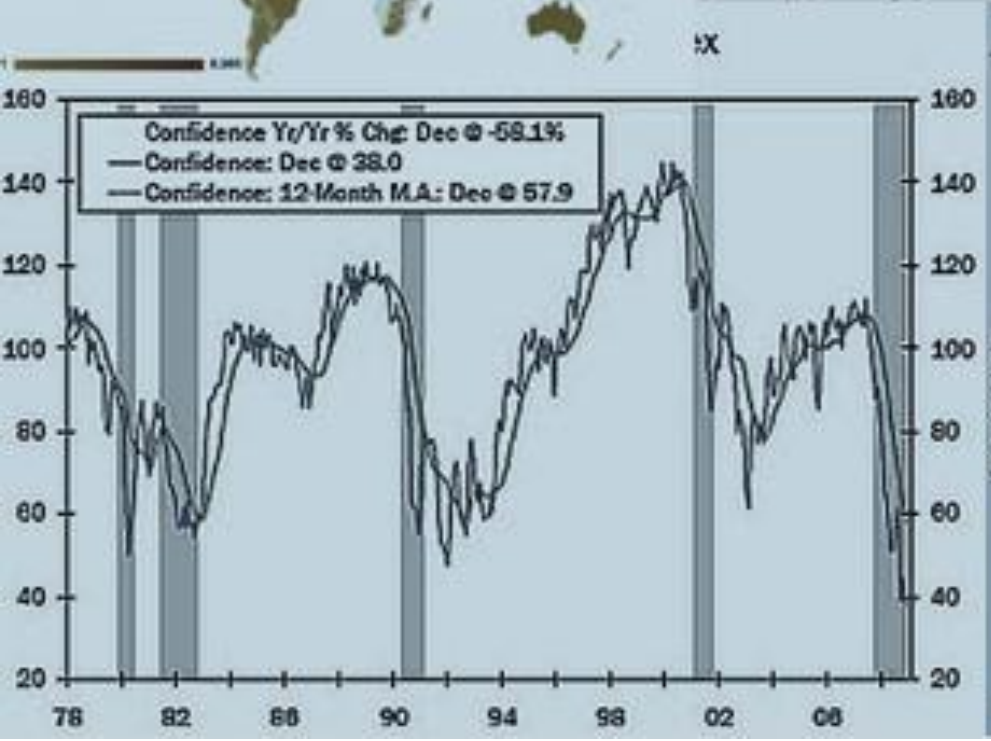
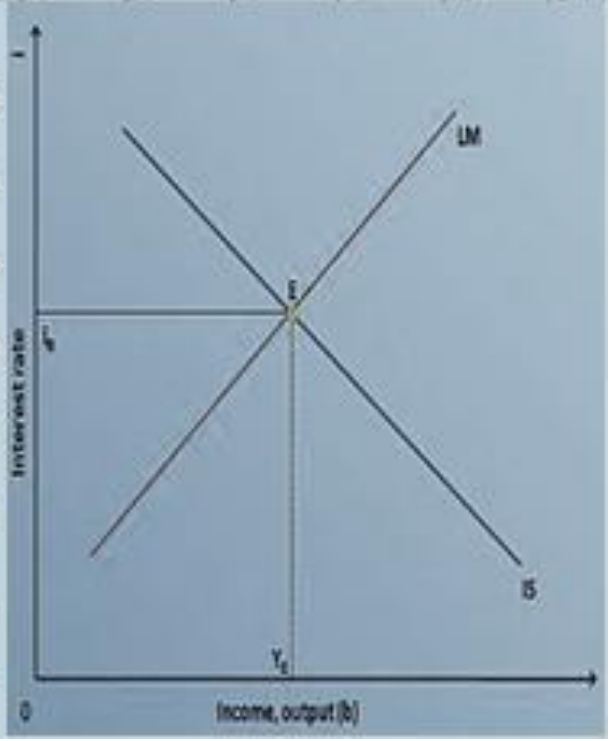
Vol. 7, Issue 4, 2019
ISSN 2343-7995 (online)

Hyperion Economic Journal





HYPERION ECONOMIC JOURNAL

Quarterly journal published by
Faculty of Economic Sciences
Hyperion University of Bucharest
Romania

YEAR VII, ISSUE 4, DECEMBER 2019
ISSN 2343-7995 (online)

Editorial Office: Hyperion University, Faculty of Economic Sciences,
Calea Calarașilor no. 169, district 3, Bucharest, 030615
http://www.hej.hyperion.ro hej@hyperion.ro

CONTENTS

ACCOUNTING INFORMATION - NOTICE OF AN EFFICIENT DECISION SYSTEM

Ana-Maria Comandaru (Andrei), Ph.D Student
IOSUD-SDSE Valahia University of Targoviste, Romania, annyys13@yahoo.com

Liliana Paschia, Ph.D
Faculty of Economics, Hyperion University, paschialiliana@gmail.com

Sorina Geanina Stanescu, Researcher
Institute of Multidisciplinary Research for Science and Technology, Valahia University of Targoviste, geaninastanescu@yahoo.com

Mihaela Denisa Coman, Researcher
Institute of Multidisciplinary Research for Science and Technology, Valahia University of Targoviste, cmndenisa@gmail.com

ABSTRACT: *Accounting has become a practical activity, which has the role of providing the accounting information needed to make correct and efficient managerial decisions. The informational activities specific to the accounting field are those regarding the production and use of accounting information. These consist of actions aimed at creating, collecting, storing, processing data, and transmitting the information. They involve recording and calculating operations, as well as analyzing, interpreting, grouping, and using the information in decision making. In the present research, we set out to identify and emphasize the importance of using the information collected by the accounting information system, so that users can substantiate the decisions taken, by relevant information in each field. The purpose of any economic activity is to make a profit based on it the managerial decisions adopted. Thus, we consider it appropriate to study broadly the ratio of accounting information - efficient decisions, which has an important role in strengthening the requirements related to good governance.*

Keywords: accounting, information, decision, efficiency

JEL cod: M41

INTRODUCTION

Globalization and internationalization of markets, increasing competition, the complexity of economic, legal, and social life have led to the increase of the importance of financial information in substantiating decisions. Over time, accounting has been the source of information for all those interested in the financial activity and performance of an economic entity (Bran-Stan, 2012; Margarit-Stanescu, 2012). Increasing information needs to shape the progress of contemporary society and accounting information plays an essential role in the development of all economic activities (Collier, 2015).

The current economic environment is characterized by instability, risk, and uncertainty are frequently encountered and decision-makers are required to give due importance to all financial-accounting reports (Drury, 2013).

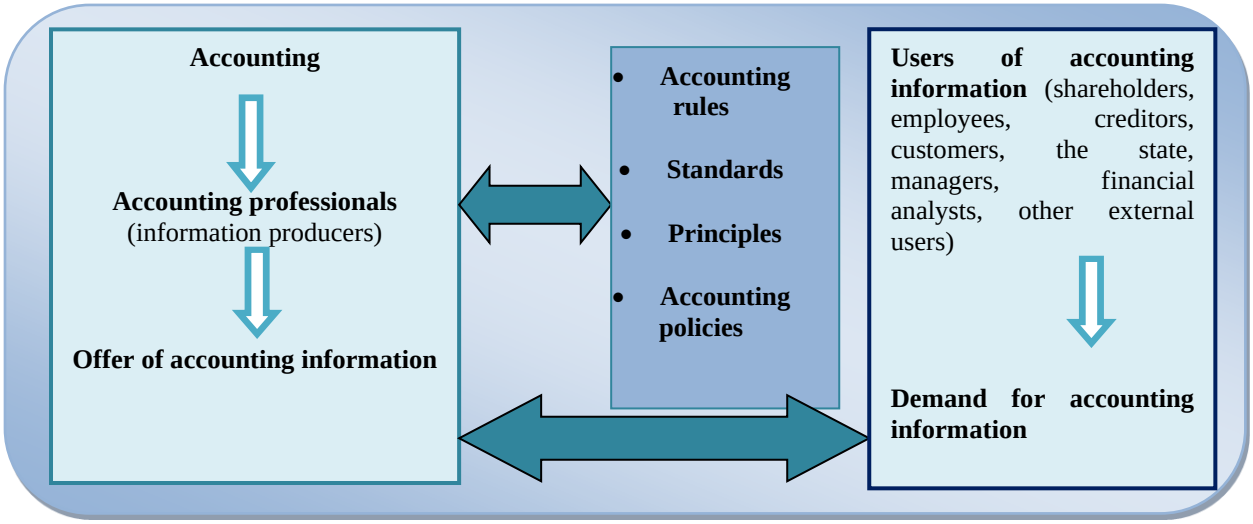
In this article, we intend to study the "accounting information market", balancing the demand with the existing offer, respectively, the users of information with their producers, to highlight the usefulness of the accounting information for the entire economic environment.

1. ACCOUNTING INFORMATION - NOTICE OF AN EFFICIENT DECISION SYSTEM

Accounting is "the art of recording and systematizing, in a significant way, the monetary value of commercial transactions and financial events, of preparing summary accounting documents and interpreting the results" (Feleaga & Ionascu, 1998). In other words, accounting is the main source of information for many actors in the economic environment, having the task of elaborating economic records regarding the movements of assets, liabilities, equity, income, and expenses (Coman, 2012).

In the market of accounting the demand for information is confronted with the supply of information, in the role of the consumers being the users of information, each with their informational requirements, and in the role of the producers, the accounting professionals (Stanescu, 2018). Thus, two camps are outlined that are not antagonistic but, on the contrary, that they must work together to achieve the desired financial performance. Also, there is on this stage of accounting information, the third category of actors normalizes or those who carry out accounting rules and regulations, their role being the arbitrators of the accounting environment.

Figure no. 1. The market for accounting information



Source: Own projection

The market for accounting information is influenced by many factors, such as the pressure of users of accounting information, the existence of the Anglo-Saxon accounting system and the continental accounting system - each with specific rules, so different - the attempt of international accounting bodies to reach a set of common rules needed for all accounting professionals to "speak the same language". In these conditions, the question arises whether the ultimate goal of accounting – the true and fair view – is fulfilled or is simply at the discretion of the producers and consumers of accounting information.

This concept is of Anglo-Saxon origin, the phrase "true and fair view" appearing for the first time in the Companies Act (1948). As a remark, the expression "true and fair view" replaced the phrase "a true and correct view" which was used by the British to introduce, by the 1900s, the obligation to publish and audit the balance sheet. The expression change was made under the pressure of the British accounting profession and had an important connotation: "a true view" became "true view" and "correct" became

"fair" (honest, sincere, loyal); accounting professionals consider that a word as "correct" is far too accurate to render accounting and auditing practices.

Traditional European accounting did not refer to concepts such as "loyalty" or "fidelity" concerning accounting information, and this was because Europeans were adept at accurate accounting. The mathematical origins of accounting (established through studies of the relation of accounting with society) led to the idea that accounting information must be correct, accounting being a "precision instrument," or introducing a notion as "true and fair view" would have brought with it an important degree uncertainty. And yet, the notion of a true and fair view appeared on the European scene, being introduced by the Fourth Directive (July 25, 1978) which states: "The annual accounts must give a true and fair image of the assets, the financial situation and the results of the company."

The concept of true and fair view was taken over by the Romanian accounting. Article 24 of the Order of the Ministry of Public Finance no. 1802/2014, the legislator stipulates that "the annual financial statements must provide a faithful picture of the assets, liabilities, financial position and profit or loss of the entity." The same regulation can be found in Accounting Law no. 82/1991, updated and republished, in article 30, letter b) "the annual financial statements offer a faithful image of the financial position, the financial performance and of the other information regarding the activity carried out", with the observation that in the accounting law it is required to the persons who deal with the management of the respective entity (administrator, authorizing officer) and the obligation of assuming in writing (by a written declaration) the responsibility for the preparation of the financial statements under the legal provisions in force.

The true and fair view is a necessary feature of the accounting information reported, it is a fundamental objective of the financial statements. In other words, the true and fair view can be regarded as an imperative to which all the accounting rules, principles, and policies are "obeyed", thus becoming a guiding principle, a meta principle. However, the concept of a true and fair view is somewhat ambiguous. This lack of precision, clarity is given, on the one hand, by the fact that the image is provided by the manufacturers and presented to its users, and on the other, by the fact that fidelity implies that the manufacturer of the accounting information takes into account its recipients, presenting the data as for himself. Faithfulness implies a complete, sincere, clear, and precise notification.

The true and fair view is a representation in which one can trust; then, how can one explain the idea that there may be more true and fair views? Perhaps because the true and fair view is not an exact copy of reality. One of the definitions given to the true and fair view belongs to Geoffrey Alan Lee, who, in 1982, established "Today, the true and fair view has become a term of art. It involves the presentation of accounts drawn up following generally accepted accounting principles, the use of figures as accurate as possible, making estimates as reasonable as possible or arranging them so that they can provide, with all the limitations of current accounting practices, the most objective image possible, without errors, distortions, manipulations or significant omissions. In other words, both the letter and the spirit of the law must be considered" (Lee, 1982). In theory, it can be considered that the information presented by the accounting is correct, sincere, and complete, but in reality, more and more professionals are obliged or willing to reflect in a distorted way the accounting information.

Presenting an objective image of the business, without distortion, without significant errors, omissions of any kind or manipulations is the premise of preparing financial statements that provide a true image of the financial position and performance of an entity, thus highlighting the accounting truth. The question "is the accounting or not able to issue an objective truth and message?" it was a topic of reflection also for Professor Mihai Ristea, who in the paper "Libertate și conformitate în standardele și reglementarile contabile" quoted the Frenchman A. Cibert, who stated: "There are as many truths as there are recipients of information and, to the extent which excludes quality, the reducing effect of each measurement is inevitable."

Taking this quote as a starting point, Mihai Ristea concluded: "Consequently, being a stake for different social protagonists, the truth given by accurately representing the financial position and performance must be searched according to the interests of the producers and users of information. The truth provided by accounting can only be for the users a compromise between expectations and demands, and for the

producers, a relation between sincerity and regularity (respecting the fundamental principles and rules)." (Ristea & Dumitru, 2012).

The comparison of the demand with the offer of accounting information highlights the importance of their construction and emphasizes the quality and usefulness of the accounting information as a result of accounting, and a result transmitted mainly through the publication of annual financial statements.

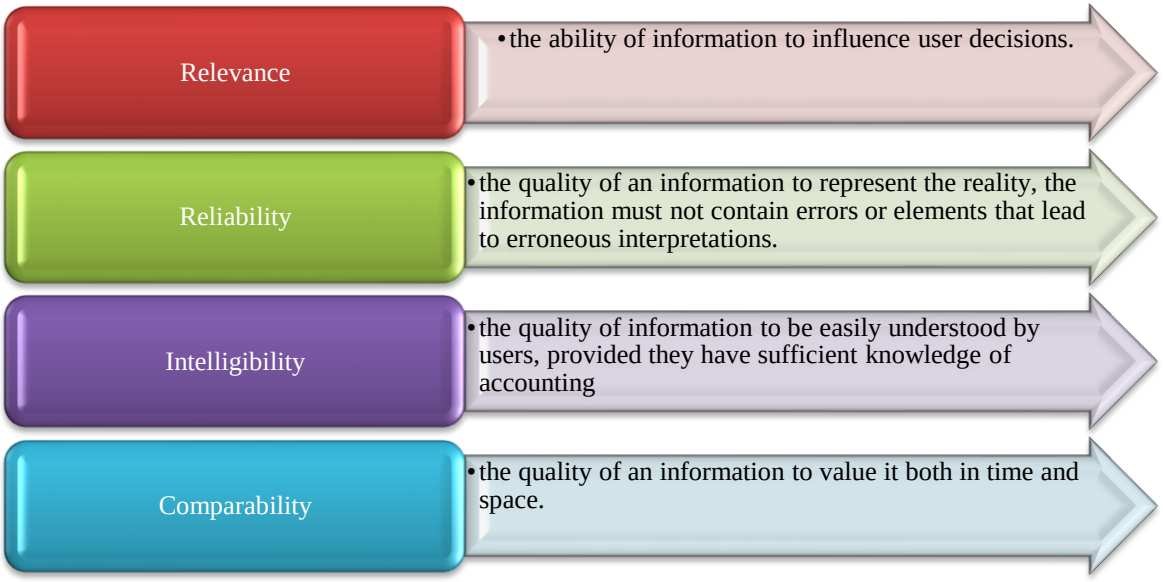
"The accounting information is constructed using a specific language, rules that allow the encoding and decoding of the represented data. The accounting language and rules ensure the orderly and intelligible representation of economic reality. The usefulness of the accounting information in financial communication is proved under the conditions in which the receivers use it to understand the economic reality of the company and to make decisions." (Minu, 2002).

The existence of several accounting systems leads to the establishment of different objectives of accounting and, implicitly, to the existence of several specific rules. This shows, once again, that accounting principles are not absolute, but rather relative, interpretable. In these circumstances, we can say that the main objective of any accounting system must be to provide useful information regarding the financial entity's position and financial performance.

Accounting information is useful if they meet certain quality criteria. The qualitative characteristics of the accounting information differ depending on the fact that each accounting system has a dominant user in its foreground: the state, in the continental accounting system, respectively, the shareholders, in the Anglo-Saxon accounting system.

The specialized literature presents the main quality characteristics of the accounting information as follows: relevance, comparability, reliability, and intelligibility, and highlights that they were first defined by the American conceptual framework, and subsequently taken over by the other conceptual frameworks and accounting normative systems (Figure no. 2). We should mention that these characteristics differ in form and name, but not, in essence, depending on the country-specific accounting regulations.

Figure no. 2 Qualitative characteristics of accounting information

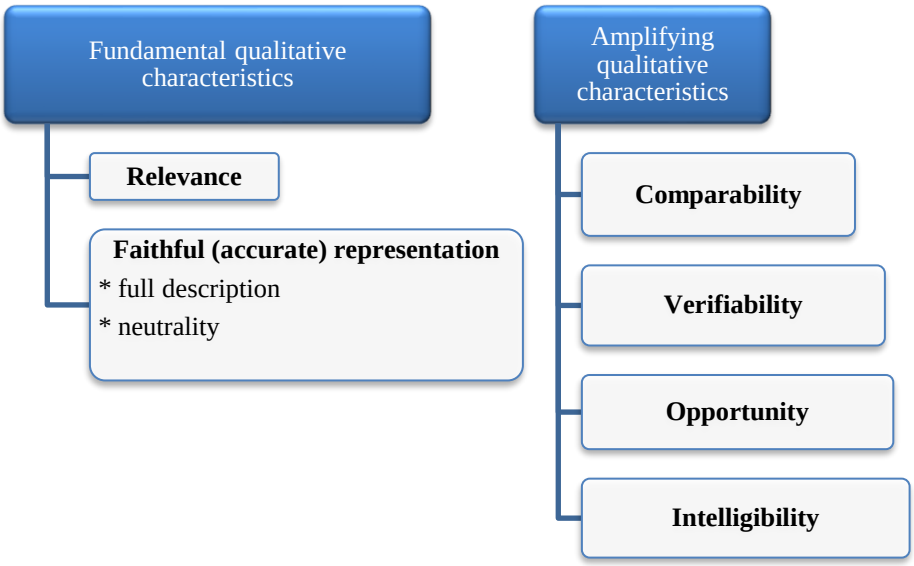


Source: Own projection

The Romanian accounting system has taken over the qualitative characteristics of the accounting information presented in the financial statements from the general conceptual framework of financial reporting issued by the IASB. (section 2.3. of the Order of the Ministry of Public Finance no. 1802/2014).

According to the Order of the Ministry of Public Finance no. 1802/2014, "For the financial information to be useful, it must be relevant and represent exactly what it intends to represent. The usefulness of financial information is amplified if they are comparable, verifiable, timely, and intelligible ".

Figure no. 3 The characteristics that make useful the accounting information transmitted through the annual financial statements made by the Romanian companies



Source: Own projection

Over time, accounting in Romania has undergone a profound reform to respond to the information requirements and challenges specific to the new economic, political, and social conditions (Ionescu, 2018; Ionescu, 2020). The taking over by the Romanian normalizers of the qualitative characteristics of the accounting information defined by the IASB conceptual framework has led to the creation of a standardized accounting system whose objective is to provide financial information.

At the international level, the process of accounting standardization and harmonization has determined the standardized and regulated character of accounting information as a final product of accounting. Accounting standardization has led to obtaining comparable accounting information in time and space and has reduced the discrepancy between the two world-recognized accounting systems.

Accounting has become "a complex technique for recording and reflecting the economic-financial reality of an entity, and an information system adapted to the needs of users, a management and communication tool that ensures the integration and dialogue of the company with its external environment" (Minu, 2002). Nowadays, the purpose of accounting is to make and transmit the financial information necessary to the users to make decisions.

CONCLUSION

As we have presented the accounting is today a practical activity that provides accounting information necessary for making correct and efficient management decisions. The accounting information system includes the operations of registration and calculation, as well as the analysis, interpretation, grouping and use of this information in decision making. Nowadays, the information needs are increasing, due to a growing demand for information. Accounting is the one that balances the demand with the offer of accounting information and makes available to the users relevant, reliable, intangible and comparable information.

Accounting is a specific form of information transmission, which describes events quantified in monetary units. Accounting is a set of elements for organizing, coding and transmitting descriptive information. The transmission of information through accounting language starts from the idea of allocating resources in order to reach a goal or objective, in the extended scope of resources, including both financial and technical means for human resources.

REFERENCES:

1. Bran-Stan N.C., Margarit-Stanescu S.G., Coman M.D., and Dragulescu-Ghita, R.. (2012). "Accounting and extra-accounting information-valences in meeting the financial analysis". Procedia-Social and Behavioral Sciences, vol. 62, pp. 531-535.
2. CECCAR (2015), "Practical guide for applying the accounting regulations regarding the individual annual financial statements and the consolidated annual financial statements approved by OMFP no. 1802/2014", Bucharest: CECCAR Publishing House.
3. Collier, P. M. (2015). "Accounting for managers: Interpreting accounting information for decision making". John Wiley & Sons.
4. Coman, M.D., Denisa, C. M., & Florina, B. R. I. (2012). "Managerial accounting–a source of information for an efficient management in SME", Procedia-Social and Behavioral Sciences, vol. 62, pp. 521-525.
5. Drury, C. M. (2013). "Management and cost accounting". Springer Publisher.
6. Feleaga N. and Ionascu I. (1998), "Tratat de contabilitate financiara (Financial accounting treaty)", vol. I, Bucharest: Editura Economica.
7. Ionescu C.A., Coman M. D., Paschia L., Gudanescu Nicolau N. L. , and Stanescu, S. G. (2020). "Sustainable Economic Intelligence: A New Dimension of Information Provided by Non-Financial Indicators". In Improving Business Performance Through Innovation in the Digital Economy (pp. 117-143). IGI Global.
8. Ionescu C. A., Coman M. D., Cucui G., and Stanescu S. G. (2018). "Supply Cost Minimization Using Mathematical Models and Methods of Optimization", Journal of Science and Arts, vol. 18, issue 2 pp. 397-404.
9. Malciu L. (1998), "Cererea si oferta de informatii contabile (Demand and supply of accounting information)", Bucharest: Editura Economica
10. Minu M. (2002), "Contabilitatea ca instrument de putere (Accounting as a power tool)", Bucharest: Editura Economica.
11. Order no. 1802/2014 for the approval of the Accounting Regulations regarding the individual annual financial statements and the consolidated annual financial statements.
12. Ristea M., and Dumitru C.G. (2012), "Libertate si conformitate în standardele si reglementarile contabile (Freedom and compliance in accounting standards and regulations)", *Bucharest:* CECCAR Publishing House.
13. Stanescu S.-G., Paduraru Horaicu A., Comandaru Andrei A.-M., (2018). "The role of the accounting profession in achieving the objectives of sustainable development", Annals of' Constantin Brancusi 'University of Targu-Jiu, Economy Series, vol. 1.
14. Margarit-Stanescu S.G., Bran-Stan C.N., Ionescu Eftene N., and Boca Rakos I.S. (2012). "Coverage of environmental information in annual financial statements in a responsible manner". Procedia-Social and Behavioral Sciences, vol. 62, pp. 526-530.
15. Stanescu Margarit, S.G., Stan Bran., N.C. (2011). "Relevance of economic instruments used in sustainable development process", Annals o the niversit o Petroşani. Economics, vol. 11, pp.155.

THE ENVIRONMENTAL IMPACT REFLECTED IN THE ACCOUNTING AND CALCULATION OF COSTS, THE RESULT OF AUDITING AND CERTIFICATION OF ENVIRONMENTAL INFORMATION

Mihaela LIXANDRU (LEASĂ-LIXANDRU)
Târgoviște University of Valahia, Romania
mihaelalixandru89@yahoo.com

ABSTRACT: *The environmental impact is a key factor in carrying out the activity of the economic entity, it is evaluated and reflected based on the activity of the environmental audit and it represents the foundation of the implementation and development of environmental policies at microeconomic and macroeconomic level. In this regard, the audit of environmental risks at the business economic entity level will highlight the efficiency of the management process, outlining a managerial process based on reducing the environmental footprint, while highlighting the evolution of methods from a scientific point of view by disseminating the results of the environmental audit, thus discovering improved methods that will be used in the future for environmental impact assessment and implicitly will increase the degree of the methods' validity. The purpose of this paper is to highlight the importance of acknowledging the impact that any activity carried out by the legal entity has on the environment and to stress the need for the environmental audit at microeconomic level, as a macroeconomic basis for respecting and improving environmental policies.*

Keywords: environmental audit, environmental costs, eco-efficiency, environmental degradation, environmental impact, environmental policies, environmental risk.

JEL Classification: Q51, Q53, O10, O13

INTRODUCTION

Considering the environmental impact as a key factor of sustainable development, it has become a topic of news and public interest. Thus, the relationship between the economic activity and the surrounding environment is intended to be constantly quantified and improved, considering the current deterioration of the environment due to the inadequate exploitation of the non-renewable resources (Coman, M. D., et. all, 2019). The environmental accounting, mainly outlined in the 21st century, aims to restore the balance between man and nature, respectively economic activity and natural resources. It provides modern methods of analysis and evaluation, constantly refined and which supports reducing the impact on the environment (United Nations Department of Economic and Social Affairs, 2010).

In Romania, the European Commission launched in May 2016 a review of the implementation of environmental policies, which implies their constant monitoring over two years and aligning national legislation with current EU standards. Thus, reports were elaborated describing the opportunities for implementation, stimulating the implementation of current policies by filling key gaps in implementation. Although they are a solid support, these reports will not replace the specific instruments that ensure compliance with the legal obligations established by the European Union. The premise of sustainable development remains the balance between the environmental infrastructure and the performance of the economic entities activity, based on the implementation and observance of the specific policies of the economic activity carried out. The assessment of environmental performance

will be based on the principles of environmental management and its instruments, the evaluator's ability to understand the use of preventive, controlling and pollution reduction measures at the organizational level, as well as the legal basis of environmental protection that the legal entity is basing their activity on. (Rojanschi, Grigore, Ciomoș, 2008)

1. ENVIRONMENTAL AUDIT – ENVIRONMENTAL MANAGEMENT SYSTEMS

The environmental audit is defined by the British Industry Confederation as a systematic examination of the interdependence between economic operations and the environment, including the way in which the local community perceives the activity of the economic entity and the effects that the activity has on the neighbouring areas, emissions in soil, air and water. Regarding the content of the term environmental audit, World Centre for Environmental Enterprises defined it as a management tool. The World Centre management team run by Jaques Salamitou will also establish at that time the activities prior to the audit, the audit itself, as well as the post-audit activities. In 1996 the International Organization for Standardization (ISO) publishes a guide that standardises the principles based on which the environmental audit can be carried out. The standards refer to general principles and procedures for auditing, as well as the classification criteria of auditors.

The environmental impact assessment audit (EIA) involves comparing predictions with the actual impact, thus two objectives are outlined, one of a managerial nature, which will help make future decisions more efficient on the topic of reducing the impact on the environment, which implies the use of a responsible management strategies. The second objective is a scientific one, which will disseminate the results of the predictions and will elaborate explanations of the errors, leading to the improvement of the methods used in the future environmental impact assessments and increasing their validity. The audit activity has undergone changes over time, from a thorough verification of transactions in order to identify possible frauds, to verification through survey, with the purpose of helping the auditor form an opinion on whereas the environmental accounting statements have been drafted in accordance with the legislation in force. The audit paradigm has been modified and the role of the auditor has been redefined. The development of the audit implies, first of all proper preparation from the point of view of the resources, as well as individual recording of each stage of the process in the audit records, it implied also the completion of the research, collection and preliminary analysis of all relevant information from the opening meeting. The timing of the opening session represents also the beginning of the audit activity.

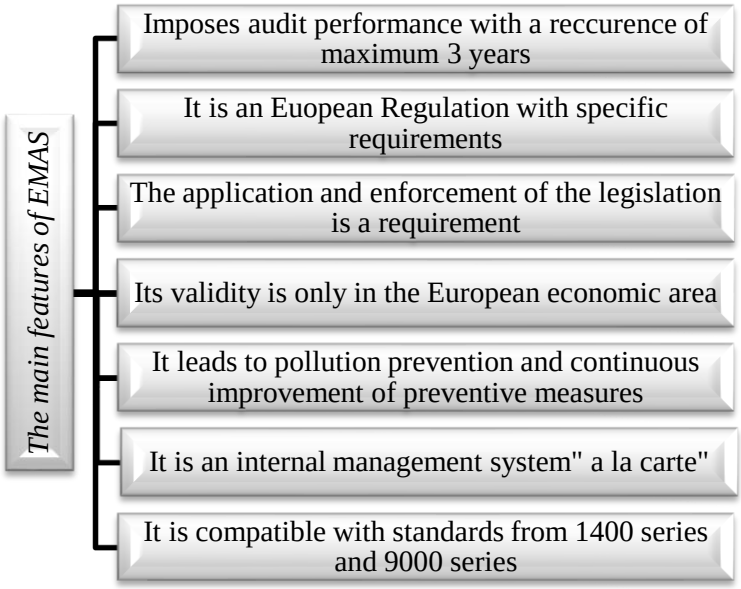
1.1. AUDIT OF ENVIRONMENTAL INFORMATION, EMAS AUDIT SYSTEMS

The procedure for auditing environmental information of a legal entity takes place following the voluntary adherence to a environmental audit community comprised of entities that undertake an activity with a potential impact on the environment, and by aligning to its criteria and requirements, in order to continuously improve the policies and measures to protect the environment. By being certified, we understand an action taken by a third party, an accredited certification body, which will establish the compliance of an economic entity with a certain reference standard, under which this procedure is carried out.

The most common system at European level is EMAS (Eco-Management and Audit Scheme), created and promoted since 1993 by adopting the Council Regulation no.1836/93 (EMAS I) which allows the adherence of all entities under industrial sector that perform economic activities inside European Union. So far, it has been improved and adapted to all economic sectors, including private or public services, and the interest of the entities has increased exponentially.

At national level, the interest for EMAS has been noticed since 2001, regulated by the order of the central environmental authority no.50 / 14.01.2004, thus marking the beginning of active involvement in the responsible analysis of the impact of economic activities on the environment. The main features of the regulations are the advantages of implementing an environmental audit system (Fig.1).

Figure 1. The main features of EMAS



(source: processing after: Decision (EU) 2285/2017)

EU Member States have the obligation to set up specialist teams, at a national level, with the responsibility of choosing auditors authorized of conducting environmental audit. All the applicant entities of the EMAS system benefit from the right to use the Eco-audit declaration, representing a symbol of notoriety and prestige of being an eco-friendly entity in the market in which they operate. In order to obtain the Eco-audit mark, the entity will prepare an in-depth preliminary analysis of the current environmental performance and the activity carried out in a delimited area (Macoveanu, Ciubotă-Roșie, 2008).

In order to prepare the environmental analysis, the economic entities must identify the environmental aspects that result from the manufacturing processes, their activities or services and establish the criteria for evaluating their importance. Gathering relevant information for environmental analysis involves: researching the sites to verify both the contribution and the results; collecting location related photos and maps; identifying applicable environmental legislation; collecting and verifying authorizations, licenses and other similar environmental documents; control of all sources of information; identifying of the persons involved; requesting information from subcontractors that can have a significant influence on the environmental performance of an economic entity; identifying activities that generate environmental risks. The assessment of an environmental aspect implies the respect of the following criteria: the potential to cause environmental damage; local, regional, global environmental fragility; size, number, frequency as well as reversibility of aspects or impact; relevant environmental legislation; the degree of importance determined by the stakeholders.

1.2. The stages required to participate in the EMAS system

In order to correctly implement within the economic entity an environmental management system, which is to be reflected in its accounting, the following steps will be taken:

1. Environmental analysis - involves the elaboration of an in-depth analysis on environmental aspects such as: consumption of raw materials, energy, water, atmospheric emissions, waste production, etc., impact on the environment and environmental performance arising from the activities performed of an economic entity (Ionescu, C.A., 2017).

2. The direct and indirect environmental aspects must be taken into account in the environmental analysis. Direct environmental aspects are aspects associated with activities, products or services of the economic entity, over which it exercises direct administrative control. Indirect

environmental aspects are aspects that can result from the interaction between the economic entity and third parties and which can be significantly influenced by an economic entity.

3. The environmental management system is an important component of the general management system, which includes the organizational structure, planning activities, responsibilities, practices, procedures, processes and resources necessary for the development, implementation, and evaluation, maintenance of environmental policy and management of environmental issues. The economic entity must implement, document, apply and maintain an environmental management system in accordance with ISO 14001 standard.

4. Environmental statement - represents the detailed information that is provided to the public as well as to interested third parties regarding the structure and activities of an organization, its environmental policy and its environmental management system, its specific environmental aspects and environmental impacts; its environmental program, as well as its environmental goals and targets; the environmental performance of the organization and compliance with the legal obligations applicable to the environment.

5. Verification and validation procedure - verification: represents the conformity assessment process carried out by an environmental verifier to demonstrate whether the environmental analysis, environmental policy, environmental management system and internal environmental audit as well its implementation meet the requirements of this regulation; validation involves confirmation by the environmental verifier who performed the verification that the information and data contained in an organization's environmental statement and updated environmental statement are reliable, credible and accurate and that they meet the requirements of the regulation.

2. TYPES OF ENVIRONMENTAL COSTS

Environmental accounting is limited by structural elements that aim to obtain two types of benefits derived from the costs for environmental protection during the activity of the entity. Environmental protection costs are defined by all investments and expenses related to the prevention, reduction or even elimination of the impact on the environment, as well as the possible costs of reconstruction of an area affected by the impact of the activity that an entity carries out, expressed in monetary value and reflected in the accounting of the economic entity. These amounts will be allocated for a fixed period, with the sole purpose of protecting the environment. The benefits resulting from these investments may be analysed based on several successive periods, recorded in the entity's expenses, during the period of their amortization.

The National Institute of Statistics (INS) of Romania defines environmental expenditure as the financial flow allocated by the economic entity with the purpose of reducing, preventing and combating the damages caused to the environment. The purpose of these expenditures by the economic entities is to develop a win-win relationship, entity-environment, considering the reduction of pollutant emissions in the ground and surface waters, the selective collection of waste and their disposal, a key factor of the sustainable development. At the same time, environmental protection offers financing options for the economic entity dependent on variables. At the same time environmental expenses are integrated parts of the general expenses of the economic entity and represent depreciable assets that serve as environmental protection as its main purpose. When these assets are purchased, they will be recorded as fixed assets for environmental conservation and classified at the investment value. Their reporting will not only be calculated for the fiscal year of acquisition, but by adding to the cost of acquisition, the cost related to their operating period. Thus, the full cost of the assets required for environmental protection will be included in the accounting table. Within economic entities, environmental costs can be classified based on different criteria, as follows: pollution prevention costs, environmental conservation costs, recycling costs, research costs, innovation in the field of environmental protection, etc. as detailed in Fig. 2. In this sense, different environmental costs reflected at the level of an economic entity can be detailed.

Cost classification for EMA according to the International Federation of Accountants:

- finished products material costs - include the replacement of raw materials or natural resources, such as water and other materials that are transformed into products, by-products and packaging;

- non-product production costs of materials - include the cost of purchasing (and sometimes processing) energy, water and other materials that become non-products (waste and emissions);

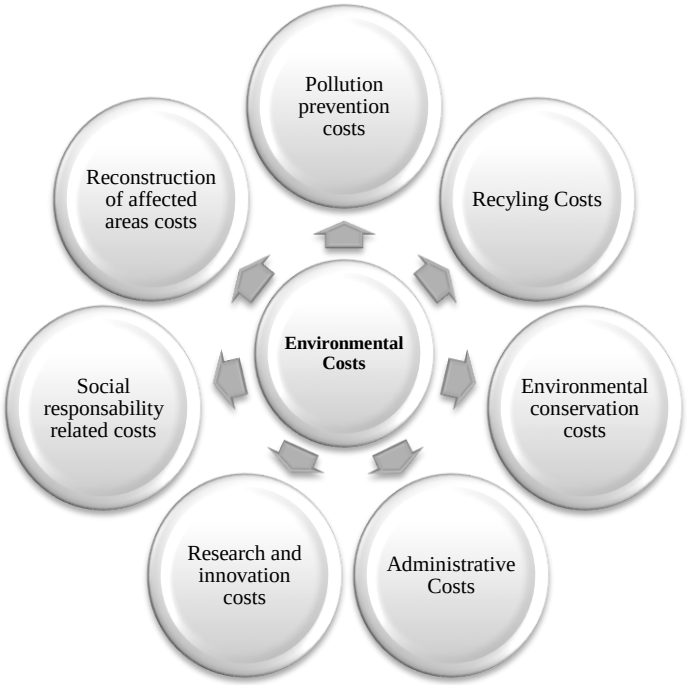
- waste and emission control costs - include costs for: handling, processing and disposal of waste and emissions, remediation and compensation costs related to environmental damage, any control costs to achieve compliance required by current regulations;

- prevention and other environmental management costs - includes the costs of the preventive activities of managing the entity-environment relationship, such as organic production projects, as well as the costs for other environmental management activities, such as planning, measuring the environment, environmental related press releases and any other relevant activities;

- research and development costs - include the costs for research and development projects related to environmental problems;

- Intangible costs - include both internal and external costs, such as: responsibility, future regulations, productivity, the image of the economic entity, its relations with stakeholders and third parties.

Figure 2. Typology of environmental costs



(Source: edited after: "Environmental Accounting Guidelines", Ministry of the Environment Japan (2005), available on-line at https://www.env.go.jp/en/policy/ssee/eag05.pdf)

The environmental costs of an economic entity represent the expenses incurred in order to decontaminate the lands, to optimize the technologies of control of waste disposal activities. These have an impact on both the managerial accounting (the assessment of the costs of an organization for pollution control equipment, the gains from recycled materials, the annual monetary savings from new energy efficient equipment) and the financial accounting (evaluation and reporting of environmental protection obligations). Environmental protection expenditures include all expenditures for environmental protection measures of an economic entity or on its behalf for the prevention, reduction, control and documentation of environmental issues, impacts and risks, as well as the costs of eliminating and

correcting them. The value of the expenses for the protection of the environment is not directly related to the ecological performance of an economic entity.

In order to evaluate the annual environmental costs, as a basis for future calculations and decisions, it is necessary to quantify the costs of the waste resulting from the production process, capital and labour. Waste, in this context, is used as a general term for solid waste, wastewater and atmospheric emissions and, therefore, encompasses all production that has not been found in products. As a rule, the environmental costs reflected in the accounting of the economic entity are those directly associated with the environment, but in this category of costs also fall those of the so-called "grey area", which are only partially ecological, bearing the name of complex costs. The calculation of these costs will be done by choosing a regulated method, the choice being taken at the discretion of the entity. For example, the differentiation of the aggregation, where the environmental cost is deducted, and the difference represents other costs or in cases where the allocation is not deductible, determining methods will be used considering the environmental activity undertaken, its characteristics and impact.

3. ENVIRONMENTAL RISK MANAGEMENT

The environmental risk management aims to determine the degree of risk specific to the activity undertaken by an economic entity in relation to the environment. This is done in order to determine later how to manage this risk in the most appropriate way in order to protect human health and the environment, but especially to resort to the conservation of non-renewable resources. The environmental pollution factors are represented by the sources of risk which are different, depending on the activity of the economic entity, but similarly defined depending on the level of toxicity and the danger it generates. The classification of these sources cannot be made in relation to the quantity of the substance, but only according to the degree of pollution. For example, we may have to deal with a small amount of substance that has a high level of toxicity or a larger amount of substance with a low level of toxicity, which can equally affect the environment.

In order to adopt and implement the risk management, the economic entity will use control mechanisms, which will act based on the previous consequences and expected outcomes of the risk sources. Such mechanisms will target the production unit, the storage and retail spaces, all departments of the economic entity depending on the degree of risk they present. In order to act responsibly, it is essential to know the types of risk factors. The first factor is the ecological risk caused by the dangerous substances that will pollute a large area in a very short time. For example, oil extraction has a negative influence on the fauna and flora in the extraction area through chemical pollution of the soil, which will cause its long-term infertility. Another factor is the vulnerability of the receiver to environmental disasters, and this risk factor will increase exponentially when there are more receptors (for example, the emission of industrial pollutants within a metropolis). The development of the risk management process is recurrent, as it can be continuously improved by modifying the analysed criteria or introducing additional risk assessments.

CONCLUSIONS

According to the presented data, we consider environmental audit as being the accounting and managerial instrument through which the environmental aspects will be evaluated, with the purpose of certifying the information provided. In order to implement the environmental protection measures responsibly and to highlight the environmental costs in the accounting of an economic entity, the first step is the audit. The audit results will influence the activity of each department of the economic entity, providing key information in order to implement the proposed measures.

Analysing the current trend of the economic market, the possibility of quantifying the environmental protection costs according to the activity carried out, represents an added value for the economic entity, not only from a financial point of view, but also of its position on the competitive market. At the same time, environmental protection measures will bring four categories of benefits for the entity, based on the activity-environment relationship. Regardless of the activity category, the entity's assessment will be made based on performance indicators. Thus, the benefit corresponding to the conservation of the

environment will be applied based on the area of activity, implicitly the responsible allocation of resources destined to environmental protection both for the current activity, as well as for research, development, social activities, reconstruction of the areas affected by a possible impact, all aiming the consolidation of undertaken activity-environment relation, by reducing the impact on the environment.

The benefits of environmental protection will be measured within the entity based on: the volume of energy consumed, the change in the quantity of recycled products and packaging, respectively reused during the manufacturing process, the reduction of contaminated areas in the location of activities being carried out in soil, water, air and volume of non-renewable raw materials used. Providing to the accounting department with the results of the information from the environmental audit information of the economic entity will be translated in the complete reflection of the quality improvement and the efficiency of the activity undertaken. Also, the alignment with the current standards imposed by the European community will add value to the decision support information for the entity's management.

REFERENCES

[1] Adams J. (2007) Globalisation, Trade and the Environment in Globalisation and the Environment, Paris: OECD

[2] Coman, M.-D., Ionescu, C. A., & Lixandru (Leasa), M. (2019). Romanian Economy between Linearity and Circularity. A Bioeconomic Perspective. In C. Ignătescu (ed.), 11th LUMEN International Scientific Conference Communicative Action & Transdisciplinarity in the Ethical Society | CATES 2018 | 23-24 November 2018 | Targoviste, Romania (pp. 59-72). Iasi, Romania: LUMEN Proceedings. https://doi.org/10.18662/lumproc.99

[3] European Commission, Directorate-General for Environment (2007) "EMAS „easy" for small and medium enterprises", available on-line at https://publications.europa.eu/en/publication-detail/-/publication/a46da1ae-edee-47aa-b871-d13baa946379

[4] Ionescu, C.A. (2017) "Integrating the Environmental Accounting on the Information System of the Economic Entities, *Hyperion Economic Journal*, Year V, issue 2, p. 44-46

[5] Kermenu, V.,(2017) „Decision no. 2285/2017 amending the user guide setting out the steps required to participate in EMAS, pursuant to Regulation (EC) no. 1221/2009 of the European Parliament and of the Council on the voluntary participation of organizations in a Community system of environmental management and audit (EMAS), *The Official Journal of the European Union.*

[6] Macoveanu, M., Ciubotă-Roșie, C. (2008), *Environmental Audit, 03rd Edition,* Iași, Ecozone Publishing House

[7] Ministry of the Environment Japan (2005) *"Environmental Accounting Guidelines",* available on-line at https://www.env.go.jp/en/policy/ssee/eag05.pdf

[8] Negrei, C. (1999), Tools and methods in environmental management, Bucharest, Economics Publishing House

[9] Rojanschi, V., Grigore, F., Ciomoș, V. (2008) *Guide of the environmental assessor and auditor,* Bucharest, Economic Publishing House

[10] United Nations Department of Economic and Social Affairs (UN-DESA), United Nations Environment Programme, and United Nations Conference on Trade and Development (2010), The Transition to a Green Economy: Benefits, Challenges and Risks from a Sustainable Development Perspective, Report by a Panel of Experts to Second Preparatory Committee Meeting for United Nations Conference on Sustainable Development. available from: http://wedocs.unep.org/bitstream/handle/20.500.11822/9310/-Transition%20to%20a%20green%20economy%3a%20benefits%2c%20challenges%20and%20risks%20from%20a%20sustainable%20development%20perspective-2012UN-DESA%2c%20UNCTAD%20Transition%20GE.pdf?sequence=3&isAllowed=y

GREEN ACCOUNTING FOR THE DEVELOPMENT AND MANAGEMENT OF SUSTAINABLE BUSINESSES IN MULTINATIONAL COMPANIES

Cornelia Maria Nitu, Ph.D Student
IOSUD-SDSE Valahia University of Targoviste, Romania, cornelia.nitu@aconaudit.ro

Alin Sergiu Nitu, Ph.D Student
IOSUD-SDSE Valahia University of Targoviste, Romania, aconrental@yahoo.com

Mihai Andrei Mirica, Ph.D Student
IOSUD-SDSE Valahia University of Targoviste, Romania, andrei_mirica@yahoo.com

ABSTRACT: *In the current context of globalization, there is an interdependent relationship between performance, expressed in value, and social responsibility as a factor of sustainable development. New questions have arisen for the accounting, namely how the environmental and social problems can be quantified and reflected by accounting. The multinationals were also forced to comply with the regulatory requirements regarding environmental issues, which required profound accounting changes. The paper presents in summary the defining characteristics of multinational accounting, and especially green accounting.*

Keywords: *green accounting, sustainable development, environment, multinational companies, performance.*

JEL cod: Q56

INTRODUCTION

As a consequence of increasing environmental concerns at the international level, the multinationals companies (MNC) were forced to comply with the regulatory environmental requirements, which required profound accounting changes (Kareiva, McNally, McCormick, Miller and Ruckelshaus, 2015). Questions such us how the environmental and social problems can be quantified and reflected by accounting required the emergence of new accounting, the non-financial one, which combines the economy, the environment, and the society, having as objective the quantification of the patrimonial operations that are related to them, their recording and reporting (Deegan, 2017). Thus, it has appeared the environmental accounting (green accounting), and the accounting of human resources, generically united under the title of social accounting.

At first glance, it can be assumed that multinationals have voluntarily chosen the path of sustainable development, but in reality, in its adoption they have been forced by: environmental changes, depletion of resources, lately even by limited human resources, poverty, the problem waste, etc. Thus, the need to reflect in accounting and implicitly in the financial reports of the three essential pillars of sustainable development appeared: economic, social and environmental (Ionescu, Coman, Paschia, Gudanescu Nicolau, and Stanescu, 2020; Purvis, Mao, & Robinson, 2019). If the performance in terms of financial accounting is measured by the profit resulting as the difference between revenues and expenses, in non-financial accounting, the performance has the social and environmental benefits that will be distributed to the stakeholders of the multinationals: shareholders, employees, institutions, authorities, citizens (Fontaine, 2013).

Regarding the formalization and regulation of this aspect, at the global level, initiatives have been expressed by GRI, OECD, ONU, and at European Union level by Directive 2014/95/EU, initiatives that have materialized in attitudes, conferences, regulations, draft proposals, etc (DIRECTIVE 2014/95/EU; Global Reporting Initiative, 2015). The establishment of relevant indicators regarding the natural environment was also the object of GRI which recommended the following 3 categories of indicators to be included in the financial statements: expenditure on material resources, water, energy; the impact of the activity on nature: emissions that affect the environment, waste, etc; measures that are taken to mitigate this impact (Cernusca, 2008; Ionescu, 2017; Wilburn & Wilburn, 2013). According to social accounting, the "green" indicators in the financial statements must present the performance of the companies' vis-à-vis the natural environment, facilitate the forecast calculation of the financial performances and allow the best decisions by multinationals regarding the protection of this environment (Jones, 2010).

According to research conducted based on published information, it turned out that social responsibility is a feature of multinationals operating in Romania, which are the most performing in this respect, they are developing CSR reports that meet international standards, from which Global Reporting Initiatives is the most used. The historical evolution of the multinationals reveals that they represent a group of companies, with their existence and diverse, specific links, but common interests that require a concentration of individual information at a level that ensures the real performance desired by the internal users (shareholders/associates, management, employees, etc.) and/or external (clients, suppliers, creditors, institutions, etc.), information that is offered by accounting in all its forms of manifestation.

1. THE ACCOUNTING OF MULTINATIONAL COMPANIES

Classically, the financial accounting information is monetary expressions of the patrimonial elements and the economic operations, non-homogeneous, which reflect their movement, and ensures their reunification as a homogeneous whole (Abdallah, 2001). The classic accounting for multinational companies comprises the two important branches: management accounting and financial accounting.

Management accounting generally has the following characteristics: does not have a mandatory character and a regulated fixed standard, is the subject of the specialized literature that offers various methodologies, the managers choosing discretely the presentation format, ad-hoc, which differs from one company to another, as it regulates the information in the management accounting reports; it is addressed to the internal users of the subsidiaries (managers, directors, employees), of which the managers are most interested in the information because as aid they base their act of management on the flow of management, planning, decision, control, being called the managerial accounting alternatively; the managers of the other subsidiaries in multinationals have an only partial interest and insofar as they are transacted between them, for and depending on the method of determining the transfer price; the managers at the rule group level do not have an exclusive and excessive concern, taking into account the internal kitchen of each branch; as the scope of action, the objective at the branch level is much narrower than the financial accounting because it is focused on certain activities, on departments, sections, cost centers, depending on the interest given to each one, for this reason alternatively called cost accounting; as a subject period, it has a broader horizon on the axis of time, past, present future, more planning; the accounts used are off-balance sheet, not known by external users, the information being quantitative-value.

Financial accounting generally has the following characteristics: has a mandatory character and regulated standards that will be specified below. And it is the subject of the specialized literature but within limits and according to the legal requirements, the managers using the legal format of registration, presentation, and reporting, which is the same for all companies that apply the same standards; it is addressed to the external users of the subsidiaries (shareholders, authorities, creditors, customers, etc.), of which the first interested in the information are the shareholders of the subsidiaries and the group; it is a transparent and public accounting, reflecting the position and financial performance of the subsidiary and the group at certain times and for a certain period; the managers of the other subsidiaries in multinationals know and have an interest in terms of group performance; the managers at the group level have an interest in the financial accounting information that must reflect as accurately as possible the

individual performances of the subsidiaries and centralized at the group level; the scope of financial accounting is at the branch and group level; as a period the financial accounting is assigned to the reporting year which may be the chronological year or another 12 months; the accounts used are balance sheets, reflected and reported in annual financial statements that are published and are known by all internal and external users. The information is valuable, in monetary terms.

The parent company and the component subsidiaries of the multinational group, operating independently, as independent structures, with their own legal personality, organize and maintain their accounting and prepare reports and financial statements according to the practices of the regulated national jurisdiction.. In some cases, the individual performance reflected by the own accounting of each company in the group reflects the overall performance of the group. As a result, the assets, the results, the financial position of each one must be concluded, gathered according to clear, transparent and uniform principles and rules, an objective that can only be achieved with the help of consolidated accounting, specific to the multinationals whose final product is the consolidated financial statements. The consolidated accounting is kept for reporting purposes at the level of companies that have sole control, joint control, or significant influence over the component companies.

2. NON-FINANCIAL ACCOUNTING OF MULTINATIONAL COMPANIES

According to the ones described above, classically, financial accounting information is monetary expressions of patrimonial elements and non-homogeneous economic transactions, which reflect their movement and ensure their reunification as a homogeneous whole. The present of multinational companies is dominated by the concept of sustainable development represents the whole of the forms and methods of socio-economic development that focus primarily on ensuring a balance between the social, economic and ecological aspects and the elements of natural capital, and expresses, the global performance of human society (Caraiani, Lungu, Dascalu and Colceag, 2015; Hopwood, 2005). In this current context, there is an interdependent relationship between performance, expressed value, and social responsibility as a factor of sustainable development (Schaltegger & Burritt, 2017).

New questions have arisen in front of the accounting, how can the accounting officer quantify and reflect the following elements: environmental problems, managers' competence, the competence of the employees, social climate, creativity, and the relationship with the authorities. These new questions required the emergence of new accounting, the non-financial one, which combines the economy, the environment, and the people, having as objective the quantification of the patrimonial operations related to them, their recording and reporting. As a consequence and a necessity, the multinationals were forced to comply with the regulatory requirements of the developed countries, which required profound accounting changes. Thus, has appeared environmental accounting (green) and human resources accounting, generically united under the title of social accounting (Gray & Laughlin, 2012). Green accounting has emerged as an objective necessity of monetizing and quantifying the value of natural capital, and to highlight first the expenditure on environmental protection and secondly the sources of formation of environmental costs, which may lead to the change of the behavior of the energy consumers affecting the environment.

The accounting system is also related to the price system regarding natural resources. Their non-correlation can lead to self-destructive decisions. It is known that the goal of any multinational is to make a profit, with financial performance being compared to non-financial performance (Joshi & Li, 2016). It's precisely why the interest of multinationals differs from the regional and global interest, with the two actors involved, the state and the multinationals having to reach a consensus.

From an accounting point of view, a value division must be made between the natural environment, the economic environment, and the social environment, which coexist and influence each other. The use of natural assets by the multinationals in their economic activity has a quantitative side regarding their consumption in time, sometimes until exhaustion and a qualitative side regarding the degradation of the environment (Egbunike, Emudainohwo, Gunardi, Kurniasari, and Prihanto, 2018; Jouanjean, Tucker, & te Velde, 2014). As a result, the need to consider natural assets from an accounting point of view as capital goods and the natural resources in the category of stocks emerged. Because in the development and management of the sustainable business, a problem of the present-day concerns the energy sources,

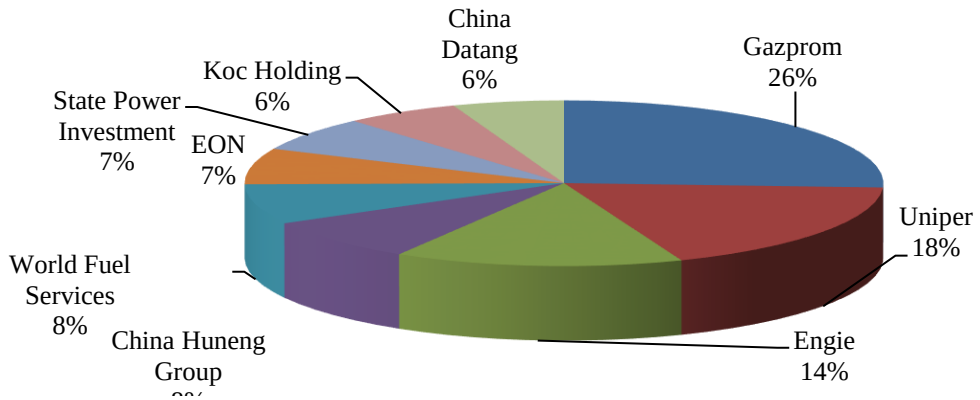
we have made an empirical query of the information published by Forbes magazine (2019) in the top 500, choosing the activity fields that have an environmental impact as a selection criterion. Using the activity filter "energy", in the top 500, we identified only nine companies with income and profit indicators expressed in millions of USD and indicator number of employees that also involves the social aspect (Table 1).

Table 1. Top multinational energy companies

Company	Country	Revenues ($M)	Profit/Loss ($M)	Assets ($M)	Employees
Gazprom	Russia	131,302.0	23,199.1	300,354.8	466,100
Uniper	Germany	92,260.8	-533.4	57,841.5	11,828
Engie	France	74,144.1	1,219.1	175,681.4	160,301
China Huneng Group	China	42,280.9	8.9	156,327.2	136,031
World Fuel Services	US	39,750.3	127.7	5,676.9	5,000
EON	Germany	35,703.6	3,803.7	62,092.3	43,302
State Power Investment	China	34,229.2	170.7	157,347.6	124,678
Koc Holding	Turkey	29,592.3	1,143.8	23,570.7	92,631
China Datang	China	28,654.9	323.4	108,633.2	93,800

(Source: Forbes magazine, 2019)

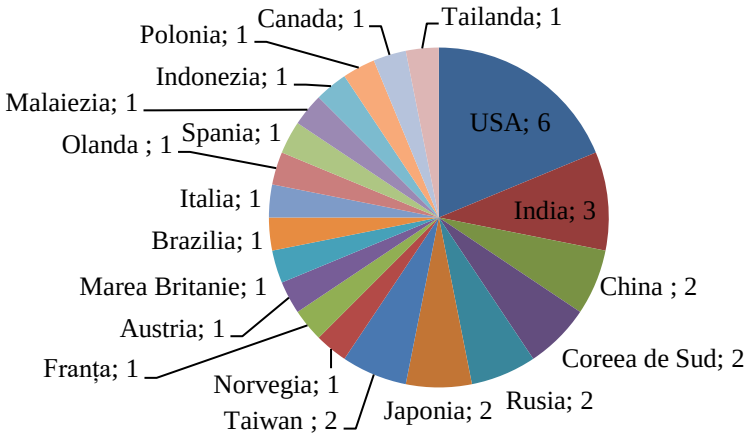
Figure 1. Top multinational energy companies



(Source: own projection)

At first glance, one can conclude that multinationals have voluntarily chosen the path of sustainable development, given that the results are not extraordinary. It would be a nice dream, but they were forced by reality, which, in the not too long term perspective, offers a gloomy horizon: environmental changes, depletion of resources, lately even human resource is declining, poverty, the problem of waste, etc. Another area related to environmental resources is that of oil refining, wherefrom the same query from Forbes magazine, it turned out that in the Top 500, there are 32 multinational companies, out of which six are from the USA.

Figure 2. Top multinational oil refining companies



(Source: own projection)

Interesting is that in the top 10 companies in the top 500 there are five companies with oil refining activity, of which the largest with this object of activity is Sinopec Group from China which is also 2nd in the top 500, followed by Royal Dutch Shell (3rd place in the top 500), China National Petroleum (4th place in the top 500), BP of France (7th in the top 500) and Exxon Mobile (8th in the top 500). The Austrian group OMV also present in Romania is the 31st company with oil refining and the place 459 top 500 with a turnover of 27.061.30 million USD and 20,231 employees. An interesting statistic regarding the human resource used, regarding the social accounting, is the number of employees reported to total income for the first ten companies in this field (Table. 2), whereby far the Chinese companies have an impressive number, which reflects on the one hand, the human-economic relationship and the natural resource, and on the other hand, the excess of personnel of the Chinese companies compared to the other companies. The two Chinese reference companies have 2,001,552 USD higher than the total of the other eight companies in the top oil refinery, which have five times less, respectively, 505,021 employees.

Table no. 2. Top multinational oil refining companies

Company	Country	Revenues ($M)	Profit/Loss ($M)	Assets ($M)	Employees
Sinopec Group	China	414,649.9	5,845.0	329,186.3	619,151
Royal Dutch Shell	Netherlands	396,556.0	23,352.0	399,194.0	81,000
China Natinal Petroleum	China	392,976.6	2,270.5	601,899.9	1,382,401
BP	UK	303,738.0	9,383.0	282,176.0	73,000
Exxn Mobil	US	290,212.0	20,840.0	346,196.0	71,000
Total	France	184,106.0	11,446.0	256,762.0	104,460
Chevron	US	166,339.0	14,824.0	253,863.0	48,600
Lukoil	Russia	119,145.0	9,863.7	82,734.80	102,500
Philips 66	US	114,217.0	5,595.0	54,302.00	14,200
Valero Energy	US	111,407.0	3,122.0	50,155.00	10,261

(Source: Forbes magazine, 2019)

Accounting must provide information for achieving environmental sustainability, reflecting the limits of the expansion of economic activities over those of natural capital through: expressing the natural environment in quantitative terms; monetary expression of flows and stocks related to the environment; measuring and recording the impact of the economic activity of the multinationals on the environment; the quantification of the value of the expenditures from the environment to the economy and vice versa of the residuals, the waste from the economy to the environment. As a result, in the face of accounting and implicitly of financial reporting, the need to reflect as best as possible the three aspects of sustainable development: economic, social, and environmental.

If the performance in terms of financial accounting is measured by the profit resulting as a difference between revenues and expenses, in non-financial accounting, the performance has the social and environmental benefits that will be distributed to the stakeholders of the multinationals: shareholders, employees, institutions, authorities, citizens (Fontaine, 2013; Maama & Appiah, 2019). Regarding the formalization and regulation of this aspect, at the global level, initiatives have been expressed by GRI, OECD, UN, and at European Union level by Directive 2014/95/ EU, initiatives that have materialized in attitudes, conferences, regulations, draft proposals, etc. In April 2002, the European Parliament issued a report with concrete proposals on social accounting (UNCTAD, 2004): supplementing the IV Directive with the obligation of companies to submit periodic, social and ecological reports; the obligation to publish these reports by the companies listed on the stock exchanges; audit of reports; extending these obligations to all companies. In 2004, the UN (UNCTAD, 2004), accessed this position and elaborated, with the help of the specialists in the field, a conceptual framework and established the main methods of evaluation and accounting regarding the consequences resulting from the activities of the companies on nature, following: the congruence of the accounting information with the ecological one; clear communication indicators regarding the information related to the natural environment: classics (water, energy, etc.) and current ones (greenhouse effect, waste, etc.). The declared information is related to several reporting frameworks presented in the preamble of the directive, national (Romania does not have), Union (EMAS) or international (UNGC, OECD Instructions for multinational companies, etc.), in the light of the principles regarding multinational companies and the topics of this Directives are large companies and groups of companies, which are mostly multinationals (DIRECTIVE 2014/95/EU).

By the Directive 2014/95/EU, the legislation of the Union has been regulated as the obligation of certain entities to carry out non-financial reporting referring to environmental, social, and personnel issues, with the related risks and the non-financial performance reflected in a set minimum of indicators. The establishment of relevant indicators regarding the natural environment was also the object of GRI which recommended the following three categories of indicators to be included in the financial statements (Man & Gădău, 2009; Wilburn & Wilburn, 2013): expenditure on material resources, water, energy; the impact of the activity on the nature: emissions that affect the environment, waste, etc.; measures taken to mitigate this impact.

The declared information is related to several reporting frameworks presented in the preamble of the directive, national (Romania does not have), Union (EMAS) or international (UNGC, OECD Instructions for multinational companies, etc.), in the light of the principles regarding multinational companies and the topics of this Directives are large companies and groups of companies, which are mostly multinationals

CONCLUSIONS

According to social accounting, the "green" indicators in the financial statements must present the performance of the companies' vis-à-vis the natural environment, facilitate the forecast calculation of the financial performances and allow the best decisions by the multinationals regarding the protection of this environment. According to the research conducted we consider that social responsibility is a feature of the multinationals operating in Romania, which are the most performing in this respect, they elaborate CSR reports that meet international standards, of which Global Reporting Initiatives are the most used.

REFERENCES

[1] Abdallah W. M. (2001). "Managing multinationals in the Middle East: Accounting and tax issues". Greenwood Publishing Group.

[2] Caraiani C. Lungu C. I., Dascalu C. and Colceag F. (2015), "Green accounting initiatives and strategies for sustainable development". (Eds.). Business Science Reference.

[3] Cernusca L. (2008). "Green accounting–A step towards improving the environment", Research Journal of Agricultural Science, vol. 40, issue 1 pp. 547-550.

[4] Deegan C. (2017). "Twenty five years of social and environmental accounting research within Critical Perspectives of Accounting: Hits, misses and ways forward", Critical Perspectives on Accounting, vol. 43, pp. 65-87.

[5] DIRECTIVE 2014/95/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 22 October 2014 amending Directive 2013/34/EU as regards the presentation of non-financial information and information on diversity by certain companies and large groups, https://eur-lex.europa.eu/legal-content/RO/TXT/PDF/?uri=CELEX:32014L0095&from=FR, Accesed on October 2019.

[6] Egbunike F.C., Emudainohwo O.B., Gunardi A., Kurniasari F., and Prihanto J. (2018). "Sustainability Accounting Practices and Disclosure by Multinational Corporations in Nigeria", Journal of Applied Economic Sciences, vol. 13, issue 3.

[7] Fontaine M. (2013). "Corporate social responsibility and sustainability: the new bottom line?", International Journal of Business and Social Science, vol. 4, issue 4.

[8] Fortune (2019), Data base, https://fortune.com/global500/2019/search/ Accessed on November 2019

[9] Global Reporting Initiative. (2015). Sustainability reporting in the European Union.

[10] Gray R., and Laughlin R. (2012). "It was 20 years ago today: Sgt Pepper, accounting, auditing & accountability journal", green accounting and the blue meanies, Accounting, Auditing & Accountability Journal, vol. 25, issue 2 pp. 228-255.

[11] Ionescu C.A., Coman M. D., Paschia L., Gudanescu Nicolau N. L. , and Stanescu, S. G. (2020). "Sustainable Economic Intelligence: A New Dimension of Information Provided by Non-Financial Indicators", In Improving Business Performance Through Innovation in the Digital Economy (pp. 117-143). IGI Global.

[12] Ionescu C.A. (2017). "Integrating the Environmental Accounting on the Information System of the Economic Entities", Hyperion Economic Journal, vol. 5, issue 2 pp. 42-48.

[13] Jones M. J. (2010). "Accounting for the environment: Towards a theoretical perspective for environmental accounting and reporting", *Accounting Forum, v*ol. 34, issue 2 pp. 123-138. Taylor & Francis.

[14] Joshi S. and Li Y. (2016). "What is corporate sustainability and how do firms practice it? A management accounting research perspective", Journal of Management Accounting Research, vol. 28, issue 2 pp. 1-11.

[15] Jouanjean M. A., Tucker J., and te Velde D. W. (2014). "Understanding the effects of resource degradation on socio-economic outcomes in developing countries", Overseas Development Institute, London, UK.

[16] Kareiva P. M., McNally B. W., McCormick S., Miller, T., & Ruckelshaus, M. (2015). "Improving global environmental management with standard corporate reporting", Proceedings of the National Academy of Sciences, vol. 112, issue 24 pp. 7375-7382.

[17] Hopwood B., Mellor M., and O'Brien G. (2005). "Sustainable development: mapping different approaches", Sustainable development, vol. 13, issue 1pp. 38-52.

[18] Maama H. and Appiah K.O. (2019). "Green accounting practices: lesson from an emerging economy", Qualitative Research in Financial Markets, vol. 11, issue 4 pp. 456-478.

[19] Man M. and Gădău L. (2009). "Green accounting–a new dimension in the performance and activity reporting of the enterprise". Annals of Spiru Haret University, Economic series, vol. 2(11), issue 2 pp. 149-157.

[20] Purvis B., Mao Y., and Robinson D. (2019). "Three pillars of sustainability: in search of conceptual origins", Sustainability science, vol. 14, issue 3 pp. 681-695.

[21] Schaltegger, S. and Burritt, R. (2017). "Contemporary environmental accounting: issues, concepts and practice", Routledge.

[22] UNCTAD (2004). "A manual for the preparers and users of eco-efficiency indicators", New York.

[23] Wilburn, K., & Wilburn, R. (2013). Using global reporting initiative indicators for CSR programs. *Journal of Global responsibility*.

ASSESSMENT OF PERFORMANCE IN THE BAKERY INDUSTRY — MANAGEMENT SYSTEMS AND ASSESSMENT INDICATORS

Andrei – Mihai CRISTEA
"Hyperion" University of Bucharest
cristeaandm@yahoo.com

Abstract: *Cost calculation methods have a rapid and complex evolution, based on new and new theoretical and practical research. It is obvious that in this context we are the question of identifying the optimal method that can be implemented in the entities of the bakery industry in order to optimize performance, costs and value.*

Keyword: performance, rentability, backery, cost calculation, accounting management

JEL Classicication: M41, M48

In the most general sense, the concept of performance focuses around three main aspects: the economy, environmental protection and social issues.

Economic performance involves access to capital and the integration of funds in compliance with ethical principles.

Environmental performance aims to reduce industrial pollution, the security of production equipment and installations, product safety so as not to adversely affect health, avoid irreparable resource exhaustion. However, all this involves reducing direct costs, legal risks and accidents, opportunities for the creation of new products and image benefits.

Social performance refers to respect for human rights, equal treatment at work and ensuring optimal working conditions.

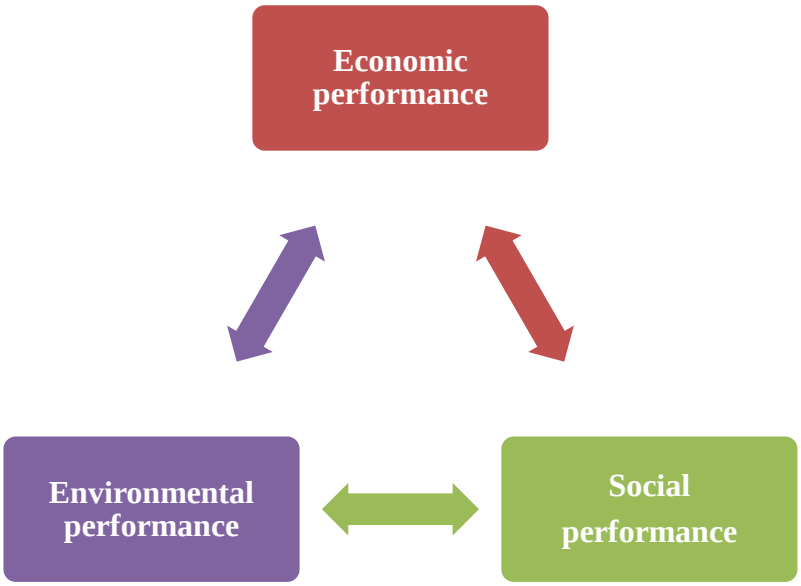


Figure 1. Performance dimensions

Source: adaptation after Reynaud E. (2003), *Développement durable et entreprise: vers une relation symbiotique*, Communication à la Journée AIMS, ESSCA, Angers, May 2003

It is certain, however, that performance is the expression of the optimal results achieved and depends on how the entity's resources are used, the effectiveness of the processes, the organizational management, the culture of the entity and the expectations of stakeholders.

From a purely economic perspective, performance incorporates the concepts of productivity, profitability, efficiency and effectiveness, which it positions in an inclusive relationship, as shown in Figure 2.

Figure 2. The inclusive relationship created by performance

Source: adaptation after Tangen S. (2005), Demystifying productivity and performance, International Journal of Productivity and Perfromance Management, vol.54, no.1, p.43

Quantifying the performance of entities involves both assessing different ways of achieving overall performance and measuring directly carried out on the basis of a performance system, which usually uses established financial indicators (profit, return, funding rates, etc.). However, situations arise when the indicators mentioned are moved forward by the need for permanent and continuous management of planning and control activities, which aspire to a certain level of performance. In this context, new performance assessment systems have emerged, which by improving decision-making, strategic planning and communication have certainly proven their effectiveness[1].

The cost-volume production – profit relationship in the bakery industry and beyond is subject to performance analysis. It is based on a number of assumptions, of which are of vital importance are the following[2]:

- total costs consist of fixed costs, independent of the volume of production and variable costs;
- the evolution of total revenues and costs follows a linear trend relative to the volume of production, evolving between certain;
- the exact selling price, variable cost/product and fixed costs are known;
- the approach usually targets a single product several products whose overall weights remain constant;
- changes in revenue and costs are recorded only as a result of the change in sales.

[1] Harvey J. (2008), Performance measurement, CIMA
[2] Walther L. M. (2017), Managerial Accounting 2016-2017 Edition, p.27-38

Gross margin or variable cost margin shall be calculated as the difference between turnover and total variable expenditure recorded for the manufacture of a product. The profitability threshold is equivalent to the sales volume for which turnover equals total operating expenses[3].

For entities that have homogeneous production, the break-even point is based on the assumption that there is a variable cost/product that does not change immediately and at the same time as the volume of production develops. In other words, irrespective of the change in production volume, variable expenditure/product will remain at a constant level, varying only the volume.Moreover, the selling price is considered to be constant. In this context, the break-even point (q_r) is calculated the relationship:

$$q_r = \frac{Fe}{p - V} = \frac{Fe}{mVc} \quad (1.)$$

where:

Cf – fixed expenses;

Cv – variable expenses;

p – product selling price;

V – variable costs in relation to production volume, constant per unit of product;

mVc – unit margin on variable costs.

As a result, it means that the break-even level is higher (and more difficult to target) as fixed expenditure is higher.

For the current year, a bakery in the bakery sector included in the forecast situations and the following indicators relative to the targeted production, indicators presented in the table 1.

Table 1.

Products manufactured and sold – forecast situation 2020

Explanations	Bread 500g	Bread 800 g	Bread 1 kg	Sticks 200 g	Total
Forecast quantity (tons)	1260	240	300	270	2070
Selling price/unit. (lei)	2,10	3,40	4,20	1,30	-
Selling price/ton (lei)	4187,4	4237,25	4187,4	6480,5	-
Fiscal value (lei)	5276124	1016940	1256220	1749735	9299019
Variable cost (lei)	2901868,2	630502,8	665796,6	559915,2	4758082,8
Gross margin (lei)	2374255,8	386437,2	590423,4	1189819,8	4540936,2
Fixed expenses (lei)	-	-	-	-	2138774,37

Source: own processes

In these circumstances, what is the break-even point of the bakery under consideration? The following table summarizes the primary decision-making indicators needed to determine it.

[3] Hilton R.W., Platt D.E. (2018), Managerial Accounting: Creating Value in a Dynamic Business Environment, 10th Edition, p. 51-53

Table 2.

Costs of products produced and sold – forecast situation 2020

Explanations	Bread 500g	Bread 800 g	Bread 1 kg	Sticks 200 g	Total
Variable cost (lei/ton)	2303,07	2627,1	2219,32	2073,76	-
Unit coverage (lei/ton)	1884,33	1610,15	1968,08	4406,74	-
Global coverage (lei)	2374255,8	386437,2	590423,4	1189819,8	4540936,2

Source: own processes

According to the data in Table 2, all the bakery products analyzed make a positive contribution to the profit, i.e. to the coverage of fixed costs, by making a significant contribution to covering them.

From these data, the break-even point can be determined, i.e.:

$$\Pr = \frac{Cf}{\overline{Ca}} \qquad (2.)$$

where:

$\overline{Ca}$ - the average coverage contribution, calculated as:

$$\overline{Ca} = \frac{Ca}{\sum_{i=1}^{4} Qi} = \frac{4540936,2}{2070} = 2193,69 \text{ lei/ton} \qquad (3.)$$

The calculated break-even point is:

$$\Pr = \frac{Chf}{\overline{Ca}} = \frac{2138774,37}{2193,69} = 974,97 \text{ tons} \qquad (4.)$$

Assuming that the production structure will be maintained in the future, the structure of the break-even point per product can be determined (Table 3.)

Table 3.

Break-even structure per product at baker's shop

Product	Weight	Structure of the ptofitability threshold on products (tons)
Bread 500g	60,87	593,46
Bread 800 g	11,59	113
Bread 1 kg	14,49	141,27
Sticks 200 g	13,05	127,24
TOTAL	**100%**	**974,97**

Source: own processes

In Table 4, other indicators of interest were calculated for determining the economic and financial performance of the bakery.

Table 4.

Indicators to assess the bakery performance

Indicator	Calculation method	The value recorded by the bakery
The minimum turnover to achieve the break-even point	$CA_{cr} = \frac{Cf}{Rc}$ $Rc = \frac{Ca}{CA}100$	$Rc = \frac{4540936,2}{9299019}100 = 48,83\%$ $CA_{cr} = \frac{213877437}{0,4883} = 438004172$ lei
Critical period or break-even point over time	$T_{cr} = \frac{CA_{cr}}{CA/T}$	$T_{cr} = \frac{438004172}{9299019/12} = 5,65$ months
Critical production to maximize profit	$\Pr_p = \frac{Cf + Pb_{\min}}{\overline{Ca}}$ or in monetary units $\Pr_p = \frac{Chf + Pb_{\min}}{Rc}$	$\Pr_p = \frac{Cf + Pb_{\min}}{\overline{Ca}} = 1385,23$ tons respectively $\Pr_p = \frac{Chf + Pb_{\min}}{Rc} = 6223171$ lei

Source: own processes

In the case of entities that are at market entry and those that have been re-technological, the fixed costs are high, which is mainly due to the depreciation that is being recorded.

If the share of variable operating costs is high, the economic risk is reduced because, upon a conjunctural decrease in turnover, it will cover lower fixed operating costs.

Profit maximisation can be ensured in the context of successful increase in contribution/coverage and reduction of fixed expenses. Decision makers must take into account that under certain conditions excessive reductions in fixed costs may hinder the normal operation of the entity. The break-even point can also be achieved only if the production of the critical point is below the entity's production capacity. Determining the period after which the critical point is reached influences the economic risk, which is the lower the faster the break-even point is reached. A change in market trend can lead to considerable losses.

Fixed expenses incurred are still incurred from the beginning of the entity's operation. Over time, the sales value changes positively and the hedging contribution will be able to bear all fixed costs. When the contribution of cover reaches the level of fixed expenses, the point of equilibrium is also reached over time.

The bakery makes a profit as early as June 2019 (according to calculations after 5.65 months of the current year). It means that since July the coverage contribution recorded by the entity represents entirely profit..

Certainly, when revenue equates the level of expenditure, the break-even point is reached. However, this is not the main goal for entities because investors usually seek to obtain a return on capital invested above the bank interest rate.

A break-even level and dynamic analysis is useful to the entity at the following times: at the launch of a new product (for the relevant assessment of turnover, production capacity and market absorption capacity), expansion of activity (because it involves additional costs) and upgrading (when fixed costs increase on the basis of depreciation). An analysis of the critical point also offers the possibility of profit anticipation and pricing in concrete context of volume of activity.

The critical point is part of the performance indicators. A reduction of its allows an increase in the entity's ability to gain economic gains. It also allows an assessment of economic risk by

warning decision-makers of the level of profit-loss sharing so that they can intervene to correct, prevent and/or limit the effects of actions that negatively affect the entity's economic-financial outcome.

Preliminary conclusions

In order to meet today's requirements, management accounts have undergone profound changes and have been constantly renewed by proposing innovative methods and techniques in practical work, whose role is to increase the credibility of management decisions, especially supervisory and control decisions. This is why management accounts currently have a strong influence on decision-makers in organizational and social management.

Management accounts shall provide the entity with relevant and timely information on the basis of which the decision-making process operates. It is no longer a mere provider of financial information, but a complex of instruments focusing on strategic management, competition and perspectives.

We are of the opinion that management strategy and management accounting are now part of the same management system, and the cost calculation directed to control and planning is one of the most important components of the performing entity.

Cost calculation provides information that concerns both cost and performance, and is a management tool, a decision-making technique aimed at ensuring the conditions for maximising profitability. However, the cost determination involves a number of constraints generated by the type of activity carried out by each individual entity, the forecast/budgetary management methods, the contractual terms, and the correct perpetuation of the analytical recording system, which must make it possible to compare relevantly between different temporal stages.

Therefore, management accounting is not only a self-standing discipline, which ensures knowledge and control of costs, but also a managerial information support. Understanding, knowledge and control of costs limits their level, thus ensuring the efficiency of the entity's resources and avoiding waste.

Cost calculation methods are rapidly and complex, based on new theoretical and practical research. It is clear that in this context we are addressing the issue of identifying the best method that can be implemented in bakery industry entities with the aim of optimizing performance, costs and value.

The choice of a certain method of calculating costs will always have both advantages and disadvantages, the decision on the use of a particular method being necessary to develop following a detailed analysis of them as well as the precise identification of information needs of managers. It may also not be necessary to change the cost calculation method, only to improve the existing one. This will lead to a cost economy compared to the implementation of a new method, which involves increased consumption of time, financial and human resources. If, however, it is considered necessary to change the calculation method, the preparation of this decision should only be made after the analysis of the relationship between the implementation costs, the costs of oprtunit and the long-term benefits.

Bibliography:

1. The Association for Economic and Social Studies and Forecasts, Competitive advantages of the Romanian manufacturing industry in the European Union, Bucharest, 2007
2. Bărbulescu C., Bâgu C. (2001), Production management, vol. II – Management policies of production, Economic Publishing House, Bucharest, p.23
3. Briciu S., Căpuşneanu S., Rof M.L, Topor D., Accounting and control Management, tools for quality performance evaluation, Aeternitas Publishing House, Alba Iulia, 2010
4. Briciu S., Sas F., Identification of the causes of the costs at S.C. 'Apulum' S.A Alba Iulia,
5. Căpuşneanu S., Briciu S., Analysis of the possibilities of organizing the accounts by The target Costing method within Romanian entities, Magazine theoretical and applied economy.no 9, 2011
6. Harvey J. (2008), Performance measurement, CIMA
7. Walther L. M. (2017), Managerial Accounting 2016-2017 Edition, p.27-38
8. Hilton R.W., Platt D.E. (2018), Managerial Accounting: Creating Value in a Dynamic Business Environment, 10th Edition, p. 51-53
9. Man M., Răvaş B., *Implementation of management accounting tools solution to enhance the performance of public capital companies in difficulty. case study: romanian television company,* Internal auditing & risk management journal**,** nr.1 (45), march 2017
10. Nobes C., Parker R. (2004), Comparative International Accounting, eight edition, Pearson Education Limited, London, p. 549-551

*** http://statistici.insse.ro
***www.panificaţie.com.ro
***http://www.contabilitateactual.ro/
***www.rompan.ro

ACCOUNTING FOR SUSTAINABILITY - STRATEGIES AND ARGUMENTS OF GLOBAL CHALLENGES

Adriana Păduraru (Horaicu), PhD. Stud.
IOSUD-SDSE Valahia University of Targoviste, Romania,
adriana_paduraru@yahoo.ro

Ana-Maria Comândaru (Andrei), PhD. Stud.
IOSUD-SDSE Valahia University of Targoviste, Romania,
annyys13@yahoo.com

Christiana Brigitte Sandu, Associate Professor.
Faculty of Economics and Business Administration,"Alexandru Ioan Cuza" University of Iași, Romania,
itte7@yahoo.com

Mihai Andrei Mirica
IOSUD-SDSE Valahia University of Targoviste, Romania, andrei_mirica@yahoo.com

ABSTRACT: *Given the current changes in the business environment, as a result of awareness of sustainable responsibility, it is necessary to develop new reporting models, both in accounting theory and in practice, evoking the beginning of a repositioning to highlight the social importance of accounting. The complexity of sustainability issues and the means considered as an 'integrating factor' needed to address them, this article lies in a transdisciplinary debate that validates the requirement for a new accounting model. It is intended to lead to progressive decision-making and accountability models to build a key link between the entity and all stakeholders (investors, customers, suppliers, corporate governance agencies, employees and other groups): called sustainability accounting.*

Thus, our research proposals on accounting strategies for sustainability propagate in-depth analysis to multiple perspectives of performance measurement: strategies on cost analysis in sustainability accounting, strategies and tools for measuring the risk sand performance of entities from the perspective of sustainable development.

Keywords: *accounting, sustainability, entity, strategies, performance, tools, social responsibility.*

JEL cod: Q56

INTRODUCTION

In an unpredictable and highly competitive global market, where economic entities exert great pressure, the role of economists, particularly accountants, extends beyond the narrow knowledge of regulation to include vision, adaptability and a high capacity to address sustainability issues. Thus, the integration of sustainability in economic education and practice is required (Munteanu, Stanescu & Rakos, 2013), so that entities can reach that much desired level of economic competitiveness.

Based on the review of the literature we outline the idea that although there is a significant interest in approaching the concept of sustainability in economic education, with particularization in accounting, demonstrated by the wide range of topics covered in a large number of high quality journals, dispersion

is extremely high, topics are not treated consistently and the impact of research is not reflected in practice. There is a need for a development of research based on documentation on the deepening of economic disciplines that deals centrally or collaterally with aspects of sustainability.

Such a development of economic / accounting education towards sustainability has a high potential for success, given the importance of accountants for the business sector, as well as the importance of the business sector for sustainable development, both observed and expressed by academics, profession and the business environment. (Ionescu, Coman, Paschia, Nicolau & Stanescu, 2020).

Accounting for sustainability requires that well-founded research meant to lead to the discovery of new aspects of the essence of education in economics and accounting, stakeholder requirements and the concept of sustainability designed at the micro and macroeconomic level. The complex actions between these elements must result in designs, innovations, new evolutions and solutions to the traditional approaches of university education increasingly present both in scientific research and in the business policies of the entities (Ionescu, Coman, Lixandru & Groza, 2017).

Analyzing the international literature, as well as the one in Romania, we observed that it aims to highlight the stage of development in the literature that addresses accounting for sustainability and to establish the main trends adopted by specialized international publications and Romanian researchers. Taking the view that these two types of research complement each other in order to better meet the aim, the interest and timeliness of this research on sustainability accounting, emphasizes the development of accounting as a social and environmental practice in so far as attention to social dimensions and environmental level of economic activity has increased.

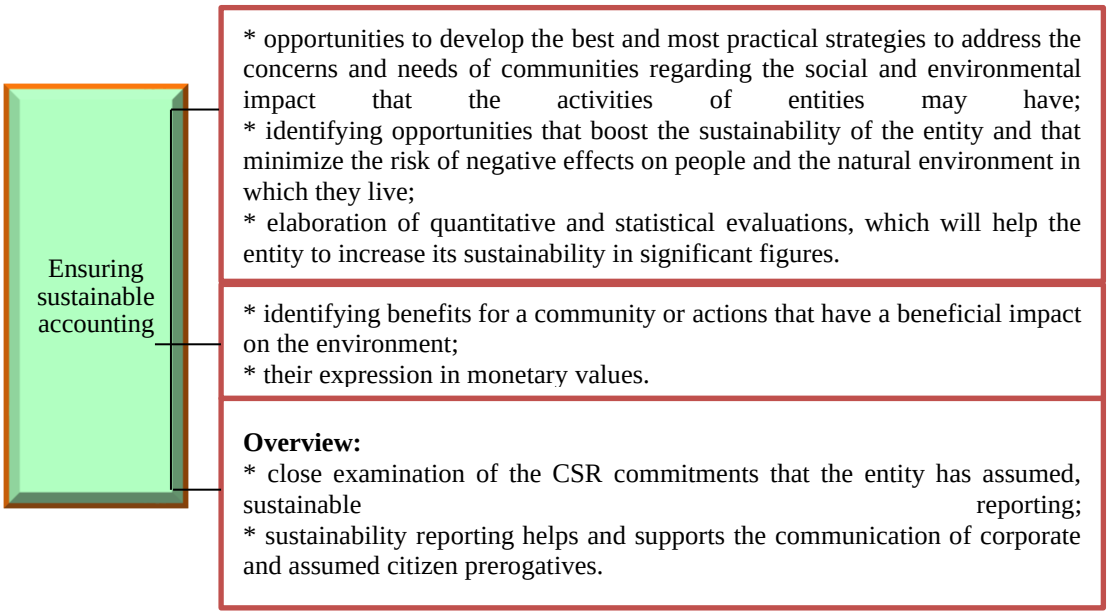
We recognize that the concern for integrating social and environmental factors into traditional financial reporting and performance measurement is increasingly present in both scientific research and business policies of entities, a situation that shows us that providing models and accounting strategies sustainable for entities is a major interest and should be given due attention (Diaconeasa & Stanescu, 2012).

Identifying these opportunities will be challenges of increasing importance for professional accountants, financiers and economists of the future (Stanescu, Paduraru & Comandaru, 2018). But we must recognize that today sustainable accounting is only at the level of initiatives, this is still seen by many professional accountants as an inaccurate or underdeveloped science.

All these aspects can create a positive activity, can help the entity to conclude contracts, in those commercial relations in which sustainability is an eligibility criterion for contracting and can even play an important role in promoting the entity as a good employer on the labour market. The more we witness an acceleration of the CSR (corporate social responsibility) prerogatives assumed by entities and organizations, the more certain professions will undergo deontological changes.

If until now the accounting profession was considered quite dull and without challenges, in the future those accounting professionals will be favoured who through their mastery will reflect in numbers saving solutions for the future of the entities in the community and the environment in which they operate.

Figure no.1. Reasons for sustainable accounting



(Source: own processing)

Thus, we authors, based on the literature in the field studied, came to the conclusion that it is necessary to express a second point of view on the definition of accounting for sustainability, namely: Accounting for sustainability can be defined as accounting that encompasses financial, managerial, environmental, social, creative accounting, constantly interfering with all economic fields such as: economics and international business administration, marketing, statistics and economic informatics, management, finance, as integral parts of functions the entity of: research-development, production, commercial, human resources and last but not least with the accounting policies / strategies necessary to be implemented in order for it to achieve its goal, policies / strategies well anchored in today's economic reality, which will be also found in the legislation so necessary for the sustainable development of all or entities, regardless of their size, as well as the activities carried out by them.

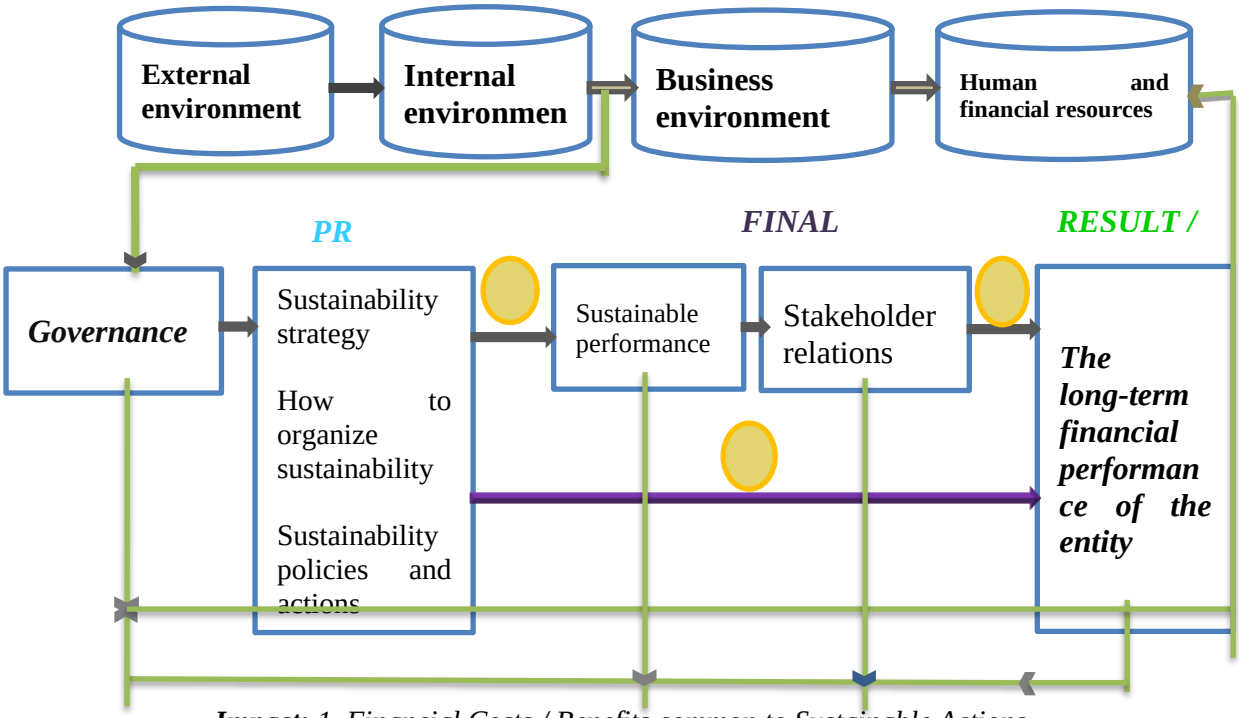
1. STRATEGIES ON ANALYSIS OF COSTS IN ACCOUNTING FOR SUSTAINABILITY

Costs in sustainability accounting, repositioning the performance measurement of entities from the perspective of sustainable development and sustainable intellectual capital are new tools of performance in their strategy and risk reporting in sustainable strategies.
All this can be achieved through a well-reasoned analysis of the current state of knowledge in the field of accounting policies / strategies and actions and actions to minimize the negative effects on the environment, those costs influenced by the principles underlying sustainable development, by extending the traditional cost model to a model capable of generating costs that correspond to the objectives of sustainable development, to incorporate new resources and intellectual capital in decision-making actions and new commitments imposed by the risks related to the sustainability of strategies implemented by entities .

The implementation of some models regarding the sustainability of the entity is meant to support managers interested in including the sustainable development strategy in the current activity and in translating this strategy into distinct actions, which have the role of optimizing financial and sustainable performance (Margarit-Stanescu , Bran-Stan, Ionescu & Rakos, 2012). Thus, initial elements of a certain process or phenomenon have the role of guiding the managers of the entities in the development of some remarkable sustainability strategies, in the determination and creation of the sustainability programs and actions.

Their results can positively or negatively influence the sustainable performance and the reactions of the interested parties, as information and data processing, of the final product, which will be reflected in the financial performance of the entity, of the result. Analysts in the field point out that management and organizational culture are factors that analyze the causes and indicate the means for correction, performance and sustainable success of the entity (Coman, Ionescu & Lixandru, 2019).

Figure no.2. Sustainable entity model

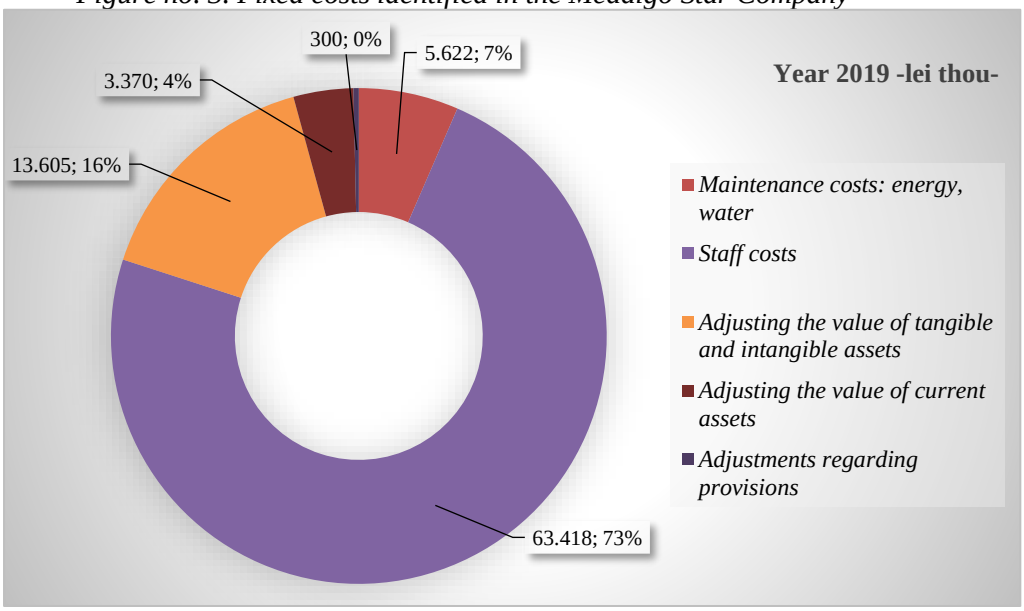


Impact: *1. Financial Costs / Benefits common to Sustainable Actions*
2. Social Impact
3. Financial Impact through Sustainable Performance
(Source: Own projection, adaptation after Epstein, Buhovac and Yuthas, 2010, p. 41)

2. ENTITY'S COST ANALYSIS - SUCCESSFUL SUSTAINABILITY STRATEGY

In order to identify the costs, we analyzed the financial-accounting records of the entity "Medalgo Star", existing at the end of 2019. Thus, we classified the costs, in order to identify them more easily, into fixed costs and variable costs, but we also took into account the hidden costs.
Fixed costs are identified in the cost of resources consumed by the entity, whether they make sales or not. For this we will take as an example: expenses for rent, security, electricity, telecommunications, salaries and social contributions.

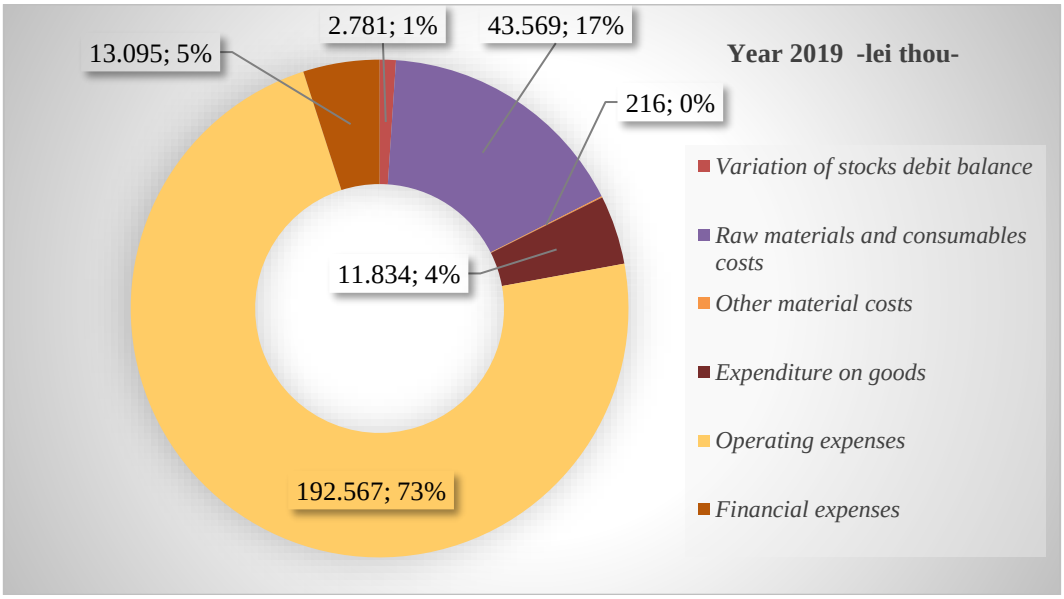
Figure no. 3. Fixed costs identified in the Medalgo Star Company



(Source: own processing)

Variable costs are identified in the cost of resources consumed by the entity to make sales, as follows: expenses with goods sold, sales transport, commissions for sales representatives, etc.

Figure no.4. Variable costs identified in the Medalgo Star Company



(Source: own processing)

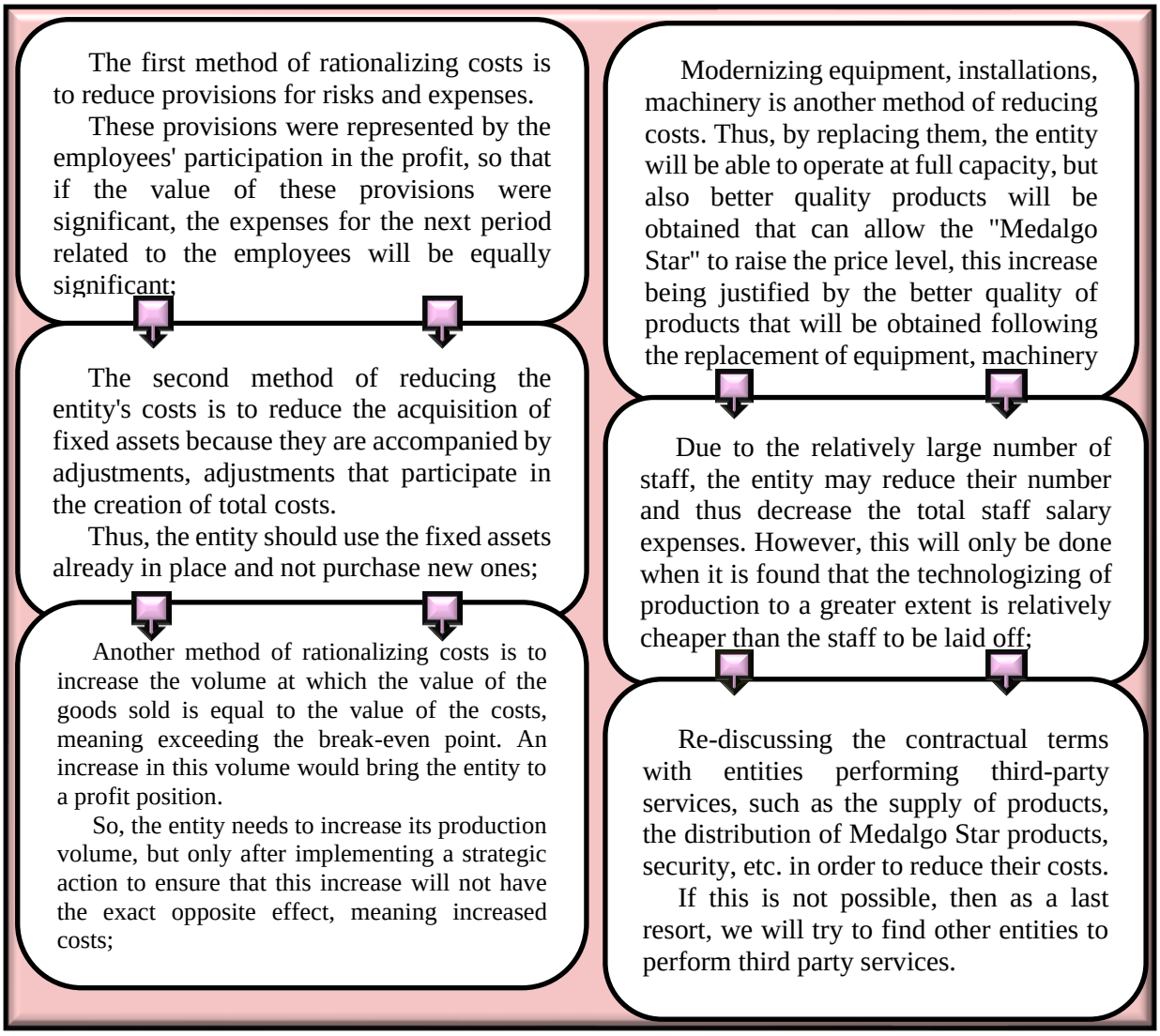
The total expenses registered by the entity in 2019 are 205.662 thousand lei and in the previous year they were 217.846 thousand lei representing a general decrease, which led to an increase in gross profit by 2.269 thousand lei, and implicitly of the net result of the exercise, as well as of the turnover in 2019, compared to 2018. In conclusion we can say that the activity carried out by the entity in question is a sustainable one.

But the entity also has "hidden" costs. These are identified in distribution commission contracts that brought expenses in excess of 28 million lei. For loans committed to banks in the amount of 20.250

thousand euro, as a result of which the entity had to submit as collateral buildings, land, fixed assets in total amount of 22.143 thousand euro, but also the assignment of debt rights to banks, as well as the establishment of a real estate guarantee on the debit balances of the accounts in lei and in foreign currency.

Consequently, it can be seen that the Medalgo Star entity analyzed is trying to act on those categories of costs that have unjustified weights, trying to minimize costs through various effective strategies and methods.

Figure no.5. Methods used by the "Medalgo Star" entity on cost sustainability



(Source: own processing)

The behaviour of the rational producer towards cost results directly from the objective purpose of his activity (profit maximization) which is based on rationality in mobilizing and allocating resources, on the spirit of competition and knowledge based on frequent economic calculations and analyses. In order to reduce its costs, the entity is constantly looking to increase its productivity because higher labour productivity would lead to a reduction in costs.

The entity "Medalgo Star", with drug production activity, has a number of employees of over 1.500 employees. Considered to be a large entity, it exceeds the average number of employees per entity at

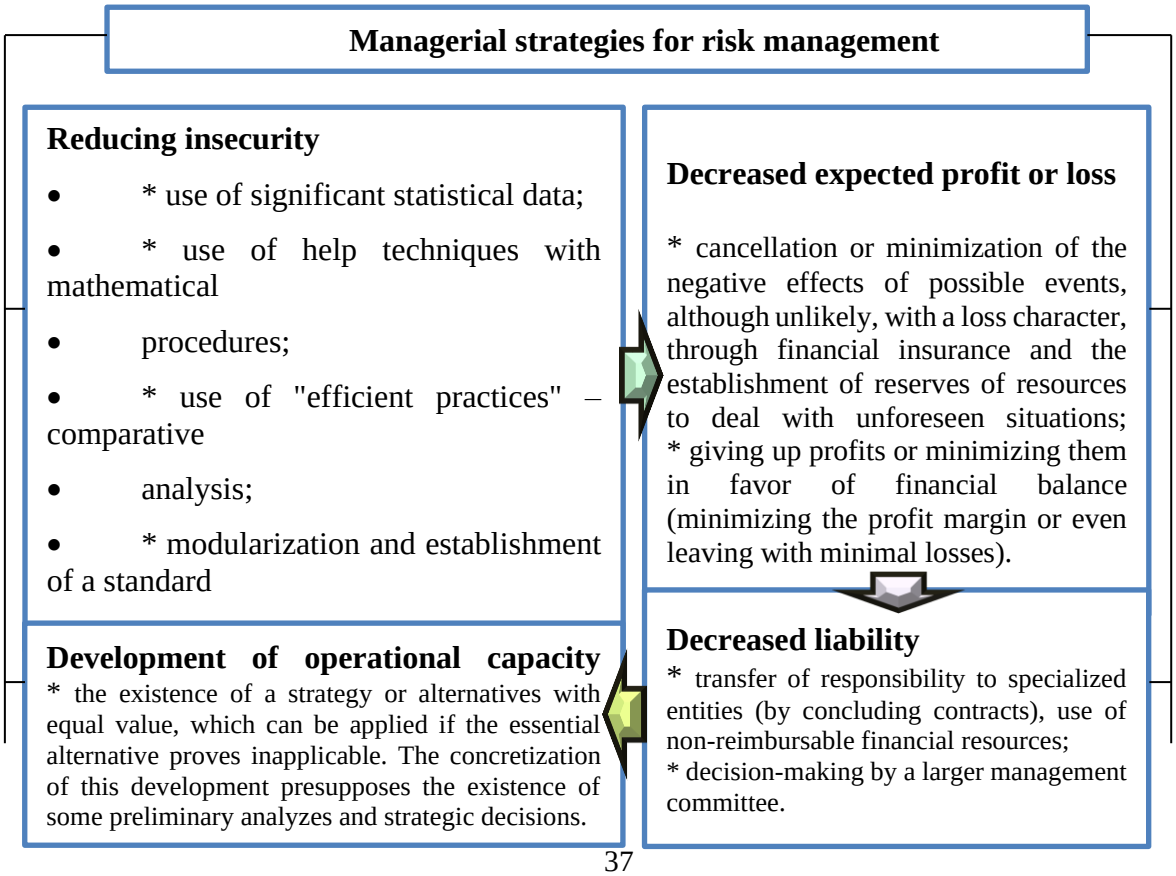
EU level, which is 545 employees, market level. In addition to all this, there is also a special attention paid to cost rationalization methods, the entity manages to reduce them simultaneously with the increase in revenues that led to an increase in turnover in 2019 by 2%, compared to 2018. In 2018 the turnover registered by the entity was of 215.806 thousand lei and in 2019 of 219.754 thousand lei. This increase in turnover is considered relatively large if we consider the situation of the external environment, namely the financial crises.

The business strategies as well as the financial results recorded represent a solid guarantee that the entity "Medalgo Star" has secured a solid position in the market. At the same time, the results obtained ensured a higher degree of financial stability for the entity in order to implement modernization and sustainable development programs of the main sectors of activity (basic production, production of utilities, marketing, research, quality control). The entity continuously conducts analyzes and estimates based on historical experience and other factors, including forecasting future events that are considered reasonable under existing circumstances.

3. STRATEGIES AND INSTRUMENTS FOR MEASURING RISKS AND THE PERFORMANCE OF ENTITIES FROM THE PERSPECTIVE OF SUSTAINABLE DEVELOPMENT

For the strategies of sustainable entities we extend the research to different perspectives of performance measurement in conjunction with accounting tools: costs in accounting for sustainability, repositioning of performance measurement of entities from the perspective of sustainable development and sustainable intellectual capital. Risk management is the action of identifying, measuring, analysing and controlling risks followed by the development of strategies for their proper management, resulting from the manifestation of operational factors and decision-making that lead to balancing the cost of risk with the entity's benefits. Risk management aims to identify uncertainties with the potential to harm the objectives set by the entity's management team in order to achieve performance, analyse them so that they are understood and develop by implementing concrete measures to stop them or to minimize their impact on the achievement of objectives (Caraiani et al., 2010).

Figure no.6. Managerial strategies for risk management



(Source: own processing)

If the potential factors threatening the entity cannot be properly managed, risk management may be transferred to entities specializing in risk management. Risk management requires two dimensions: variability of factors (consequences of the occurrence of the negative event) and cost of administration. The cost of risk management is given by the sum of all expenses related to the presumptive risk (Ghita, 2009).

The essence of the risk is defined by the formula:

RISK = probable variants x uncertainty x expected profit / loss x liability x development

The risk exposure measurement system is two-dimensional or, in other words, of matrix type, where: the variations of the impact are inscribed on the lines; the probability variations are written on the columns. Risk exposure occurs at the intersection of rows with columns. If the entity has adopted the three-step probability and impact analysis system, it results that the risk exposure analysis system has 9 values (3x3), and can be represented as such:

Figure no.7. Example of a risk exposure measurement system

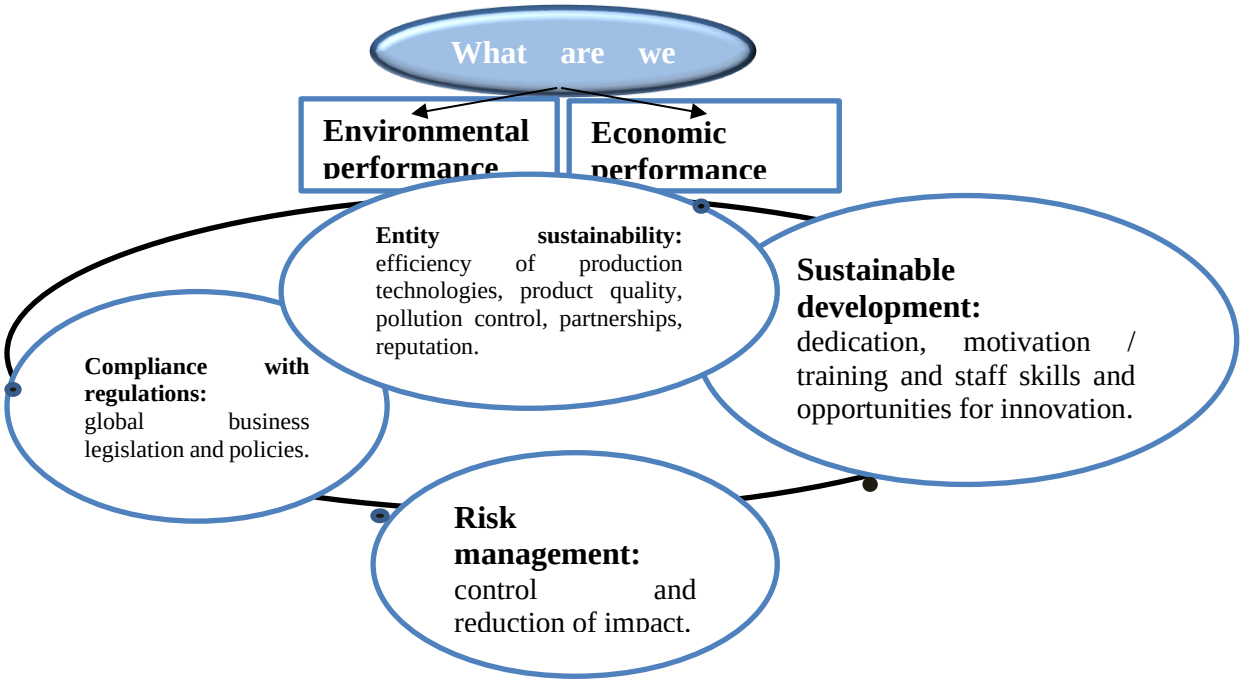
Probability			
High (3)	L-H (3)	M-H (6)	H-H (9)
Medium (2)	L-M (2)	M-M (4)	H-M (6)
Low (1)	L-L (1)	M-L (2)	H-L (3)
Impact	**Low (1)**	**Medium (2)**	**High (3)**

(Source: adapted from CAFR Magazine "Audit Practices" on risk analysis, Year V, no. 1 (17) / 2016)

The figure above highlights that risk exposure develops a risk structure. Under these conditions, the risk exposure is calculated according to the formula: E = P x I, where: E is the risk exposure; P is the probability of occurrence of the risk; I is the impact on the objectives, if the risk becomes real.

The merging of risks identified in an entity based on risk exposure leads to the development of the entity's risk profile. Risk tolerance shows the "magnitude" of the risk that an entity is prepared to tolerate or is willing to take. Growing environmental concerns, along with public pressure and stricter regulations, tend to change the way people do business around the world. According to the global guide to business and sustainable development, several steps are needed to develop sustainability: compliance with legislation, implementation of risk management policies, incorporating sustainable development into the entity's strategy for the future.

Figure no.8. Steps to measure and analyze the sustainability of the entity



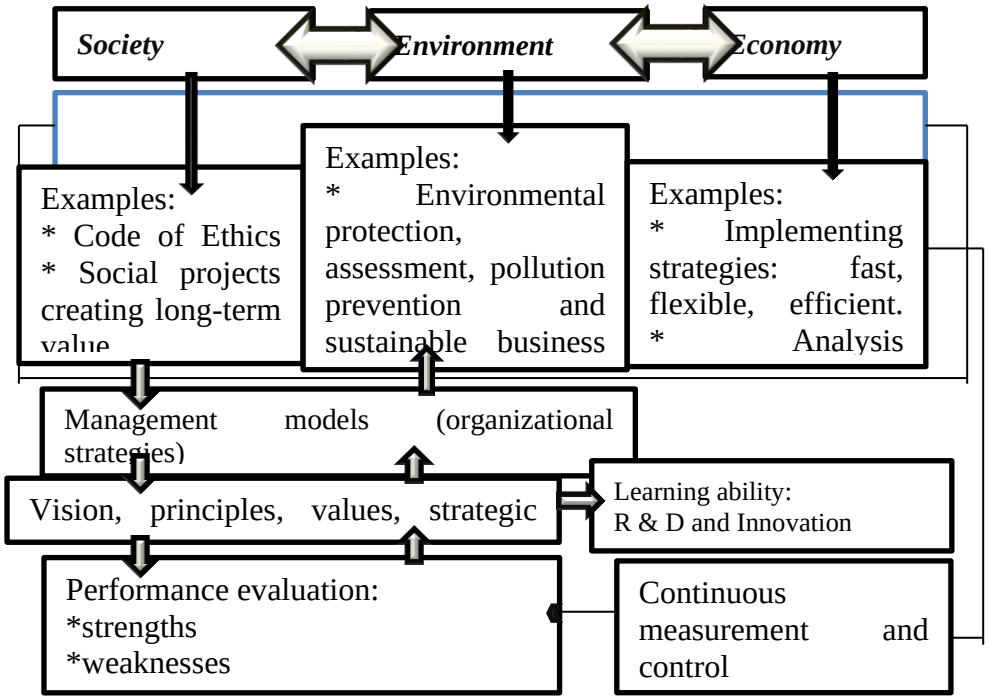
(Source: own processing)

The aim is to develop win-win situations that can increase the quality of the environment, the social welfare and the competitive advantage of entities. For entities to participate in sustainable development, it is desirable that the entity's performance bring improvements in all three areas of sustainable development: economic, environmental and social. The entity's sustainability and business strategy provide the conditions under which the entity's performance is discussed. The general idea that just reflects the sustainability management developed in the figure below tries to approach the issue of sustainability in an integrative way.

Sustainable development is a natural extension of many environmental policies at the organizational level. In pursuing economic, environmental and community benefits, the management of sustainability-oriented entities takes into account the long-term interests and needs of stakeholders. Strategies considered as problems that in the previous stages could be considered as expensive or risky, things that in the current situation are minimized.

The results include new business strategies with low external negative impact, optimizing financial performance, as well as an evolving reputation among entities and stakeholders. For entities, sustainable development means adopting strategies and activities that meet the needs of the entity and those of stakeholders, while protecting and strengthening the human and natural resources that will be needed in the future.

Figure no.9. Strategies for a sustainable business



(Source: own processing)

In order for it to be well supported, we will also call for the presentation of problems and constraints regarding the evolution of sustainability, as well as of some methods for monitoring and analyzing the development of sustainability through the following equation:

$$\mathbf{g = rp + DT/CP\ (r-i)\ p}$$

where:
g = evolution of equity; r = net rate of return (after tax) of invested capital - ROE; i = interest rate after tax; DT-total debts; CP-equity; p - the proportion of undistributed profits.

This correlation is the equation of sustainable evolution.
Given the policies and stable performance of a business, the rate of evolution of equity will practically illustrate the rate of balance sheet development, necessary to support the evolution:

* In order for the rate of evolution of equity to be sustainable, it is necessary to find the balance between financial profitability (the contribution between the invested capital and the contribution of the financial leverage with which the entity operates), the reinvested profit and the distributed dividend.
* The equation presented above expresses the rate of evolution of equity that can be confirmed by an activity in the conditions of maintaining stable policies and conditions.
* The evolution of equity will be consolidated at a rate determined by the above equation and will ensure: the continuous ability to invest funds at the indicated return; maintaining a stable ratio between total debt and equity; constant interest rate and dividend distribution.

CONCLUSIONS

The current global context puts the business world in front of situations of great complexity through the multitude of interdependencies that characterize them and the persistent economic crisis only brings to the fore an aspect that, although it has never lost its relevance, has never been long aware of so much

intensity, namely the issue of sustainable development. Sustainable organizational change is of ascending importance that leads to a rethinking of management and tools for measuring and monitoring performance within entities. Solving the challenges of science in the field of accounting for sustainability requires a clearer establishment of organizational responsibility, through rigorous legislation and assumed by state institutions, as well as entities for future sustainable development. At the same time, we need new styles of institutional organization to strengthen and support interdisciplinary, long-term research, involving scientists, practitioners and citizens in setting priorities, creating new scientific knowledge, assessing possible consequences and testing them in practice. Thus, the sustainability of the entity is highlighted by the continuous development of the entity and its profitability; they also require a profit that pursues social objectives, especially those related to sustainable development - environmental protection, social justice, equity and economic development.
A sustainability strategy assumes that the management of these risks and the achievement of a balance between performance objectives (economic, social and environmental) in the short and long term. At the same time, there are many opportunities for innovation towards more efficient, better performing products, but with a low impact on the environment and on the regeneration of all resources in order to ensure a sustainable future for next generations. The way in which organizations choose to implement the principles of sustainability at the level of business strategy will be the basis of their success in achieving a long-term competitive advantage.

The results of the research confirmed both the importance of leadership and visionary management, as well as the role of organizational culture and change management in integrating sustainability at the entity level. The importance given to the existence of a visionary management team in the adoption and implementation of innovative strategies for cost analysis, management of sustainability risks at the level of the entity while ensuring a framework for the application of sustainability accounting in line with current requirements. Thus, it is considered that the visionary, responsible leadership influences the efficiency and speed of the organizational change process, so necessary in achieving the organizational sustainability objectives.
The well-defined strategy for the analyzed entity is the basis of the key performance factors that have the greatest influence on the achievement of the basic strategic objectives (measured by result indicators) identified for all perspectives.
So, even if the data from the scientific accounting literature, the requirements of accounting regulators and the practice of the business environment are collected, examined and interpreted to reveal the logic and importance of the new vision of sustainability reporting: recognition, evaluation and presentation of social information and the environment along with the financial ones, we make it clear, through this examination, that traditional accounting systems need to be reconfigured in a broader context, under the insightful influence of those who are against sustainability.

REFERENCES

[1] Caraiani, C., Lungu, C., Dascălu, C., Colceag, F., & Guşe, R. (2010). Contabilitatea verde–Strategii transdisciplinare către contabilitatea socială şi de mediu. *Bucharest: Bucharest University of Economic Studies Publishing House*.

[2] Coman, M. D., Ionescu, C. A., & Lixandru, M. (2019). Romanian Economy between Linearity and Circularity. A Bioeconomic Perspective. *LUMEN Proceedings*, *7*(1), 59-72.

[3] Comândaru Andrei, A.M.,Stanescu, S.G. & Paduraru Horaicu, A. (2018). The Phenomenon Of Tax Evasion And The Need To Combat Tax Evasion. *THE JOURNAL CONTEMPORARY ECONOMY*, *48*.

[4] Diaconeasa, A.A., & Margarit Stanescu, S.G. (2012). Perspectives of environmental accounting in Romania. *Procedia-Social and Behavioral Sciences*, *62*, 610-614.

[5] Epstein, M. J., Buhovac, A. R., &Yuthas, K. (2010). Implementing sustainability: The role of leadership and organizational culture. *Strategic finance*, *91*(10), 41.

[6] Ghiță M., Auditul Intern, ediția a II-a, 2009, Editura Economică, Bucureşti;

[7] Ionescu, C. A., Coman, M. D., Lixandru, M., & Groza, D. (2017). Business Model in Circular Economy. *Valahian Journal of Economic Studies*, *8*(4), 101-108.

[8] Ionescu, C. A., Coman, M. D., Paschia, L., Gudanescu Nicolau, N. L., & Stanescu, S. G. (2020). Sustainable Economic Intelligence: A New Dimension of Information Provided by Non-Financial Indicators. *Improving Business Performance Through Innovation in the Digital Economy*, 117-143.

[9] Margarit Stanescu, Sorina-Geanina, Bran Stan, Cornelia Nicoleta, Ionescu Eftene, Nicoleta & Boka Rakos, Ileana-Sorina, (2012). Coverage of environmental information in annual financial statements in a responsible manner. *Procedia-Social and Behavioral Sciences*, *62*, 526-530.

[10] Munteanu, V., Stănescu, G. S., & Boca Rakos, I. S. (2013). The Degree of Reporting of the Environmental Information by the Economic Entities in Romania. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, *3*(2), 78-83.

THE RELATIONSHIP BETWEEN THE ECOSYSTEMS, ECO-SOCIETY, AND GREEN ECONOMY, AS DECISION-MAKERS FOR ORGANIZATIONAL AND IMPLEMENTATION OF ENVIRONMENTAL POLICIES

Constantin Aurelian IONESCU, Lecturer
Faculty of Economics, Hyperion University,
ionescuaurelian89@gmail.com

Mihaela LIXANDRU (LEASA LIXANDRU), Ph.D. Stud
IOSUD-SDSE Valahia University of Targoviste, Romania
mihaelalixandru89@yahoo.com

Liliana PASCHIA, Lecturer
Faculty of Economics, Hyperion University
paschialiliana@gmail.com

Mihaela Denisa COMAN, Researcher
Institute of Multidisciplinary Research for Science and Technology, Valahia University of Targoviste
cmndenisa@gmail.com

Dan GROZA, Ph.D. Stud
IOSUD-SDSE Valahia University of Targoviste, Romania
aldgroza@yahoo.com

Abstract: *The relationship between the ecosystems, eco-society, and green economy, as decision-makers for organizational and implementation of environmental policies, must enable the accounting framework to be conducive to create a close connection between the entity and the environment and to prepare the implementation of the organization's environmental policies. The awareness of the need to treat as decision-making factors of the relations between the three items will lead to the improvement of the long-term activity and at the same time to the increased environmental protection. The objective of this article is to value the necessity to consider the relationship between ecosystems, eco-society and green economy to obtain the best results both for the organization and environment.*

Keywords: environmental impact, ecosystem, environmental policies, protection of the environment, eco-society, green economy

JEL Classification: Q57, F60, O10

1. Introduction

The 21st century is characterized by the researchers and decision-makers' concerns on climate change, population growth, resource depletion and food security. Over the past few years, the concern for climate change has become a central issue for both the researchers and environmentalists and governments around the world. Thus it has triggered the need to design and develop global policies to combat the negative impacts of climate change. They found that the way the modern economy works generates

pollution, which poses a fundamental threat to the survival of the current and future generations. The modern economy age is entirely based on oil exploitation, but there is a growing need for a green economy – an economy which aims at the rational use of the limited natural resources, the development of human well-being, the job growth, and the minimization of the social exclusion –to resolve the conflicts and tensions generated worldwide by the inequalities between the rich and the poor (Molly Scott Cato, 2009, p. 9). At the same time, the modern economy is focused mainly on quantity, while the green economy is concerned with both quality and human well-being. The profit – and hence the economic growth – is the major mobilizing factor of the economic activities, nevertheless, according to the green economy, these goals can be fulfilled by meeting a few requirements: respect for nature, a rational use of resources, and increased use of renewable, as well as the implementation of advanced manufacturing technologies which can achieve the best results possible with the lowest consumption of resources.

The green economy needs a mentality change in case of the economic entities (which should focus not only on profit and therefore on economic growth) towards an outlook which can suit a long-term sustainable economy, through the following: productivity maximization, improving the quality of goods, waste minimization, collection, recycling and transformation of the wastes into reusable raw materials, a reduction of both the pollution and of the consumption of gas, water and electricity. The green economy requires a change of mentality at individual level and then generalized at global level in terms of resource use - by becoming aware both of the facts that we live in a limited resource environment and also a limited space for waste storage and absorption, and especially that the whole humanity is responsible for the future of the next generations (UNEP, 2012, p.6).

The transition from the modern economy to the green economy implies the emergence of a new mentality in case of the economic entities, and also the creation of new professional qualifications and training of professionals who can work as members of a multidisciplinary team. Under these evolutionary circumstances, we can also expect that the educational system can converge towards a multidisciplinary system, which can integrate the environmental education into the formal education, and which, by doing so, will have the capacity to train the experts who will be able to green the industry sectors (UNEP, 2012, p.6). Increased research and innovation investments, technology development, and continuous knowledge lead to an acceleration of economic growth for the countries which have been allocating sufficient resources to these areas. However, we need to emphasize that the efforts made in the research field should direct towards: making effective the use of the non-renewable resources, the increased use of renewable sources, wastewater collection and treatment, water desalination, green building construction, green technology and industrial equipment; solid waste collection, recycling and transformation, finding potential substitutes for chemicals, reducing the air pollution, air treatment, industrial symbiosis, natural composting processes, etc. (Philippidis G., M'barek R., Ferrari E., 2016).

Achieving an efficient transition to the green economy is determined by the roles of the public and private sectors, which can impose on the civil society the need to achieve sustainable economic development that does not jeopardize the future of the next generations. Thus, the private sector, which is aware of the current reality, in conjunction with the needs and priorities of the local communities, can contribute to achieving sustainable development goals. Ensuring an effective public-private partnership can lead to strengthening the efforts and increasing the achievement of sustainable goals. At the same time, the financial sector, both private and public, can help support and finance projects concerning sustainable development. The government and state institutions can provide funding or stimulate both the economic entities and the population to use and implement innovative technologies that meet the sustainability goals (Hecht, Joy E., 2000). This study aims to highlight the necessity of establishing a link between ecosystem, eco-society, and green economy, a relationship of interdependence, causality, and circularity, which can and must lead to optimum results concerning the environment, and people, and economic entities as well.

2. Consideration about ecosystems

All human activity is correlated and guided by the evolution of ecosystems, which can be natural, human-induced, or as a result of human activity - from resource exploitation, pollution, etc. The following considerations characterize the functioning of an ecosystem (UN, 2014): structure; composition by living elements: microorganisms, flora, fauna, etc., and by structural components: soil, water, air, ores and minerals, etc.; functions (nutrient recycling, nutrient circuit, etc.); processes (photosynthesis, water circuit, energy flow, mineral circuit, decomposition, etc.). Ecosystems are the basis of life and all human activities, offering a wide range of goods (EU, 2010): food (vegetables, fish, meat), water, wood, fuel, and services (supply services, assistance and regulation services, and cultural services).

Services offered by the ecosystem can be synthesized as follows (UN, 2014):

a) Supply services: *Water* - for domestic use, agriculture, animal husbandry, production, hydroelectric and thermoelectric power generation; *Materials* - plants from spontaneous flora and animals, freshwater plants and fish, seaweeds and marine animals which are primary nutritional elements, nutrients and natural food for cultivated biological resources (crops and vegetable products, timber and cotton, cattle and dairy products, aquaculture food), plant fibers and animal components (timber, straw, algae, shells, leather, and bones for further processing in the manufacturing industry (fertilizers) or final consumption), herbal and animal chemicals (biochemical's such as rubber, enzymes, resins, oils, waxes, herbaceous substances) used in cosmetics, medicine, household or for further processing in industry, genetic material (genetic material for propagation of organisms (crops, livestock, aquaculture), etc.; *Energy* - energy resulting from the use of biomass (wood used as fuel, algae to be harvested for biofuel, garbage, grease, oils).

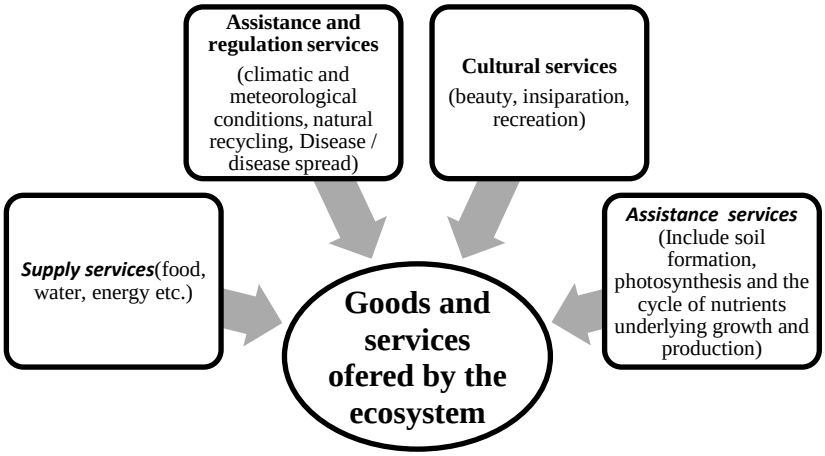
b) assistance and regulation services: *Bio-restoration and biophysical regulation of the environment* - Bio-restoration (chemical detoxification, reduction of plant pollution, algae, microorganisms and animals) to reduce the level of pollution, reduce soil and water contamination; dilution, filtration and capture of pollutants; *Flow control* - airflow control (natural or planted vegetation that serves to create protection belts or to provide air purification services) with effects such as the decrease of storm intensity, the decrease of dust level in the atmosphere, the improvement of the ventilation and atmospheric temperature attenuation in the urban areas; water flow controlling (adjusting time and amounts of atmospheric precipitation, flood prevention and regulation of running water levels) having a significant role in the prevention of natural disasters; controlling the soil geological structure that prevents soil erosion, avalanches, and landslides; *Regulation and control of the environment from a physical*-chemical point of view - atmospheric control (carbon dioxide capture, maintenance of the urban climate, etc.) with effects on the reduction of the greenhouse gases in the atmosphere, reduction of the climate change; water circuit; control of pedogenesis and soil quality (maintenance of soil fertility and the cultivated systems structure) with consequences such as improving soil fertility and increasing crop productivity; adjustment of noise pollution; *Biotic environmental control*: life cycle control and habitat perenniality (pollination, seed dispersal, habitat, and young populations preservation) which contribute to improving crop productivity and habitat conservation; control of diseases and pests (control of pathogens) with effects such as reducing diseases and pests in crops.

c) cultural services: *Information and knowledge* - Knowledge on landscapes and biodiversity for scientific research, education and recreation; *Spiritual and symbolic* - Landscape, species biodiversity, heritage values, group identity, spiritual or religious functions.

The eco society can be defined using a three-dimensional vision. The first dimension consists of the ecological education of the inhabitants, the development of a mentality, both at the collective level and the individual level, with a broad view on environmental issues, the need to protect the environment and hence on the directions of action that need to be implemented to live in a green, sustainable society (UNEP, 2011). The second dimension consists of the transformation of the current cities into ecological cities, whose environmental performance can be quantified through: pollution level, carbon emissions, waste recycling volume and rate, energy consumption, as well as the share of generated and used green energy, water consumption and water quality, green spaces extension rate, biofuel consumption rate,

etc. And last but not least, the third dimension of the eco-society consists of the reflection as rates of the following indicators: the living standard of the population, the control of diseases, ensuring the progress towards sustainable consumption, the rate of ecological machinery use, ecological motorization of public transport, etc.

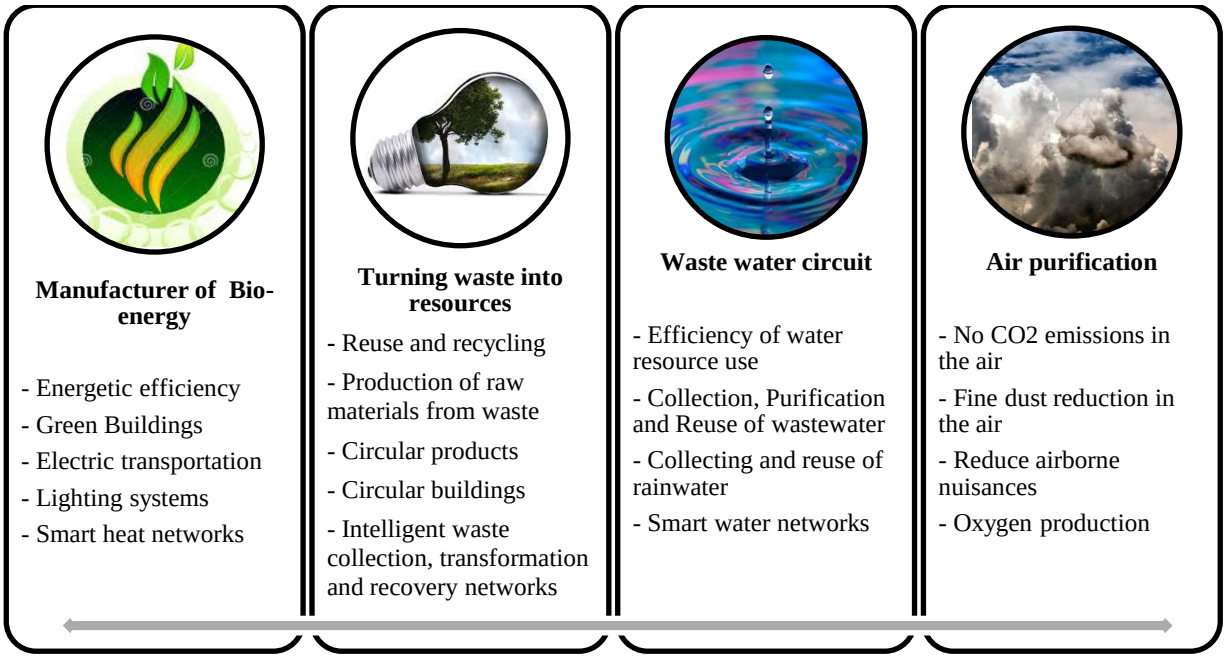
Figure 1. Goods and services offered by the ecosystem



3. Ecology society - 3D vision on the evolution of society

The central core of the eco-society is the green city because most people live in the city, and assessments have projected an increase of 1.4 billion people by 2030. Globally, people move to the cities in search of jobs, new opportunities for schooling and development, new ways of recreation, considerations which require the urban areas of the world to become centers of research and innovation to ensure an optimal co-existence between and ecosystem and man (UN, 2012).

Figure 2. The characteristics of an eco-society



In this context, green cities must develop by observing the following principles: i) creation of integrated public transport systems, promotion of cycling, promotion of walking, minimization of private transport use, etc. (TCPA, 2016); ii) creation of jobs close to housing areas, which leads to a reduced use of means of transport; iii) construction of houses, using biomaterials, with gardens, also used for recreational

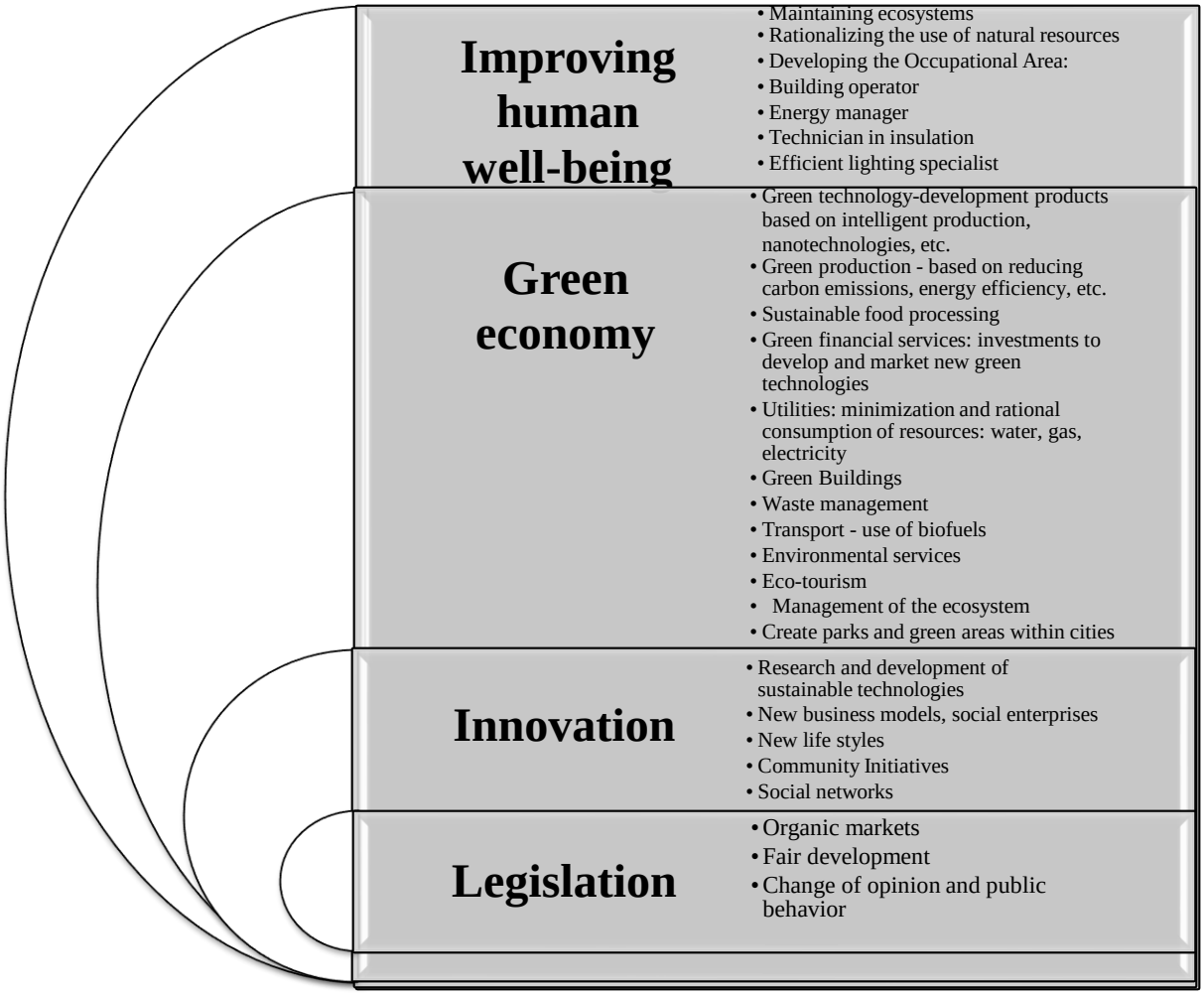
agriculture; iv) active and participatory community involvement; v) extension of green spaces and parks, which can reduce the stress and obesity of the inhabitants, promote sport and an active and healthy living regime; vi) a rational use of electricity, an increase in the use of green energy technologies; vii) the efficiency of the water resources use; wastewater collection, treatment, and reuse; viii) reduction of air pollution, with its primary effect both on the health of the inhabitants and on the environment; ix) noise reduction, etc.

4. Green economy - the future of the modern economy

The natural resources overuse prevents the sustainable development of the modern world economy. Though, the implementation of new production technologies streamlining the consumption of natural resources, based on the development and sustainable technical progress, the promotion and use of the innovation results, which is a basic condition for sustainable development, can lead to the reduction of the environmental impact of the world economies and to the creation of a guiding and advancing potential of the economies towards an environmentally sustainable future (Bailey I..& Caprotti F., 2014; Bretschger L., 2015). In this context, the green economy aims at outlining new definitions of the economic progress (CBD, 2014): i) by implementing certain indicators which reflect the individual welfare and prosperity, the economic resilience of the economic entities, as well as by highlighting the new business opportunities which contribute significantly to economic growth; ii) the reform of the financial institutions can lead to an improvement of the investment environment for the development of the sector of small and medium economic, ecological entities; (iii) the greening of large industrial sectors which consume natural resources and generate large quantities of waste; (iv) increasing the investment in human resources through education and skill training, to reduce poverty, social inequalities and social exclusion; v) managing natural systems leads to sustainable and equitable benefits both in the short term and mainly in the medium and long terms.

In the context of the transition to the green economy, the economic entities must adapt their work and reformulate their strategies in line with environmental policies, as follows (HMG, 2011): i) continuous ecological growth: there will be an increase in the green sectors, which will contribute significantly to the development of the green production techniques and technologies; ii) maximization of energy efficiency and resource use, which leads to the minimization of the production costs and to an increased competitiveness; iii) increased resilience - by including the risks in relation to energy security and other natural resources, and the environmental impact and climate change into the long-term business strategies; iv) adaptability to change: by including the variations of the natural resource cost into the business plans; v) consumer advice: the economic entity can influence the consumer's choices and promote organic products; vi) innovation: it becomes a basic component of the long-term and medium-term strategy of an economic entity, because it has to implement new technologies and to renovate the current ones in order to contribute to: the reduction of carbon emissions, the increase of the efficiency in case of the natural resources use, the minimization of the waste quantities and the cost minimization of the purchase, implementation and use of the green technologies; vii) infrastructure improvement can be achieved by combining the efforts of both governments and economic entities to support the green economy.

Figure 3. Features of the green economy



(Source: Karen Chapple, Defining the Green Economy: A Primer on Green Economic Development, Berkeley, 2008)

To integrate and use the new information provided by the green economy within the accounting system of an economic entity, several indicators, parameters, green accounting standards, and an account plan adapted to the requirements of the green economy must be created. That will contribute to a better report drawing from an economic point of view and, hence, to identify a way to highlight the environmental costs within the total cost of the production. Therefore a simultaneous development of operational measures concerning the green economic growth is characterized by a flexible approach that balances the cost-benefit report (ICC, 2011), is required. The green economy also relies on the development of a green industry that requires a sustainable development of industries which provide environmental goods and services within a diverse economic sector, atypical for the classical sector constraints, but which includes both the production of goods and specialized services (UNIDO, 2011). The economic entities producing goods specific to the green economy require entities that manufacture, install and qualify personnel for the use of renewable energy production equipment, non-polluting technology entities, and entities working in the waste collection, treatment, management and recycling, and also entities working in the wastewater collection, treatment, and reuse. There are also economic entities that provide consulting services intending to address the environmental, energy and water management issues.

The transition of the modern industries to green industries by using industrial greening becomes a long-term determinant for sustainable development and for increasing the competitiveness of economic entities acceding to this process (Ionescu C.A., 2017). As the cost of the non-renewable resources is an important part of the manufacturing cost of the goods, to create a competitive advantage, the economic entity acceding to the greening process is related to the efficient and rational use of resources. In this context, the industrial greening can be a factor in reducing poverty, but also in social exclusion, because it seeks to increase food, energy, health, and national security, and to create new jobs (UNIDO, 2011).

5. The relationship between the ecosystem, the eco-society, and the green economy - a decision-maker in setting environmental policies

All human activity shows not only negative, but also long-term positive effects as well for the environment, and the present society seeks to monitor and quantify the negative effects on one hand, and to highlight ways, mechanisms, technologies and evolutionary perspective regarding minimizing environmental effects on the other. Thus, in a cohabitation based on the relationship between the interdependence between man, the ecosystem, the eco-society, and the green economy, it is proposed to effectively and effectively monitor the effects of human activity on the environment and to identify means to minimize them to ensure future generations a clean environment, with a prosperous and harmonious green economic development.

The globalization and expansion of global economic entities, based on a production made for irrational consumption, and the use of non-renewable natural resources has led to significant changes and disturbances of the climate in natural ecosystems through the effects of pollution resulting from production processes, and it includes significant effects on human health. Thus, in recent years there has been a great research, innovation, and application movement to create and use a green economy, which requires a change of mentality, both individually and uniformly at a societal level, through awareness of the effects of human activities on the environment and identifying ways to protect it against the pollution. At the same time, there is a need for a structural change of the current economic entities to reduce pollution by implementing green production technologies, rationalizing the consumption of non-renewable natural resources and by establishing a meaningful bond between the human needs and the production, which can be recycled, renewed, reused or turned into new raw materials. At the same time, the importance of building eco-societies based on knowledge, multi-disciplinary education of the population, energy efficiency and use of biofuels, pollution reduction, and air purification, increasing recycling rates, increasing the efficiency of the wastewater circuit, and last but not least the rational use of natural resources.

The interdependent and causality relationship between human activity and the ecosystem, Eco-society, and the green economy aims to be quantified, introduced and recognized in the accounts of economic entities through monetary valuation effects on the environment through the potential use of alternative methods of production, increasing the use of renewable energy resources, minimizing the use of non-renewable natural resources, increasing the use of substitutes for natural resources, efficiency of resources used to rebuild or strengthen ecosystems and, implicitly, the environment. In this context, it is necessary: i) the coherent organization of environmental information carried out from a spatial perspective, which provides a correct picture of the link between people, the economic activity, the human activity, and the environment; ii) the use of a common set of concepts, terminologies, classifications and assessments leads to the creation of an integrated data-processing platform for research, testing and use of information; iii) to make a connection between economic activity and the environment that will allow assessment (the contribution of ecosystem services to economic

activity, the production, and consumption, the attribution of ecosystems consolidation and development on economic entities). To achieve an effective quantification of the effects of human and economic activities on the environment, we have to consider: the quantities of goods and services generated by the ecosystem, detailed in each sub-assembly; the carbon emissions amount; the recycling degree; the water pollution degree; the reuse of wastewater degree; the noise pollution; the energy efficiency degree; the transport efficiency degree; the use of biofuels degree (Owasu, P.A., 2016).

6. Conclusions

The human life, economic activities, and future generations are all dependent on consolidating, and the preservation of the environment, to ensure a minimum of resources to posterity, and the perpetuation of life on Earth. Thus, man is directly responsible for the effects and changes made to the environment, just as he is for ensuring the future.

All these considerations, based on the creation of an Eco-company and hence a green economy, based on rational use of natural resources, the development, support and supporting research to use new, clean technologies and techniques, increasing energy efficiency, using mainly Biofuels, rationalizing consumption and minimizing waste, increasing recycling, developing goods and products tailored to the needs of the consumer, creating goods that can be fully recycled, can be refurbished or reused, convert recycled materials into primary or secondary raw materials and develop markets to commercialize them, the multi-disciplinary education of the population, the efficiency of reuse of wastewater, the extension, and consolidation of green spaces, the construction of green buildings, etc., is reinforces a vision and a new point of view on the economy, which involves transforming the current economy based on consumption and production of non-renewable natural resources into a green economy that has as its main goal the harmonious cohabitation between man and nature as well as the effective development and welfare-friendly needed human development, an evolution defined by a mobilizing impact on poverty eradication, the avoidance of discrimination and the increase in health and education of the population.

Bibliography

[1] Bailey, I., & Caprotti, F. (2014). The green economy: functional domains and theoretical directions of enquiry. *Environment and Planning A*, *46*(8), 1797-1813.

[2] Bretschger, L. (2015), *Greening Economy, Graying Society*, CER-ETH Press, Zurich,

[3] Caribbean Development Bank, (2014) *A New Paradigm for Caribbean Development: Transitioning to a Green Economy.*

[4] European Union (2010), *Bunurile și serviciile ecosistemelor, available at:* http://ec.europa.eu/environment/pubs/pdf/factsheets/Ecosystems%20goods%20and%20Services/Ecosystem_RO.pdf.

[5] *General's High-Level Panel on Global Sustainability, Overview. New York.* www.un.org/gsp/sites/default/files/attachments/GSPReportOverview_Letter%20size.pdf.

[6] HM Government (2011), *Enabling the Transition to a Green Economy: Government and business working together*, available at: www.ukgbc.org/sites/default/files/Enabling_the_transition_to_a_.

[7] Green_Economy_Main_D.pdf.

[8] Hecht, Joy E. (2000), *Lessons Learned from Environmental Accounting: Findings from Nine Case Studies. Washington, D.C.: IUCN – The World Conservation Union, vi + 42 pp.* Available from: pdf format at www.iucn.org/places/usa.
[9] ICC Commission on Environment and Energy (2011), *Ten conditions for a transition toward a "Green Economy",* Document No. 213-18/7.
[10] Ionescu, C. A. (2017), Integrating the Environmental Accounting on the Information System of the Economic Entities. *Hyperion Economic Journal*, *5*(2), 42-48.
[11] Philippidis, G., M'barek, R., Ferrari, E. (2016), *Drivers of the European Bioeconomy in Transition (BioEconomy2030) an exploratory, model-based assessment,* Joint Research Centre.
[12] Molly Scott, C. (2009), *Green Economics. An Introduction to Theory, Policy and Practice*, Ed. Earthscan, London.
[13] Owusu, P. A., & Asumadu-Sarkodie, S. (2016). A review of renewable energy sources, sustainability issues and climate change mitigation. *Cogent Engineering*, *3*(1), 1167990.
[14] Town and Country Planning Association (2016), *Garden city principles*, available: www.tcpa.org.uk.
[15] UNEP (2012), *Green Economy in Action: Articles and Excerpts that Illustrate Green Economy and Sustainable Development Efforts.*
[16] UNEP (2011), *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication*, www.unep.org/greeneconomy.
[17] United Nations (2012), *Resilient people, resilient planet: A future worth choosing, United Nations Secretary-*.
[18] UNIDO (2011), *Green industry: Policies for supporting green industry*, Vienna, available. at www.unido.org/fileadmin/user_media/Services/Green_Industry/web_policies_green_industry.pdf.
[19] United Nations (2014), *System of Environmental-Economic Accounting 2012—Experimental Ecosystem Accounting*, New York.