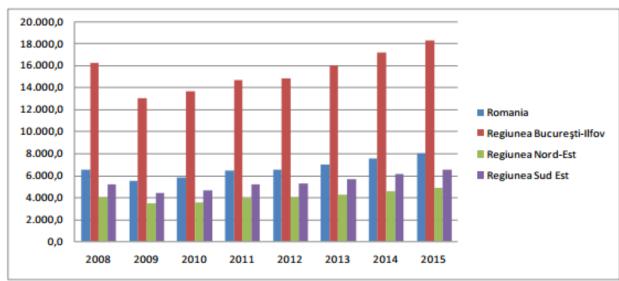


Fig. 2: Estimated GDP growth, unemployment and inflation for 2014 [www4]

Romanian National Prognosis Commission estimated the values of GDP growth for the period 2014-2015, will be even higher than in 2008. The figure 3 shows that GDP is formed particularly in the Bucharestllfov region where values are even twice larger than those formed in the region of Southeastern Romania.



Sursa: Prognoza în profil teritorial 2012-2015, Comisia Națională de prognoză Fig. 3: Trend GDP growth for 2015 [NPC, 2012]



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2. Sources of funding for SMEs

Attracting capital is one of the preconditions for starting a successful business (especially for SMEs) and to ensure its durable development. Using its own resources or loans it is often insufficient to new firms, called start-ups, excepting those with strong growth potential. Risk aversion often leads investors and banks to avoid financing start-up companies. On the other hand, many entrepreneurs need advice over the advantages and disadvantages of different forms of financing and look out for ways to present investment projects to potential investors.

With the advancement in the life cycle, the SMEs gradually adjust the capital structure [La Rocca, 2011]. Over years some SMEs establish a positive history thus having the ability to provide security to investors and banks. This serves to enhance the creditworthiness of the company and, therefore, attract the attention of investors who could invest money in this business. As a result, companies are starting to replace domestic sources of external finance, including venture capital and bank loans to name a few of them. In the more advanced stages of their life cycle when SMEs become more visible, they may develop access to securitized debt and publicly listed equity markets. [Abdulsaleh, 2013]

SMEs can apply to internal and external funding sources:

A. **Internal funding sources** have some advantages like preserving the independence and financial autonomy because it creates additional obligations (interest, collateral) as a reliable means of financial support for the company's needs. Also, internal sources have associated disadvantages because the owners have fewer funds to invest in other more profitable activities than the current one.

Internal funding sources are:

1. Contributions from owners or associate members, i.e. equity finance. During the initial stages of development of SMEs, internal equity financing is most often used as the company cannot prove that it can return a loan but having a very good business plan. Fortunately not all entrepreneurs fail to convince potential donors with their business plans, so they have no need to resort to personal savings at this early stage (start- up). In later stages of development SMEs tend to reduce dependence on equity financing and start looking for alternative channels for raising capital. Internally generated profits and venture exemplifies only two other financing options that SMEs may use as they grow. [Abdulsaleh, 2013]

2. Resources generated by the company (profit).

B. Sources of external funding

Loan required for an SME activity is obtained analyzing the indicators for development costs, which are influenced by the future development of the SME. This need should be determined at the planning stage of development. Depending on the characteristics of these necessities, the company has to develop a funding policy. External funding is required if the SME does not have sufficient internal resources to cover the investment required for the planned activities. [Onicioiu, 2012]

External financing of SMEs include:

1. loans - granted by banks to SMEs



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2. grants - Romania 's accession in EU has brought many opportunities for financial support for small business (Horizon 2020)

3. capital market instruments - securitized debt and publicly listed equity markets.

4. government assistance and government initiatives

5. *Islamic finance for SMEs* - The rapid growth of Islamic finance has triggered a potentially promising new trend in finance, which is not limited to Islamic countries because Islamic finance has spread to non-Muslim countries with significant Muslim populations, including the U.S., UK and Australia.

If you consider the age of SMEs, it is found that [Onicioiu, 2012] :

- a. firms less than five years, largely are self-financing;
- b. companies operating between 5 and 10 years using factoring, grants or loans from specialized financial institutions;
- c. companies operating between 10 and 15 years, were financed by issuing shares on the stock market, they turned to credits and leasing, loans from specialized financial institutions and some have accessed the National Credit Guarantee Fund for SMEs;
- d. Companies operating over 15 years were financed by issuing shares on the stock market and grants.

2.1. Stage accessing European funds by Romanian companies

Structural Consulting Company Consulting [™] Group during 7 to 14 February 2011, implemented a survey on the difficulties of accessing funds, through the portal www.fonduri-structurale.ro. Responses came from a number of 314 SMEs. General conclusions drawn from the survey in many situations were major delays in the evaluation phase, delays of payments (pre and repayments) even 15 months in some cases, poor communication involving authority's management processes, lack of transparency reimbursement mechanism, problems in accessing loans for financing, high interest rates on loans obtained, sometimes causing termination of the contract. Another obstacle to applicants and beneficiaries was more than expected postponement of the launch funding lines cases where companies have invested time, money and human resources in writing projects that came to be "obsolete" over time. Lack of predictability was also highlighted through long periods of time between project approval and contracting them effective.

Overall Romania receives 26.1 billion Euros in 5 structural funds: Cohesion, Regional Development, Social, Environment and Rural Development. Besides Cohesion Policy and the Common Agricultural Policy funds will be directed under Territorial Cooperation Policy, where we have operational cooperation programs with Hungary and Bulgaria [IUCR, 2013]

Degree of accessing European Founds is almost 19%. (fig. 4)

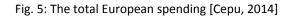


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Fig. 4: Rates of absorption of European funds [Cepu, 2014]

EU _{total budget} 138 683.4 M€	România 3 445.5 M€		X
13 094.4 M€		58.7 M€	Cercetare și dezvoltare
48 490.4 M€		1 163.7 M€	Politică regională (fonduri structurale și de coeziune)
59 096.2 M€		2 135.5 M€	Agricultură
2 374.5 M€		24.4 M€	Cetățenie, libertate, securitate și justiție
7 063.6 M€		49.1 M€	Acțiuni și programe în afara UE**
8 564.4 M€		18.2 M€	Administrație





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3. Cloud computing for Romanian SMEs

Currently, the market tends to be dominated by cloud computing solutions that are reducing costs, as applications, technologies and data are available on a server, and clients pay only service packages tailored to business conducted in the form of subscription. Joining the cloud brings other advantages such as minimal initial costs of implementation (not unbalancing the company's cash flow by hiring qualified IT personal for application development), maintenance may be kept remote thus not requiring in-house specialists, provide access to the new technologies in the field, etc.

Cloud computing solutions respond well to the requirements of SMEs, as they have less financial and human resources allocated for integration of information technology in their work field, so they have no supplementary costs. The cloud solutions enable purchase of services with a small initial investment, without involving in-depth knowledge of IT solutions which is well tailored to SMEs.

In order to take advantage of cloud computing paradigm an ordinary company must first check the enterprise architecture framework, focusing on methodologies, the knowledge database and the management processes. These should be compliant to principles and international standards for IT governance.

For business processes to be supported by data and application components at any organizational level - commercial, technical, operations and financial - several directions must be followed:

- 1. Identify key business domains, core functions and owners to create a responsibility map;
- 2. Increased attention and effort towards real time processing;
- 3. Database server consolidation;
- 4. Common infrastructure for development.

IBM Institute for Business Value research reveals that six key attributes of cloud can be used to stimulate business model innovation path: the cost of flexibility, scalability, business, market adaptability, complexity hidden variability due to events and business ecosystem connectivity [Saul, 2012]. These attributes can be optimized by consultancy business strategy and technology for the next generation cloud service delivery platform for SMEs (Ex. IBM SmartCloud, offers a robust set of services computing, storage, backup, SAP, security and unified communications), designing and implementing cloud computing.

It was found that firms with a coherent strategy for integrating digital can successfully transform business models and may provide new directions for the benefit of entire industries by adapting the client and model transformation at the operational level. The first goal can be achieved using the new capabilities of mobility, interactivity and access to information. The second requires the integration of all business activities and Reflectors how data on these activities are correlated optimal [Saul, 2011].

Depending on the technology they have access to SMEs join the Internet virtual space to expand their business processes on foreign markets. At this point, the probability of SMEs to expand is shrinking for certain domestic market, causing the companies to seek for new foreign markets. [Kamakura, 2012]



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4. Case study

Many cloud systems bases on SOAP/REST technologies which relies on XML formatted data message change. A problem may rise to ensure data persistence in such way to interrogate large historical build data packages. One way to solve this issue is to use OWL or any other ontology tool to read directly the XML files into taxonomic/hierarchical directories from the knowledge databases. A simpler way is to map the XML file into a relational database that grows accordingly to the frequency of changed messages. After this stage some may easily query the whole database using common SQL sentences.

Data mapping transforms an XML document into relational tuples and inserts them into the relational database whose schema is generated in the schema mapping phase. A main factor in mapping successfully XML data structures into fixed-length field tables is the DTD schema. DTD stands for Document Type Definition and is meant to define the legal building blocks of an XML document and the relationship between the various elements that form the documents. Also, DTD allows computers to check that each component of document occurs in a valid place within the document. [www5]

One example of DTD file which describes a nested XML file may be seen in the following table:

DTD File	XML File
xml version="1.0" encoding="UTF-</td <td><!DOCTYPE notes</td> </td>	notes</td
8"?>	I
notes SYSTEM "Note.dtd"	ELEMENT notes (note*)
<notes></notes>	ELEMENT note (to,from,body)
<note></note>	ELEMENT to (#PCDATA)
<to>Radu</to>	ELEMENT from (#PCDATA)
<from>Rocsana</from>	ELEMENT body (p+)
<body></body>	ELEMENT p (#PCDATA)
Don't forget me this weekend!] >
I'll call Friday anyway	

The XML file is used to insert data into generated database schema. This trivial data structure may be split into two indexed tables, one containing the heading info, the other the body text content, like in the picture below:



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		BODY	
ID PARAGRAPH		FK	
		Don't forget me this	
	1	weekend!	1
		I'll call you on Friday	
	2	anyway	1
)ata Manning

	NOTE	
ID	ТО	FROM
1	Radu	Rocsana

Fig. 6: Data Mapping

SAXParser is used to fetch data from XML file. The code for parsing the XML tree and generating the relational tuples is shown below:

```
import javax.xml.parsers.*;
import org.xml.sax.*;
import org.xml.sax.helpers.*;
import java.io.*;
public class ReadLibrary extends DefaultHandler {
   public static void main(String[] arguments) {
        if (arguments.length > 0) {
            ReadLibrary read = new ReadLibrary(arguments[0]);
        } else {
            ReadLibrary read = new ReadLibrary("C:/Users/Rocs/Desktop/chapter21/Note.xml");
        1
    }
    ReadLibrary(String libFile) {
        File input = new File(libFile);
        SAXParserFactory factory = SAXParserFactory.newInstance();
        factory.setValidating(true);
        try {
            SAXParser sax = factory.newSAXParser();
           sax.parse(input, new MessageHandler() );
        } catch (ParserConfigurationException pce) {
            System.out.println("Could not create that parser.");
            System.out.println(pce.getMessage());
        } catch (SAXException se) {
            System.out.println("Problem with the SAX parser.");
            System.out.println(se.getMessage());
        } catch (IOException ioe) {
            System.out.println("Error reading file.");
            System.out.println(ioe.getMessage());
```



}

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```
}
class MessageHandler extends DefaultHandler {
   static int READING NOTE = 1;
   static int READING TO = 2;
   static int READING FROM = 3;
   static int READING BODY = 4;
   static int READING_P = 5;
   static int READING_NOTHING = 0;
   int currentActivity = READING_NOTHING;
   Note note = new Note();
   Body body = new Body();
   MessageHandler() {
       super();
    }
    public void startElement(String uri, String localName,
       String qName, Attributes attributes) {
        if (qName.equals("note"))
        {
            currentActivity = READING NOTE;
           Note.Id++;
        }
        else if (qName.equals("to"))
           currentActivity = READING TO;
        else if (qName.equals("from"))
           currentActivity = READING_FROM;
        else if (qName.equals("body"))
           currentActivity = READING_BODY;
        else if (qName.equals("p"))
        {
           currentActivity = READING P;
            Body.Id++;
        }
        else
           currentActivity = READING NOTHING;
    }
    public void characters(char[] ch, int start, int length) {
        String value = new String(ch, start, length);
        if (currentActivity == READING TO)
           note.To = value;
        if (currentActivity == READING FROM)
              note.From = value;
        if (currentActivity == READING_P)
        {
            body.Paragraph = value;
           body.Fk = Note.Id;
        }
   }
```

public void endElement(String uri, String localName, String qName) {



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```
if (qName.equals("p")) {
          System.out.println("\tid: " + Body.Id);
          System.out.println("\tpar: " + body.Paragraph);
           System.out.println("\tfk: " + body.Fk);
          body = new Body();
      if (qName.equals("from")) {
           System.out.println("from: " + note.From);
       if (qName.equals("to")) {
           System.out.println("id: " + Note.Id);
           System.out.println("to: " + note.To);
       1
       if (qName.equals("note")) {
          note = new Note();
       }
    }
}
class Note {
   static int Id;
   String To;
    String From;
}
class Body {
       static int Id;
       String Paragraph;
       int Fk;
```

The result is shown in the next figure:

Fig. 7: Eclipse IDE Java Console Result



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5. Conclusions:

Given the high rate of insolvency for Romanian SMEs and the low rate of accessing European funds it is necessary to increase the pace towards e-business and the cloud/grid computing solutions seem to be the appropriate answer to the virtual organization that groups different kinds of resources (financial, human, data, etc.) scattered on the globe for a common lucrative goal.

6. Acknowledgement

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Estimation and valuation in accounting

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Abstract: The relationships of the enterprise with the external environment give rise to a range of informational needs. Satisfying those needs requires the production of coherent, comparable, relevant and reliable information included into the individual or consolidated financial statements. International Financial Reporting Standards IAS / IFRS aim to ensure the comparability and relevance of the accounting information, providing, among other things, details about the issue of accounting estimates and changes in accounting estimates. Valuation is a process continually used, in order to assign values to the elements that are to be recognised in the financial statements. Most of the times, the values reflected in the books are clear, they are recorded in the contracts with third parties, in the supporting documents, etc. However, the uncertainties in which a reporting entity operates determines that, sometimes, the assigned or values attributable to some items composing the financial statements be determined by use estimates.

Keywords: valuation, estimation, valuation basis, historical cost, fair value, change of estimation, financial statements

JEL Codes: M41

1. Introduction

In addressing this issue, the whole approach is based on the discrepancy between the views of professional accountants and those of the theorists in the field. This discrepancy increased with the generalization of the theoretical research, generating a lack of intelligibility for practitioners. Our opinion is that an alienation of theory from practice and vice versa only leads to a limitation of satisfying the need of financial-accounting information of the users. Therefore, we believe that research should be directed towards associating the theoretical research information to the information provided by the reality of the economic environment in which the activities but also the evolutionary behaviour of users develop.

Specialists consider that the beginning of the financial crisis from 2008 in USA represents the most serious convulsion of the international finances since the Great Depression of 1929-1933. The effects of the actual crisis spread, beyond the financial sphere, into the world economy as a whole, affecting the economic growth and the labour market and generating a series of related effects, with incidental or



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medium or long term implications regarding the structure of the global financial system and its interface with the real economy as a result of the universality of the economic-financial crisis.

The transfer of the adverse effects of the crisis from one country to another is based on the increasing interdependency of the national economies within the process of intensifying the globalization of markets, including the financial ones. If the financial system of a country crashes or is paralyzed, then its economy can no longer function normally given its multiple interference with national and international financial systems.

In order to control the adverse effects of the financial crisis, it is absolutely necessary to know in depth the causes that generated it and maintain it and to instrument organic policies and means connected to local, regional, national and international levels.

Placing the value at the centre of the bodies developing the accounting standards' reasoning basis can induce the assumption that information is transmitted effectively within the market, generating a price of the shares that represents a true reflection of the performance of that entity, while every serious economic crisis brings significant doubt on the same association. We can say that we are dealing with a crisis evaluation.

... from many points of view, the current financial crisis is connected to valuation (Noyer, 2008).

The ability to achieve a proper valuation is the key to financial activity, because in order to buy or sell a financial instrument is important, objectively necessary, to know its value. Also, after the purchase of a financial asset or the contraction of a financial liability, valuation is the key to success in the risk management implied by this element, but also in reporting the created value to shareholders of the company. The credit crisis produced in 2007 was the cause for the loss of jobs for many CFOs, but also for the bankruptcy or sale of many financial institutions. Over time, two major problems have emerged as being those that led to this crisis. One of these is represented by the models used to determine the fair value, too narrow models to connect the changes emerged in the real estate price to the values of those financial instruments whose active support they were, by a more or less complex structure. The second problem is the lack of providing some information that has to be known by some investors, a lack that would have stopped even the best valuation technique from generating a significant level of accuracy. (Deventer, 2008)

2. Fair value, alternative of the historical price

Currently, we are witnessing a reformulation of the accounting model upon the value, which consists in reconsidering the fundamental principles of valuation. Accounting evolves form the principle of the historical cost to that of the current value.

Questioning the valuation of the historical costs is not a new issue. The inflationary times, characterized by significant price increases, have shown that historical cost accounting provides a distorted picture of reality: both the balance sheet items and the expenses with amortization and stocks from income



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and loss accounts are underestimated. In these conditions, the result is overrated and its distribution leads to allocations from the entity's capital.

Searching for alternative values for the historical cost has as a purpose the improvement of the quality of the financial statements and the attempt to use reliable and relevant information for all the users.

Using the fair value could contribute significantly to improving the financial information increasing the interest of the users, but it can also be highly subjective, allowing for manipulation by those who estimate it and, consequently, for distortions of the financial statements. This phenomenon may occur when the use of the fair value is not accompanied by adequate disclosure of information in annotations.

The use of fair value is a widely debated topic at present, the major financial institutions recognizing, in the financial statements, losses of several billion dollars, mostly from the use of the fair value as valuation basis. The main criticism against it is that it requires the inclusion in the result of some "virtual" elements arising from the market development, leading to a result characterised by a high volatility. This does not mean, however, abandoning the fair value as a valuation basis. The purpose assigned to fair value accounting and market-based valuations does not seem to be exaggerated if we integrate it into the picture that presents the characteristics of the financial markets in an emerging world.

Switching from a historical cost-based accounting to one based on fair values has been catalogued as a conceptual revolution in accounting. The objective of fair value-based accounting is to reflect market values into the financial statements, with the all risks related to the fact that the estimation of this value remains a subjective process, especially when it is made in the absence of a market, which involves not only professional judgment but also the possibility of manipulation by the person whom performs it.

For the first time, the fair value was mentioned in the Romanian accounting regulations in 2001, then in 2002, when it was chosen the connection of the Romanian accounting to international accounting standards and, subsidiary, to the European ones, which were not updated in the context of the international convergence. Today, by waiving the mentioned rules and the adoption of the (updated) European directives, we remain in the spirit of international accounting standards and therefore the acceptance of fair value. The current accounting regulations accept the fair value valuation only for the revaluation of fixed assets, for asset swaps, for free of charge received goods, for financial instruments from the consolidated financial statements. Thus, it was chosen a mixed system based on historical cost and fair value, in which the valuation at the historical cost prevails.

The desire of the international setters is to broaden the practice of fair value valuation of all balance sheet items. The controversies regarding this have not hesitated to appear, being considered that fair value presents a risk of results' manipulation, being in fact an accounting estimate that may lead to creative accounting-like behaviours. Therefore, broadening the application of fair value valuation does not enjoy the greatest support from the accounting profession because "in all the environments, not just in Europe, not only in the French banks, there is a resistance to fair value". (Gelard Gil, IASB member)



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3. Accounting estimates, necessity and opportunity

The relationships of the enterprise with the environment give rise to a series of informational need. Satisfying those needs requires the production of coherent, comparable, relevant and reliable information included into the individual or consolidated financial statements. International Financial Reporting Standards IAS / IFRS aim to ensure the comparability and relevance of the accounting information, providing, among other things, details about the issue of accounting estimates and changes in accounting estimates.

The frequently asked question, both by the formulators of accounts and by the users of accounting information, more or less competent, is: *Why should we estimate some information from the financial statements*?

The answer to such a question varies, on the one hand, depending on the purpose of each user of financial information and, on the other hand, to determine the monetary valuescorresponding to the selected valuation bases for the elements that make up the financial statements. Related to this latter aspect, we note that the International Accounting Standards refer to the concept of *accounting policies* as specific principles, bases, conventions, rules and practices applied by an entity in the drafting and presentation of the financial statements. Therefore, the valuation bases are accounting policies that significantly affect the analysis of the balance sheet, profit and loss account, cash flow panel, the panel of changes in equity and notes to the financial statements.

In order to develop an efficient information system based on estimation techniques, we need to know first which are the elements of financial statements that have to be evaluated by resorting in order to estimates, leading to obtain the current value in the financial statements.

For realizing this process it is required the choice of a convention, valuation bases identified by the IASB, through its conceptual Framework, such as historical cost, current cost, feasible value (of settlement), the updated value.

Although the most common valuation basis adopted by businesses in the financial statements is the historical cost, the IASB Board does not impose a specific base. Thus, the entities use different valuation bases uniquely or in various combinations. In Romania the historical cost is used in most cases, a situation driven by the Romanian companies focus on verifiability of the information obtained my means of this Convention.

Thus, obtaining a current value of an asset in the financial statements will also depend on the circumstances in which both the entity and the asset are. The existence of such circumstances allows the entity to determine, in fact, some estimated values at a certain time. The desire is that these values represent the best estimates, given the circumstances.

The estimates are judgments based on assumptions and future projections regarding items that cannot be accurately assessed at present. In the accounting practice, we can use estimates especially for:



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 determining the amount of the depreciation provisions of debts and stocks in order of bringing them to the estimated net realizable value;

- determining the amount of provisions for risks and expenses;
- determining the amount of provisions for satisfying contracted securities;
- determining the useful lives of intangible and tangible assets;
- determining the residual value of an asset;
- determining losses from construction contracts in progress, etc.

Most of the times, the effect of accounting estimates takes the form of revenues and expenditures, which means they affect the profit and loss account both of the financial year in which the estimate takes place and of the future financial years, if the estimated item unfolds over several periods.

4. Accounting estimates regarding inventories

According to IAS 2 "Inventories", the valuation of stocks at balance is realized at the lower value between **the cost and the net realizable value**, **representing** the estimated selling price that could be obtained in the ordinary course of business, less the estimated costs of completion and necessary costs of sale. In this case historical cost valuation basis and realisable value valuation basis combine.

At the financial year's end, the inventories in storage are inventoried, during which time the possibilities of recovering the cost of these stocks in the following period is analysed. Given that the estimated value is recovered, meaning that the price at which they could be recovered is less than the cost, the inventories should be valued at the lower value between the cost and the net realizable value.

The depreciation of inventories cost may be partial or total, due to their damage through obsolescence or if their selling price has suffered a reduction. At the same time, the cost of inventories may not be covered, given the fact that the estimated cost necessary to achieve the sale has increased.

The balance items should be reflected in the annual financial statements at a value lower than the value that can be obtained through their sale or use, which means the reduction of inventories value below the cost, to the net realizable value, that is the estimated selling price that could be obtained during the ordinary course of business, less estimated costs of completion and necessary costs of sale. Any recognized depreciation shall be treated as an expense of the period and not as an expense of the inventory cost.

Therefore, the inventory cost is not recoverable if the inventory is in one of the following situations is damaged, is entirely or partially obsolete, the selling price decreased or the estimated cost of completion and sale of the product has increased.

Example 1:

A company purchased imported goods that require packaging and labelling works. The incurred expenses are shown in the following table:



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- m.u	
Purchase price invoiced by the supplier	62,500.00
Customs duties paid (10%)	6,250.00
Customs fee (0.5%)	312.50
VAT paid in customs (24%)	16,575.00
Transport costs along the country	8,925.00
Manipulation expenses	250.00
Expenses for checking the quality of goods	1,750.00
Insurance premium for the goods	2,250.00
Commercial discount granted by supplier	1,500.00
Exchange difference	250.00

The enterprise estimates that the goods will be sold at the price of 150,000 m.u. The sale will require sale preparation costs of 65,000 m.u., effective selling costs of 20,000 m.u.

- m.u. -

Selling price	150,000
(-) Sale preparation costs	65,000
(-) Effective selling costs	20,000
(=) NET REALISABLE VALUE	65,000

In compliance with IAS 2, in our example the minimum between 69,062.50 m.u. and 65,000 m.u. is 65,000 m.u. Therefore, this is the value of stocks that will be recognized in the financial statements.

5. Accounting estimates regarding tangible assets

Estimating depreciation

International accounting standard IAS 16 "Property, Plant and Equipment" provides that the depreciable amount of a tangible asset should be systematically (meaning that depreciation must be based on a method chosen when accounting the asset) allocated throughout its useful life. The depreciation method chosen should reflect the pattern of consumption of economic benefits expected as a result of using the asset, and must be applied consistently throughout the usage period of that asset.

The calculation of a tangible assets depreciation implies an whole number of reasonable estimates *both for determining its useful life, its residual value* but also *the initial costs for the asset decommissioning and site restoration* (for long-term assets), in accordance with allowed alternative treatment in IAS 37 "Provisions, Contingent Liabilities and Contingent Assets".



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A specific reasoning applies when estimating the useful life of the assets. This is based on both the professional judgment (based on the entity's experience in using similar assets) and updated cash flows to be generated by that asset. Therefore, determining the duration of the utility is actually the utility expected by the in relation to the asset, considering many factors such as:

• estimated level of the asset usage, given the expected capacity or physical output of the asset;

• expected physical wear and tear of the asset, which, in its turn, depends on the operating conditions such as the number of exchanges in which the repair and maintenance program performed by the enterprise is used, the maintenance and asset conservation method, etc.;

• the obsolescence that asset is subjected as a result of changes in the structure of market demand for goods and services provided, to which the asset subject to depreciation is part of;

• the legal limits regarding the possibility of using the asset (where goods are the subject of a finance lease).

Example 2:

In order to achieve a contract regarding the provision of 360,000 pieces in three years, a company has manufactured a special machine whose production cost is 180,000 m.u.

The estimated value of the production and the pieces delivery schedule were fixed by agreement with the client, as follows:

- in year 1: 72.000 pieces
- in year 2: 90.000 pieces
- in year 3: 198.000 pieces

The machine is taken out of operation at the end of the third year.

The enterprise does not wish to apply the classical methods of depreciation (linear or degressive, for example) because they do not lead to a real rate of depreciation of that machinery. Therefore, the company decided that depreciation should be based on the quantities produced, as follows:

- in year 1: 180.000 X 72.000/360.000 = 36.000 m.u.
- in year 2: 180.000 X 90.000/360.000 = 45.000 m.u.
- in year 3: 180.000 X 198.000/360.000 = <u>99.000 m.u.</u>

180.000 m.u.

The estimation of the residual value arises from the very definition of IAS 16, and it represents the amount that the enterprise expects to obtain by reselling the property at the end of usage period, amount of which the value of the transfer expenses is reduced.



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Estimating the impairment of assets

If an asset is considered depreciated when its useful life ended, an asset is considered impaired when the input value, adjusted with the accumulated depreciation, is greater than the recoverable amount (IAS 36 *Impairment of Assets*).

To be able to assess the recoverable amount of an asset we must, first of all, to be able to estimate the net selling price and the usage value of that asset, and the maximum of the two values will represent the recoverable amount.

We should specify the fact that not always the both landmarks must be evaluated. If the selling price is higher than the net accounting value. then the asset is not considered impaired. In these circumstances, the amount of utility is no longer necessary to be determined.

a. The best estimate of the selling price of an asset is that related to a sales contract, in which the price is objectively determined and adjusted depending on the additional costs attributable to the disposal. When such a contract of sale does not exist, then the best estimate of the selling price is the market price (the current auction price, the price of the most recent transaction), except the costs of disposal of property (legal fees, postage costs, costs regarding the asset movement, additional costs of sale, etc.). If the asset does not have an active market and no sales contract with an objectively determined price, then it is taken into consideration the prices of the recent transactions for similar assets, from the same economic sector.

b. Regarding the valuation of the utility value, this is more complicated, as it requires overcoming two stages:

<u>Stage 1</u>: estimating future cash flows arising from the continued use of the asset and the latest output (residual value), and

<u>Stage 2</u>: updating the future cash flows (associated with the use of the asset) using appropriate updating rates.

In order to estimate the future cash flows associated with the use of the asset we must take into account several variables, namely:

- management's best estimates based on the set of existing economic conditions throughout the remaining useful life of the asset;

financial projections and forecasts approved by management over a period of 5 or more than 5 years, if applicable;

exploration of previous forecasts for the coming years, based on a constant increase / decrease
 rate (not greater than of the branch, country or geographical area corresponding to the business activity);

the possibility that the asset be used or not continuously;

- the existence of related cash inflows associated with the usage of the asset and attributable to this on reasonable or practical basis;

- the existence of cash flows when selling the asset, at the end of its useful life.



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In estimating future cash flows, we should not include the effects of any future possible restructuring, not yet committed, or future capital expenditures, which will increase the initial asset performance or cash flows generated by the income tax.

If the involvement of foreign currency flows is also forecasted, then the associated cash flows will be changed at the exchange rate at the balance sheet date, according to IAS 21 "The Effects of Changes in Foreign Exchange Rates".

Regarding the update of future cash flows, we specify that after estimating the value of future cash flows, this it will be updated at a update rate (rates) (to cover the specific risks of the market – monetary risk, price risk, country risk) prior to the taxation of income that will reflect the time value of specific money and risks. Usually, the update rates are rates of return on investment that would generate the same amount of cash flows, during the same time interval and the same specific risks involved. They can be assimilated with the default rates on market for transactions with similar assets or the average weighted interest rate (capital cost rate) for a company listed that has a single asset (or portfolio of assets) similar in potential and risks to the analysed asset.

6. Accounting estimates related to provisions

According to IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*, the value of a provision shown in the financial statements should be given by the best estimate of the required costs in order to settle the present obligation, at the balance sheet date. When the time-value effect of money is considerable, the provision is formed at the update value of the expenditures expected to be required in order to settle the obligation. To estimate these costs, the existence of similar transactions and, in some cases, the opinions of independent experts will be taken into account.

Presentation of debts clients (doubtful clients) on the balance sheet, when claims are likely not to be recovered entirely, will be realised at the realizable value by correcting the input value with the value losses caused by estimating their degree of non-recovery.

7. Changes of accounting estimates

Estimates represent approximate sizes determined by certain circumstances existing at a certain moment. National and international accounting regulations allow and at the same time require the review of any estimates when changes on the initial circumstances on which that estimate was based on or as a result of new information or a new experience or subsequent developments occur.

The effect of a change in accounting estimates should be included in determining the net result during:

a) the financial year of change, if the change affects only the financial year in question, or



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b) the financial year of change and future financial years, if the change affects both the current financial year and the next.

Estimates are periodically reviewed and modified if necessary. The question is whether such a change calls into question the results of previous financial years. The answer is no. Indeed, the international accounting standard IAS 8 but also the current Romanian accounting regulations stipulate that the influence of a change in accounting estimate should affect the net result of the current financial year and, if appropriate, those of the following years. The results of the previous financial years should not be changed.

Example 3:

In the financial year N-1, to account for the risk of insolvency of a customer, company ALFA has made a provision estimated in the amount of 55,000 m.u. At the end of financial year N, it is estimated that the situation of this client improved, so that a provision of 30,000 m.u. should be enough. This change in estimate is entirely found in the result for the financial year N. The expenses for the financial year N-1, according to the rules, are not affected. The adjustment of the provision will only affect the financial year N, in which will be accounted as follows:

December 31/N

Provisions for clients impairment	=	Reversal of provisions	25,000 m.u.
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Example 4:

Company BETA possesses an equipment purchased at the price of 60,000 m.u., on April 1 / N-3. The estimated duration of use at the time of purchase was 10 years. The following impairments were applied:

- in the financial year N-3: (60,000 /10) x 9/	12 =	4,500 u.m.
- in the financial year N-2: 60,000 /10	=	6,000 u.m.
- in the financial year N-1: 60,000 /10	=	<u>6,000 u.m.</u>
	16,500 u.m.	

Taking into account a more intensive use of the equipment, at the end of the financial year N it is estimated that the useful life will be reliably of eight years. Net book value at 31 December/N-1, of 43,500 m.u. (60,000-16,500 = 43,500) must be depreciated, therefore, during the remaining useful life of 5.25 years (5 years and 3 months or 5.25), where the following depreciation expenses appear:

- in the financial year N: 43,500/5.25 = 8,285.714, instead of 6,000
- in the financial year N+1: 43,500/5.25 = 8,285.714, instead of 6,000
- in the financial year N+2: 43,500/5.25 = 8,285.714, instead of 6,000
- in the financial year N+3: 43,500/5.25 = 8,285.714, instead of 6,000



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- in the financial year N+4: 43,500/5.25 = 8,285.714, instead of 6,000
- in the financial year N+5: (43,500/5.25) x 3/12 = 2,071.428, instead of 6,000
- in the financial year N+6:
- in the financial year N+7:

0, instead of 6,000 0, instead of 6,000

We can notice that the impairments prior to the financial year N have not been corrected; instead, the impairments of the financial year N and the future ones have been corrected.

A change in accounting estimate is not, by itself, an extraordinary item. The incidence of change is, in fact, an element of the same category (ordinary or extraordinary) as the element whose change was modified.

Example 3 (continuation):

If the depreciation of claim against the client in question was initially considered as an ordinary activity, the resumption of the provision is also an ordinary activity.

When a change has a significant incidence on the current financial year or is likely to have it on future financial years, its nature and size should be mentioned in the financial statements. If the size in question cannot be quantified, this aspect must be reported.

In many cases, it is difficult to distinguish between changes in methods and changes in estimates. The IAS 8 standard clearly outlines this doubt, considering that the amendment shall be treated as a change in estimate.

8. Conclusion

As a conclusion to those presented above, we consider that the issue of estimates, as a work and valuation procedure, should be systematically addressed by each entity, taking as a starting point defining the objective of financial statements, their structure but also the qualitative requirements, which must be met by the information contained in financial reporting.

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