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Faculty of Finance-Accounting
Pitești, Calea Bascovului no. 2A, Argeș County, Romania
Phone +400248-212627, int. 1019, fax +400248-221098
Email: revec@univcb.ro, cristina_ganescu@yahoo.com

Contact person:

Associate Professor Ph.D. CRISTINA GĂNESCU
Phone +400744420742
Email: cristina_ganescu@yahoo.com

THE ROLE OF ACCOUNTING INFORMATION IN UNDERLYING ECONOMIC DECISIONS

Associate Professor Florin-Constantin DIMA, Ph.D.

“Constantin Brâncoveanu” University of Pitești, Romania

E-mail: dimaflorin_constantin@yahoo.com

Abstract: *Accounting can be regarded as the universal economic language of the business world since it is a tool that allows the communication of economic information. Accounting has the role of providing useful information for underlying decisions at the level of economic entities. The accounting information is based on the activity specific to each economic entity. The accounting information is obtained by processing the economic-financial data of the entities using the means specific to the accounting system. Accounting is the most appropriate source of information for the management of economic entities due to the particularities and qualitative characteristics of the information they provide, in relation to any other source of information.*

Keywords: *accounting information, qualitative characteristics, relevance, credibility, significance threshold, opportunity.*

JEL classification: *M41.*

1. Introduction

Within the accounting system, the creation of the accounting information starts from setting certain objectives of the accounting and from establishing certain clear rules.

Accounting information is a product of “intelligent knowledge” and it has emerged as a result of information activities specific to the accounting field. These are those that concern the production and use of the accounting information and consist of actions aimed at creating, collecting, storing, processing the data and transmitting the information. The informational activities specific to the accounting field involve recording and calculation operations, as well as analyzing, interpreting, grouping and using the information during decision making.

Accounting is, in fact, the formalized language of business through which the internal and external representation of the economic entities is achieved. In other words, accounting is the universal language of the business world.

2. Specialized literature

The subject approached, being one of topicality and of great interest regarding the underlying of the decisions regarding the running of the current activity of the entity is often found in the specialized literature.

“The managers’ information needs are mainly covered by reports that are not published to other categories of users. These reports are usually prepared both on the basis of information from the management accounting and on the basis of the information in the financial accounting” (Feleagă and Feleagă, 2007).

“Accounting arose from the need to respond from an informational and decisive point of view to the issue of managing the separate economic values on patrimonial entities” (Ristea, 2004).

In order to be able to answer the needs of substantiation of the managerial decision, accounting is based on a system of principles, concepts and rules, and regarding the organization of the information-accounting system of an enterprise, “in the specialized literature two concepts are delimited: the accounting monism and the accounting dualism” (Vișan, Burada and Luță, 2006).

Given the essential role that accounting plays in substantiating managerial decisions, it becomes “an essential institution of capitalism” (Colasse, 2009).

3. Research methodology

The approach starts from the importance and the role that accounting information plays in substantiating decisions at the level of economic entities and not only. Thus, the following aspects are analyzed:

- the fundamental qualitative characteristics of the accounting information;
- the amplifying qualitative characteristics of the accounting information;
- the accounting information and the decision-making process;
- the organization of the accounting information system.

4. The qualitative characteristics of the accounting information

The qualitative characteristics of the accounting information, also called attributes, that determine the usefulness of the information provided by the financial statements are divided into two categories: fundamental qualitative characteristics and amplifying qualitative characteristics.

In order for the accounting information that emerges from the financial statements to be useful, it must fulfil, according to the General Conceptual Framework developed by the IASB, two fundamental qualitative characteristics represented by relevance and accurate representation.

The information from the financial statements is relevant when it has the ability to influence the economic decisions of the users, helping them to evaluate past, present or future events, confirming or correcting their previous evaluations. Financial information has this ability to make a difference in making decisions whether it has predictive value, confirmatory value, or both.

The predictive value of the financial information is given by its ability to be used by users to predict future results.

The confirmation value of the financial information appears in situations where it certifies previous evaluations.

The financial information is relevant if its omission or misrepresentation can influence the decisions that the users make based on the financial information about a particular entity. In this regard, the significance threshold is very important, whose value depends from one user to another.

The exact representation takes into account the fact that the financial statements represent economic phenomena in words and figures, and in order to be useful, the financial information must represent exactly the phenomena that it intends to represent. In order to be an accurate representation, the financial information must meet three characteristics: to be complete, neutral and error free.

According to the General Conceptual Framework developed by the IASB, a complete description includes all the information necessary for a user to understand the described phenomenon, including all the necessary descriptions and explanations, and a neutral description is one that does not bear influences in the selection and presentation of the financial information.

The usefulness of the relevant and accurately represented financial information is enhanced by the following amplifying qualitative characteristics: comparability, verifiability, timeliness and intelligibility.

Comparability facilitates the identification and understanding of the similarities and differences between the structural elements of the financial statements by the users of the financial information. In order for the financial information to be comparable, the same measurement and evaluation methods for the same elements within an economic entity must be used consistently during one or more reporting periods.

Verifiability is the qualitative characteristic that allows the users to be assured that the information represents exactly the economic phenomena that they intend to represent.

Opportunity considers making the financial information available to decision makers in a timely manner so that they can substantiate their decisions.

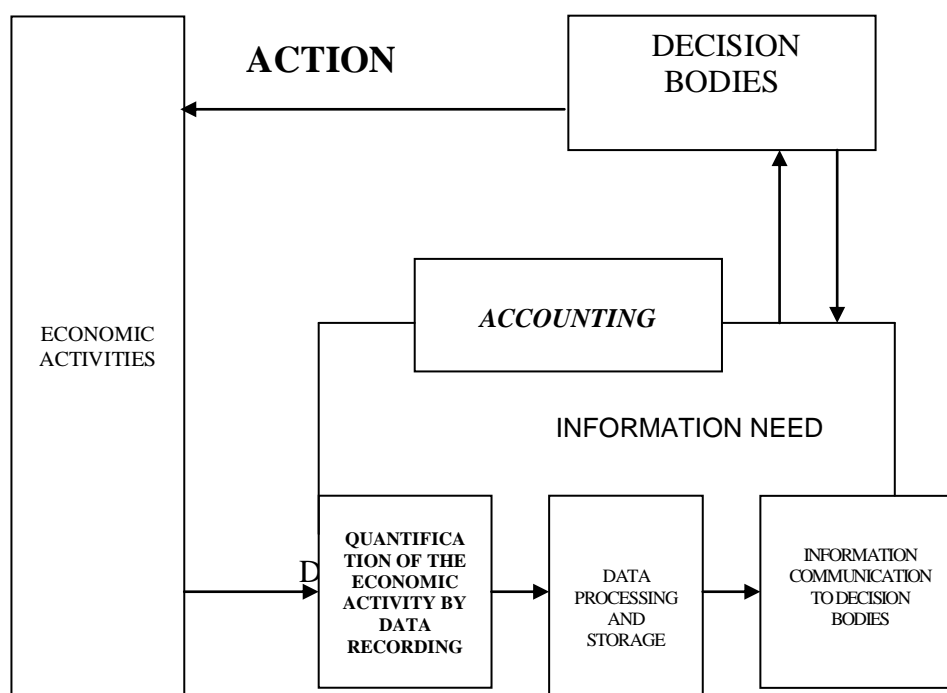
Intelligibility of the financial information is given by its classification, characterization and presentation in a clear and concise way.

The financial information released from within the financial statements is intended for users who have sufficient knowledge of economic affairs and who study and analyze this information with due attention.

5. Accounting information and the decision-making process

Within the information system, the role of accounting is overwhelming in order to substantiate decisions by decision makers. Accounting makes the connection between the economic activities and the decision-makers, as shown in the following Figure 1:

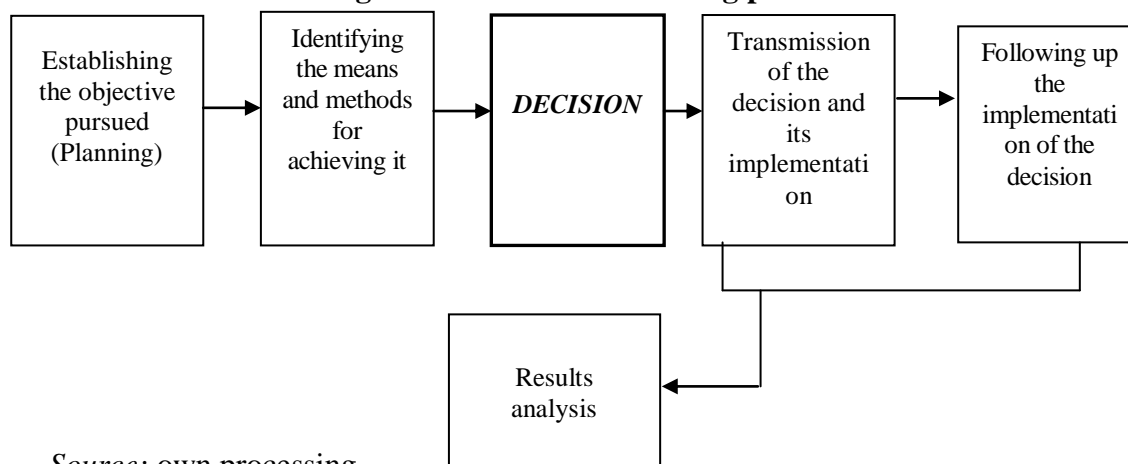
Figure 1. The connection between the economic activities and the decision-makers



Source: Epuran, M., Băbăiță, V. and Imbrescu, C., 2004. *Accounting Theory*. Bucharest: Editura Economică.

In order to substantiate a decision as correctly and efficiently as possible, the decision makers must establish the objective pursued, identify the means and methods for achieving it, choose the alternative considered to be optimal, put into practice and follow its application, as well as analyzing the results. Schematically, the decision-making process can be presented as follows (Figure 2):

Figure 2. The decision-making process



Source: own processing.

The prevalence of the financial-accounting information over any other type of information used in the decision-making process comes from a series of particularities, among which we mention:

- due to its qualitative characteristics, the financial-accounting information has a degree of certainty, relevance and credibility superior to the other information systems;
- the financial-accounting information allows correlations between: expenses, revenues and results; receipts and payments; assets, liabilities and equity;
- the financial-accounting information allows both the global and analytical knowledge of the elements of the entity;
- the financial-accounting information allows the analysis of the degree of liquidity, solvency, liquidity and profitability of an economic entity;
- accounting, through specific processes and methods of calculation, ensures the calculation of production costs, their budgeting, revenues, expenses and financial results;
- the financial-accounting information due to the high degree of certainty, relevance and credibility is the basis of the substantiation of the future economic strategies starting from the results obtained in the current period or in previous periods;
- the financial-accounting information being complete and neutral, records in an integrated and analytical way the assets, liabilities and capitals of the entity in terms of their size, structure, provenance and destination.

6. Organization of the accounting information system

The organization of the accounting information system is based on the way in which the accounting information is constructed and disseminated.

Accounting achieves both the internal representation of the entity and the external representation, which leads to the existence of two components in the accounting information system of the entity (Ionașcu, 1997):

- a component that plays, above all, the image of the company abroad – the financial accounting, considered the “external face” of the entity;
- a component that describes the internal processes of the entity – the management accounting, considered the “internal face” of the company.

The two major systems of organizing the accounting information circuit are known as formal monism or accounting in a single circuit and formal dualism or accounting in two circuits.

The formal monism is specific to the economic-social systems in which the dominant power factor has been imposed without the counterparties exerting an influence and requesting information other than that desired and agreed upon by the main user. The monist system is specific to authoritarian controlled economies and countries with a liberal economy, but marked by the presence of large multinationals.

Formal dualism is specific to the economic-social systems in which the dominant power factor and the counter-powering factors have managed to harmonize their interests and reach a compromise regarding the information needs of the various users categories of the accounting information. Formal dualism implies the existence of the two accounting circuits generically called financial accounting and management accounting.

While financial accounting is intended to meet the accounting information needs of a wide range of users, management accounting is intended to provide information only for the management of the economic entity.

Regardless of how the accounting information system is organized, it is based on observing the principles of the double party:

- the principle of double representation;
- the principle of double registration.

Observing and implementing the two fundamental principles underlying the organization of the accounting information system is achieved through the accounting method. The accounting method uses both accounting-specific procedures and common procedures to other sciences as well. The specific procedures for accounting are represented by: the balance sheet, the accounting account and the balance of the checking the accounts. Among the procedures common to accounting, but also of other sciences, both from the economic field, but also from other fields, there are: documents, inventory, evaluation, calculation, observation, analysis, reasoning, classification, comparison, synthesis etc.

7. Conclusions

Considering the above-mentioned, we can say that when a decision concerns economic issues, accounting provides information for three managerial functions: planning, controlling and assessing.

Due to the high degree of certainty, relevance and credibility, as well as the qualitative characteristics that must be fulfilled, the financial-accounting information is the most important and reliable source of information for the decision-makers in the business world. Essentially, the financial-accounting information helps to substantiate the economic decisions and allows the identification of the means and methods of achieving the objective pursued.

Regardless of how the information-accounting system is organized, it ensures the construction and dissemination of the accounting information in compliance with the principles of the double party.

In order to obtain the information, the accounting method is used both by the procedures specific to the accounting method, as well as by the procedures used by other sciences.

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A LOGICAL APPROACH TO THE CONCEPT OF INSTITUTIONAL RESILIENCE

Diana-Maria DRIGĂ, Ph.D. Student

The School of Advanced Studies of the Romanian Academy (SCOSAAR),
Bucharest, Romania

E-mail: dianadriga@yahoo.com

Abstract: *The paper intends to clarify the concept of institutional resilience and proposes a logical formalization of this concept. In the first part of the paper some clarifications were made regarding the effects of disturbances on the systems and the conceptual family of resilience was proposed. In the next part of the paper, the concept of resilience and the concept of institutional resilience were defined. In order to define the concepts within this paper, a logical approach was proposed by identifying the sufficiency predicates of each concept and performing their logical analysis. The concept of institutional resilience, as a species of the resilience genre, was defined by identifying two additional sufficiency predicates, compared to the general case of the concept of resilience. In the last part of the paper, a logical formalization of the institutional resilience concept was proposed.*

Keywords: *resilience, institutional resilience, disturbances, sufficiency predicates.*

JEL Classification: *P10.*

1. Introduction

In recent years, the concept of resilience has been a concern for many specialists in various fields, many studies being carried out, yet without reaching a consensus regarding the definition of resilience and the establishment of a system of indicators that can be used to measure the degree of resilience of a system.

The term resilience has a long history, although many authors believe that the term was introduced by the ecologist Holling. The resilience comes from the Latin *resilio*, with the meaning of *jumping back*. In the fifteenth century, the concept of resilience was taken over in French (*résiler*), used with the meaning of "withdrawal" or "cancellation" and later on in English (*resile*), used with the meaning of "withdrawal", "return to a previous position" or "renunciation".

This paper proposes to clarify the concept of institutional resilience from a logical perspective. The paper has the following structure: in the first part of the paper, some details are made regarding the effects produced by disturbances on the systems, taking into account both the internal disturbances, generated by the functioning of the systems and the external disturbances, coming from the environment. At the same time, the conceptual family of resilience is proposed. The next part of the paper identifies the sufficiency predicates that are the basis for defining the concept of resilience from a logical perspective, and their logical analysis is performed. In the last part, the concept of institutional resilience is defined. The paper also proposes a logical formalization of institutional resilience and resilience.

In order to define the concepts within this paper, attributes (sufficiency predicates) specific to each concept were identified and their logical analysis was performed (Dinga, E., 2011).

2. The concept of resilience

The concept of resilience was first used in the field of physics, and later on it became widely used, as psychological resilience, biological resilience, economic resilience, social resilience, institutional resilience, financial resilience, political resilience, fiscal resilience, environmental resilience, informational resilience.

In the field of ecology, a first approach to this concept is achieved by MacArthur in 1955, in the paper *"Fluctuations of animal populations and the measure of community*

stability". In this paper, the author refers to the stability and resilience concepts, but does not delimit the two concepts (MacArthur, 1995).

In 1973, the concept of resilience is also addressed by the ecologist Holling. The author considers that resilience is the persistence ability of the systems and their ability to absorb change and disturbance, while still maintaining the same relationships between the populations analyzed or the state variables (Holling, 1973, p.14).

Holling proposes two properties to define the behavior of ecological systems: stability and resilience. In the author's view, stability is the ability of the system to return to a state of equilibrium after being affected by a temporary disturbance. The faster it returns, having a smaller oscillation, the more stable it is. In this definition, stability is the property of the system, and the degree of oscillation around specific states is the result. In terms of resilience, the author believes that this determines the persistence of relationships in a system and is a measure of the system's ability to absorb changes in state variables and driving variables. A system may be very resilient but can present a large oscillation, i.e. low stability, or may have a high degree of stability but low resilience (Holling, 1973, p.17).

Recent studies show that resilience is applicable not only to ecosystems, but also to socio-economic systems. Thus, we mention the following researchers interested in the economic approach to the concept of resilience: the researchers Rose (Rose, 2009) and the researcher Engberg-Pedersen et. al (2008). The concept of resilience is also addressed in the field of behavioral psychology. Researchers Masten (1994) and Kaplan (1999), have the following opinion regarding the resilience of people: resilient people have the capacity for self-renewal and adaptation, while less resilient people degrade and are adversely affected by stressors.

To define the concept of resilience, we considered it necessary to make some clarifications regarding the effects of disturbances on the systems and to propose the conceptual family of resilience.

A system can be exposed to both internal disturbances, generated by its operation, and to external disturbances from the environment. There may be the following situations:

- the system can oppose the intrusion of external disturbances inside it through its
- membrane (the membrane must have certain properties to allow this);
- the system preserves its identity through a certain disturbance treatment procedure;
- the system accepts a predetermined form of change through a certain disturbance treatment procedure;
- the system accepts the change caused by disturbances.

By disturbance treatment we mean:

- avoiding disturbances by taking measures to avoid their impact (in the case of anticipated disturbances), or by avoiding disturbances by ad-hoc reactions (if the disturbances were not anticipated);
- effective treatment of disturbances: a) neutralization of disturbances by measures to counter them; b) reduction of disturbances through repair measures; c) disruption of disturbances by reorientation measures;
- exposure to disturbances in order to gain benefits from the effects produced by these.

To establish the conceptual family of resilience we propose the following characteristics of a system in relation to the effects produced by disturbances:

- the system memorizing capacity of the previous state produced by the disturbance (M);
- accumulability – accumulation of tension for change (A);

- rigidity – resistance to disturbances (R);
- elasticity – return of the system to the initial state after having passed into another state as a result of disturbance effects (E);
- plasticity (P);
- dissipation of the tension for change in the internal structure (D);
- structural reorganization (S);
- punctual alterations of identity (AI).

We next proposed the following composition of the conceptual family of resilience: stationarity, stability, sustainability, robustness, autopoiesis, inertia, homeostasis, antifragility.

Table 1. The conceptual family of resilience

	M	AI	A	R	E	P	D	S
Resilience								
Stationarity								
Stability								
Inertia								
Homeostasis								
Autopoiesis								
Robustness								
Sustainability								
Antifragility								

Source: autor's research

These concepts are defined as follows:

- *stationarity* is the property of a system to maintain constant the value of its defining parameter ;
- *stability* is the ability of a system to maintain the value of its defining parameter within a pre-accepted numerical interval;
- *sustainability* is the property of the system to maintain the value of its defining parameter in predetermined dimensional and temporal intervals, with the possibility to alter the identity in a punctual way;
- *robustness* is the ability of a system to maintain its structure through resistance to external disturbances;
- *autopoiesis* is the ability of the system to restore its initial conditions after the effect of external disturbances, through structural reorganization;
- *inertia* represents the ability of the system to preserve its structure, by integration of external disturbances and dissipation of their effect in its internal structure, accumulating tension for change up to a certain threshold;
- *homeostasis* is the property of a system to integrate external disturbances, dissipating their effects in its internal structure, within limits that allow it to preserve its identity.
- *antifragility* represents the ability of the system to gain more benefits than disadvantages due to external disturbances, having internal structures capable of obtaining these advantages. Antifragile systems are capable of seeking out disturbances and gaining advantages, if possible, not just avoiding, countering or treating disturbances.

Defining the concept of resilience

To define the concept of resilience, we first identified the sufficiency predicates of this concept. We noted with R the concept of resilience and $M(R)$ the set of the sufficiency predicates of resilience. We propose the following predicates of sufficiency for the concept of resilience:

- P_1 : capacity to memorize the state prior to the disturbance;
- P_2 : system elasticity – return of the system to its initial state after it has passed into another state due to the disturbance effects.

Logical analysis of the identified predicates

a) Independence analysis - it will be considered that neither of the two identified predicates is the logical result of the other predicate.

- P_1 and P_2 : P_1 does not result from P_2 and neither P_2 is the logical result of P_1 ;

b) Consistency analysis - it will be shown that the two identified sufficiency predicates are not contradictory.

- P_1 and P_2 : P_1 is not contradictory to P_2 and P_2 is not contradictory to P_1 ;

c) Completeness analysis

Regarding the completeness condition, the simultaneous relevance of the two sufficiency predicates identified for the concept of resilience is considered.

Following the logical analysis of the two identified predicates, it turns out that they fulfill the conditions of independence, consistency and completeness.

The logical expression of resilience has the following form:

$$M(R) = \{P_1, P_2\} \quad (1)$$

Or:

$$(P_1 \wedge P_2) \rightarrow R \quad (2)$$

Where: \wedge - symbol for logical conjunction.

As a result of the aspects presented above, we can define resilience as: *the capacity of a system to preserve its structure following disturbances, due to the presence of the elasticity capacity of the system.*

3. The concept of institutional resilience

The analysis of the resilience of socio-ecological systems largely depends on the institutional factors. In the analysis of resilience, in addition to the size of the shock faced by the system, the structure of the existing institutions plays an important role.

N. Taleb refers to antifragile institutions. The author considers that the current financial system has created a fragile context, and the reaction to combat this fragility is to create anti-fragile institutions, not robust institutions (Taleb, 2012).

Folke and Berkes believe that memory and social values play an important role in institutional resilience. The ability to adapt and self-regulate are also important features of institutional resilience (Folke and Berkes, 1998).

In most studies, the resilience analysis is based on the concept of social-ecological system, modeled as the interaction between the institutional and cultural arrangements of the society on the one hand, and its physical environment on the other hand.

In the academic literature, three components relevant to institutional resilience are proposed: responsiveness, adaptability and avoidance of slippery slopes. In terms of the responsiveness of society, resilience can be understood from the perspective of equilibrium. An ecological social system is resilient if it is able to successfully resist the sudden and unexpected changes of the environment. Researchers also refer to the "absorption capacity" (that is the size of shock that the system can cope with) or "the speed of recovery" from a specific shock (Walker, Holling et al., 2004). Both absorption capacity

and speed of recovery are related to the pre-existing situation, which is conceptualized as a state of equilibrium.

Defining the concept of institutional resilience

The sufficiency predicates identified for resilience will be customized for the institutional resilience concept. Which means that one or more additional sufficiency predicates will be introduced compared to the general case of the concept of resilience. The concept of institutional resilience was noted with RI , the set of sufficiency predicates for institutional resilience with $M(RI)$ and the set of additional sufficiency predicates with $M(PSRI)$.

The following additional sufficiency predicates for institutional resilience have been identified:

- $PSRI_1$: is designed by the cultural subject;
- $PSRI_2$: presents the ability to be transmitted intra-generationally and inter-generationally through the behavior generated by the respective institution or/and by the persistence of the norm that imposes it.

The logical analysis of the identified additional predicates implies the analysis of their independence, consistency and completeness. Neither of the two sufficiency predicates is the logical result of the other sufficiency predicate and at the same time it does not contradict the other predicate of sufficiency. The two additional sufficiency predicates are simultaneously relevant to the concept of institutional resilience.

To define the concept of institutional resilience, we performed the logical analysis of the two sufficiency predicates identified for the resilience concept and of the two additional sufficiency predicates identified for the institutional resilience concept. Thus, we logically analyzed six possible cases (C_4^2) from the perspective of the conditions of independence, consistency and completeness.

Logical analysis of the identified predicates

a) Independence analysis:

- P_1 and P_2 : it was shown in the logical analysis of the sufficiency predicates identified for the concept of resilience;
- P_1 and $PSRI_1$: the ability of the system to memorize the state before the disturbance occurs is not the logical result of the fact that the institution is designed by the cultural subject and neither $PSRI_1$ is the logical result of P_1 ;
- P_1 and $PSRI_2$: P_1 is not the logical result of $PSRI_2$ and neither $PSRI_2$ is the logical result of P_1 ;
- P_2 and $PSRI_1$: P_2 is not the logical result of $PSRI_1$ and neither $PSRI_1$ is the logical result of P_2 ;
- P_2 and $PSRI_2$: P_2 is not the logical result of $PSRI_2$ and neither $PSRI_2$ is the logical result of P_2 ;
- $PSRI_1$ and $PSRI_2$: it was shown in the logical analysis of the additional sufficiency predicates.

b) Consistency analysis:

- P_1 and P_2 : it was shown in the logical analysis of the sufficiency predicates identified for the concept of resilience;
- P_1 and $PSRI_1$: the ability of the system to memorize the state before the disturbance occurs is not contradictory to the fact that the institution is designed by the cultural subject and neither $PSRI_1$ is contradictory to P_1 ;
- P_1 and $PSRI_2$: P_1 is not contradictory to $PSRI_2$ and $PSRI_2$ is not contradictory to P_1 ;
- P_2 and $PSRI_1$: P_2 is not contradictory to $PSRI_1$ and $PSRI_1$ is not contradictory to P_2 ;

- P_2 and $PSRI_2$: P_2 is not contradictory to $PSRI_2$ and neither $PRIS_2$ is contradictory to P_2 ;
- $PSRI_1$ and $PSRI_2$: it was shown in the logical analysis of the additional sufficiency predicates.
- c) Completeness analysis

As regards the condition of completeness, we notice the simultaneous relevance of the four predicates of sufficiency for the concept of institutional resilience. Therefore, completely verifying the predicates identified by some entity gives it the qualification of institutional resilience.

From the formal point of view, the following logical expression of institutional resilience can be written:

$$M(RI) = \{P_1, P_2, PSRI_1, PSRI_2\} \quad (3)$$

Or:

$$(P_1 \wedge P_2 \wedge PSRI_1 \wedge PSRI_2) \rightarrow RI \quad (4)$$

Where: \wedge - symbol for logical conjunction.

As a result of the aspects presented above, we can define the institutional resilience as: *the capacity of a system to preserve its structure following disturbances, due to the presence of its elasticity capacity, the system being designed by the cultural subject and presenting the capacity of intra-generational and inter-generational transmission through the behavior generated by the respective institution or/and by the persistence of the norm that imposes it.*

4. Conclusions

The concept of resilience has been a concern for many specialists in various fields, and comprehensive studies have been carried out to clarify this concept. An important role in the analysis of the resilience of the systems is played by the size of the shock that the system is facing, and also by the structure of the existing institutions. To create resilient systems, resilient institutions are needed.

The main contribution of this paper is defining the concept of institutional resilience from a logical perspective. In order to define this concept it was first necessary to clarify the concept of resilience. To define the two concepts, the sufficiency predicates (two sufficiency predicates for resilience) and the additional sufficiency predicates (two predicates of additional sufficiency for institutional resilience) were identified, and their logical analysis was performed. Another contribution of the paper is the logical formalization of the two concepts. A novelty element of this study is the proposal of the conceptual family of resilience.

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ANALYSIS OF THE SUSTAINABILITY CONCEPT FROM THE LIVING LOGIC SYSTEM PERSPECTIVE

Mihai-Cristian TRANDAFIR, Ph.D. Student

School of Advanced Studies of the Romanian Academy (SCOSAAR), Romania

E-mail: arh.trandafir@gmail.com

Abstract: *Concept with different meanings, depending on the domain in which it is involved, sustainability is represented in the literature as a synergy between society, economy and the environment. The paper addresses the concept of sustainability from a wider perspective of the living logical system whose evolutionary tendency is to preserve the qualitative identity, but not punctually, rigidly, but maintaining its in a "sustainability tunnel", within which it may suffer alterations of punctual identity, but not of "tunnel" identity. In order to clarify the concept of a living logical system, the work presents a logical construction of the system, the poietic system, the self-poietic system, and defines the concept of a auto-poietical societal entity based on the predicates of sufficiency.*

Key words: *sustainability, auto-poietic societal entity, living logic system, predicates of sufficiency*

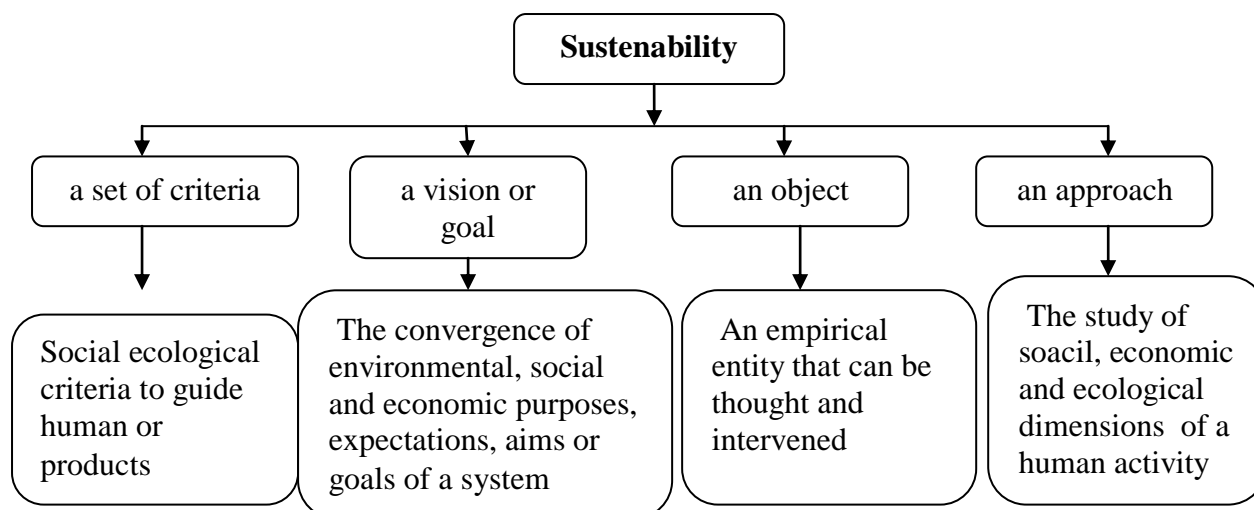
JEL Classification: *A10, O10.*

1. Introduction

Global concept, with local significance (Dinga, 2009, p. 43), the concept of sustainability has been shaped throughout its evolution, starting from 1972, under the impact of the different currents of intellectual and political thinking (Kidd, 1992, p.3), which gave it different meanings, sometimes contradictory, depending on the area in which it was used.

In the political discourse, of the specialists of the different fields, as well as in the institutional practice, the stability is asserted, most often, in a multidimensional aspect, as a synergy between society, economy and environment. (Rosen, 2018) and is interpreted under different meanings (Salas - Zapata and Ortiz - Muñoz, 2018): either with reference to the integration of a set of environmental criteria or social qualities in human actions, or as an objective of humanity, or conceived as an entity that exists and can be represented and studied, or as a reference to the study of the social, economic and environmental variables of a reference system (Figure 1).

Figure 1. Acceptance of the concept of stability



Source: Adaptation after Salas-Zapata & Ortiz-Muñoz, 2018.

Beyond these "civil" meanings, applicable to particular situations, under which the concept of sustainability is addressed in the current literature, (Dinga & al, 2011), academic research changes the paradigm of systems modeling, focusing its scientific approaches towards theoretical, abstract modeling. of systems, conducive to the fundamental research approach.

In this context, the paper addresses the concept of sustainability from a broader perspective, of the theoretical approach, according to which sustainability is a paradigmatic manifestation of progress in knowledge and action, of man and society. (Dinga, 2009, p. 44).

Sustainability is analyzed through the prism of clear differentiation from sustainability: while sustainability refers to living logic systems, "a new and probably revolutionary concept" of an ecosystem type, of different economic policies, sustainability refers to non-living logical systems, such as there are stones, buildings, etc. (Dinga, 2011).

The construction of a living logical system, which can theoretically support the concept of sustainability, involves the conceptual clarification and logical definition of five concepts: the concepts of system and poietic system, auto-poietic system, societal entity and auto-poietical societal entity, identifying the distinctive characteristics and the predicates of sufficiency of each.

2. The concept of system

The concept of system is used mainly in different fields of science and technology, of the economy, in nature and in society with definitions adapted to the context in which it is integrated, of which we mention by way of example:

- a collection of objects arranged in an orderly form, which in a certain sense is directed to a purpose or a target (Dolga, 2010);
- a set organized by doctrines, ideas or principles usually meant to explain the arrangement or functioning of a systematic whole (Merriam-Webster Dictionary);
- any set organized by resources and procedures in interaction or interdependence, real or abstract, for performing a set of specific functions (Dolga, 2010);
- a set of connected things or devices that work together (Cambridge Dictionary).

For the purposes of our paper, we used the definition of the system concept approached in theoretical research, according to which the system is conceived as a cut from reality (either objective or subjective or a mixture of the two), which verifies the following predicates of sufficiency (Dinga, 2009, pp.373-374), which we represented schematically in Figure 2:

- A set of component elements, discernible between them: (E)
- A membrane that separates, in a breakable manner, the environmental components: (M)
- A set of connections between the components (intra-membranatic): (CI)

In terms of logical aspect, the structure of a system is the conjunction of two predicates of sufficiency of the system:

$$S = (E) \wedge (CI), \text{ where } S \text{ is the structure} \quad (1)$$

and is defined as the totality of the component elements of a system and the connections between them.

Once a system is born (either real or cognitive, fictional), it generates a predicate of necessity:

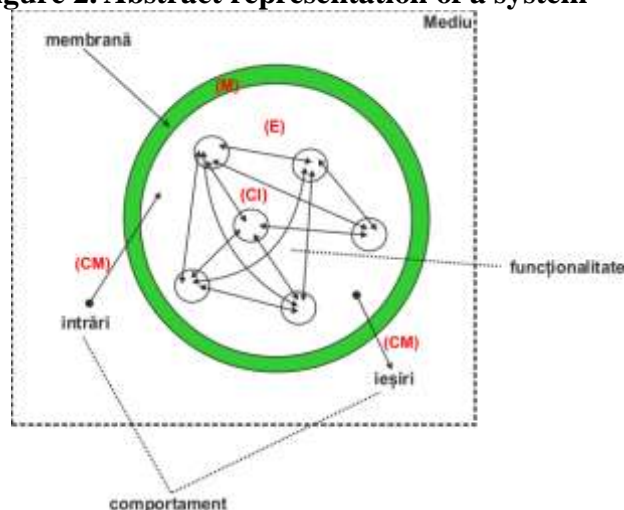
- The set of connections between the system components and its environment (CM)

In terms of logical aspect, the new predicate of necessity is thus generated:

$$[(E) \wedge (CI)] \rightarrow (CM)$$

(2)

Figure 2. Abstract representation of a system



Source: Dinga, E., 2018. *Growth, development and economic sustainability*. Bucharest: Romanian Academy Publishing House, p.56.

The structure of the system necessarily generates the external connections of the system. External connections are called system *functions*, because they are observable from the perspective of the cognitive subject as exercising certain connections of interest for that subject. It can be stated, therefore, that the structure generates the function.

3. Poietic system, auto-poietic system

3.1. Poietic system

The configuration of a poietic system implies the definition of the concept of poieticity (based on which the concept of self-poieticity and, respectively, auto-poietic system will be defined) starting from its distinctive characteristics:

- Poieticity is a property (either of a system, or of a process, or of a phenomenon); given the delimitation of properties in (a) simple properties (features that do not need to be defined, understood or operationalized by other, more primitive features) and (b) compound properties (those properties that need to be defined, understood or operationalized, of more primitive properties), we state that the property of poieticity is a compound property.

- The primitive properties that underlie the concept or property of poieticity, which we consider and predicated by sufficiency for defining the concept (property) of poieticity (P) are the following:

- (P1) structuring potential: this is a predicate of sufficiency that refers to the capacity of the entity concerned to create, modify, preserve, update etc. structures, either with reference to itself or to its environment.

- (P2) integrative potential: this is a predicate of sufficiency that refers to the capacity (potential) of the entity concerned to capture influences from the environment (or even from within the entity itself), influences that integrate either in its structure or in its functionality.

By noting the poieticity with P , we have:

$$P = (P1) \wedge (P2)$$

(3)

A poietic system (SP) is the system that verifies the two predicates of sufficiency of the poieticity and can be logically described in this way:

$$SP = (S) \wedge (P) = (E) \wedge (M) \wedge (CI) \wedge (CM) \wedge (P1) \wedge (P2)$$

(4)

3.2. Auto-poietic system

Starting from the definition of poieticity, we can define the concept (property) of auto-poietics (AP), which requires two additional predicates of sufficiency::

- (AP1) *self-reflexive capacity*: refers to the capacity (potential) of an entity to observe, record (memorize) and evaluate its state of identity with itself.

- (AP2) *conservative capacity*: refers to the capacity (potential) of an entity to generate actions - impulses - to deal with the impacts that have occurred from the perspective of maintaining the identity of that entity.

Noting the property of auto-poieticity with AP, we have:

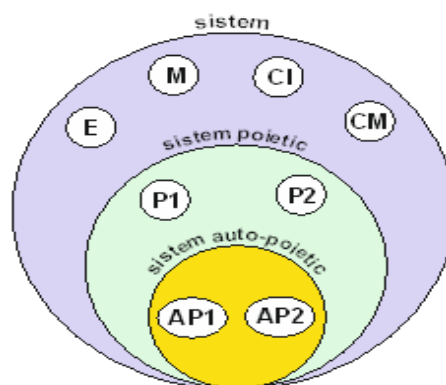
$$AP = (P) \wedge (AP1) \wedge (AP2) = (P1) \wedge (P2) \wedge (AP1) \wedge (AP2) \quad (5)$$

An auto-poietic system (SAP) can be logically described as follows:

$$SAP = (SP) \wedge (AP1) \wedge (AP2) = (E) \wedge (M) \wedge (CI) \wedge (CM) \wedge (P1) \wedge (P2) \wedge (AP1) \wedge (AP2) \quad (6)$$

Synthesizing, the concepts, poietic system - auto-poietic system are represented graphically, in logical sequence, in figure 3.

Figura 3. The logical construction of: system – poietic system – auto-poietic system



Source: the author

Auto-poieticity generates, once established, a series of new predicates of necessity, respectively:

- (APN1) The benign accumulation of disturbances: it is a predicate that allows the storage (storage) of influences coming from the environment of the entity or from within it. The benign characterization of the accumulation of these influences aims to indicate that this accumulation does not produce immediate effects on the entity although, over a certain threshold of this accumulation, effects of change can be triggered, including at the depth level (ie at the structural level);
- (APN2) The entropic dissipativity: is a predicate that allows (or requires) the entity (system) in question the ability to maintain or decrease its entropy. This means the ability of the entity to extract non-entropy from the environment (including from other entities / systems with which it interacts) and to pour entropy into the environment (or into other entities / systems, as appropriate).

The problem of measuring entropy in other entities/systems than in natural ones - where entropy has its significance from thermodynamics - will not be examined in this study.

By integrating these new predicates of necessity into the definition of the auto-poietic system, we can complete the logical definition of the auto-poietic system, thus:

$$SAP = (E) \wedge (M) \wedge (CI) \wedge (CM) \wedge (P1) \wedge (P2) \wedge (AP1) \wedge (AP2) \wedge (APN1) \wedge (APN2)$$

(7)

4. Societal entity

The conceptual delimitation of the societal entity implies the clarification of the concepts of *social* and *societal*.

4.1. The concept of social

The property of sociality is given by a more primitive property, of community, by which we understand the property that the component elements of an entity to develop a limited number of functions that are common to all elements.

The concept of community involves defining attributes: a) spatial coexistence; b) power hierarchy; c) non-void intersection of individual / group interests; d) non-void intersection of the resources usable / used by each individual / group.

Therefore, the sufficiency predicate must be separated into two components:

- CI_p - the multitude of inter-component connections with a "private" character, ie autonomous
- CI_c - the set of "public", ie non-autonomous, inter-component connections, which involve all the components of the system

As a consequence, the property of social (or social) is manifested in all cases of entities (systems) endowed with subjects (cultural or non-cultural) in which there are connections of the CI_c class, such as bees, ants, humans, some species of animals (lions, wolves)

A definition of the social could thus be formulated:

An entity (system) has *social* characteristic if the subset of CI_c is not void.

4.2. The concept of societal

According to systems theory, the set of connections between the component elements of a system generates what is called the functionality of that system.

Sociality (the attribute of social) refers only to the set of CI (more precisely, to the subset of CI_c , where

$$CI = (CI_c) \cup (CI_p) \quad 8)$$

The connections between the component elements of the system and the environment of that system generates what is called the behavior of the system.

We also divide the CM set into two subsets:

- CM_p , by which we distinguish the subset of the "private" (autonomous) connections between the component elements of the system (entity) and the environment of that system (entities), respectively
- CM_c , by which we distinguish the subset of "public" connections (common, non-autonomous) between the component elements of the system (entity) and the environment of that system

$$CM = (CM_c) \cup (CM_p) \quad (9)$$

The logical features of the four subsets and the correlations between them are:

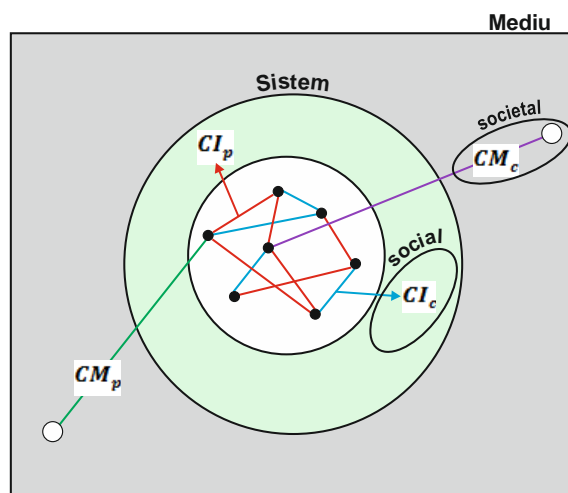
- $CI = (CI_c) \cup (CI_p)$
- $CM = (CM_c) \cup (CM_p)$
- $(CI_c) \cap (CI_p) = \emptyset$
- $(CM_c) \cap (CM_p) = \emptyset$
- $CI_c \cap CM_c \neq CI_c$
- $CI_c \cap CM_c \neq CM_c$
- $CI_p \cap CM_p \neq CI_p$
- $CI_p \cap CM_p \neq CM_p$
- $CI_c \cap CM_c \neq \emptyset$
- $CI_p \cap CM_p \neq \emptyset$

A definition of *societal* could be formulated as follows:

An entity (system) has *societal* characteristic if the subset of CM_c is not void0

It is necessary to mention the fact that an entity cannot be societal if it is not a social entity first, thus signifying the impossibility of the existence of a social entity that is not societal, (situation depicted synoptic in figure 4), the distinction between social and societal being rather methodological in character.

Figure 4. The logical construction of the concepts of social, respectively societal



Source: graphic construction of the author, based on his own research

The concepts of social entity (ES) and societal entity (EST) - a social entity that has the non-CMc crowd - can be formalized as follows:

$$ES = (S) \wedge (CI_c) \quad (10)$$

$$EST = (ES) \wedge (CM_c) \quad (11)$$

5. The sustainability of living logic systems

Defining the concept of sustainability from the perspective of living logical systems, implies the prior definition of the autopoietic social entity (ESTAP) and of living logical systems (SLV).

5.1. Autopoietic social entity

In order to obtain the logical formula of the autopoietic social entity (ESTAP), we will add, in a conjunctive way, the sufficiency predicates of self-poeticity:

$$ESTAP = (EST) \wedge (P1) \wedge (P2) \wedge (AP1) \wedge (AP2) \wedge (APN1) \wedge (APN2)$$

(12)

The analytical development of the formula leads to:

$$\begin{aligned} ESTAP &= (EST) \wedge (P1) \wedge (P2) \wedge (AP1) \wedge (AP2) \wedge (APN1) \wedge (APN2) = \\ &= (ES) \wedge (CM_c) \wedge (P1) \wedge (P2) \wedge (AP1) \wedge (AP2) \wedge (APN1) \wedge (APN2) = \\ &= (S) \wedge (CI_c) \wedge (CM_c) \wedge (P1) \wedge (P2) \wedge (AP1) \wedge (AP2) \wedge (APN1) \wedge (APN2) = \\ &= \underline{(E) \wedge (M) \wedge (CI) \wedge (CM) \wedge (CI_c) \wedge (CM_c) \wedge (P1) \wedge (P2) \wedge (AP1) \wedge (AP2) \wedge (APN1) \wedge (APN2)} \end{aligned}$$

5.2. The concept of living logical systems

The living logical system (SLV) is that societal entity that verifies two more predicates of sufficiency:

- (SLV1) nonlinearity in operation: this predicate requires that the equations for describing SLV operation are nonlinear,
- SLV 2) invariance of total complicability: this predicate requires that the logical sum between the degree of internal complicability (g_{CI}) and the degree of external complicity (g_{CE}) be invariant (constant). From a formal point of view we will write:

$$d(g_{CI}) + d(g_{CE}) = 0 \quad (14)$$

The logical formula for defining the living logic system will be as follows:

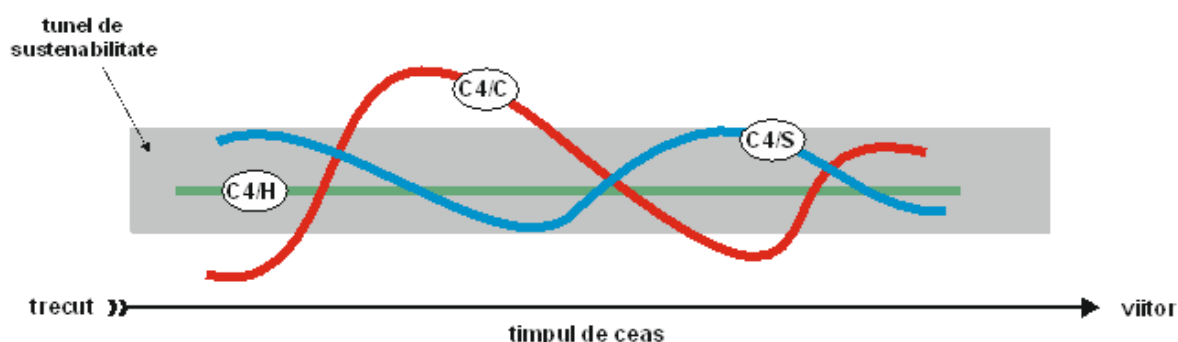
$$SLV = (ESTAP) \wedge (SLV1) \wedge (SLV2) \quad \text{where :} \quad (15)$$

$$ESTAP = (EST) \wedge (P1) \wedge (P2) \wedge (AP1) \wedge (AP2) \wedge (APN1) \wedge (APN2) = \\ = \underline{(E) \wedge (M) \wedge (CI) \wedge (CM) \wedge (CI_e) \wedge (CM_e) \wedge (P1) \wedge (P2) \wedge (AP1) \wedge (AP2) \wedge (APN1) \wedge (APN2)}$$

The clasiffication criterion of ESTAP, regarding the evolutionary direction of ESTAP, captures the general tendency (or specific, as the case may be), usually in the medium or long term of the changes that ESTAP manifests (or accepts, as the case may be), and allows us to identification of the following ESTAP classes:

- (**C4/H**) *ESTAP homeostasis*: characterize those ESTAPs whose evolutionary tendency (direction) is to preserve (preserve) punctually their qualitative identity, to remain identical with themselves. These ESTAPs are characterized by rigidity;
- (**C4/C**) *ESTAP cyclical*: characterizes those ESTAPs whose evolutionary tendency (direction) is to alter, alternatively (periodically or periodically) the qualitative identity. These ESTAPs show a high degree of flexibility and reversibility;
- (**C4/S**) *ESTAP sustainable*: characterizes those ESTAP whose evolutionary tendency (direction) is to preserve (preserve) its qualitative identity, but not in a punctual, rigid way, but by maintaining it in a "sustainability tunnel", within which it can suffer alterations of the punctual identity, but not of the "tunnel" identity.

Figure 5. The ESTAP sustainability tunnel, classified according to the criterion regarding the evolutionary direction



Source: the author

5.3. Sustainable living logic system

Sustainability is "that characteristic of a process (phenomenon, system) of maintaining on the desirable trajectory, in a predetermined or acceptable "band", an indefinite period of time and on a global space of accessibility" (Dinga, 2009, p.46).

Dinga (2009, p.46) considers that a number of ascertainments are needed:

- Sustainability does not necessarily constitute a "hidden" feature of processes (systems), which may be unobservable or instrumentally inaccessible to the observer or the knowledgeable or actionable subject, in the sense of their uncontrollability, but is a possibility of these processes (systems) to be governable from the perspective of maintaining the mentioned trajectory;
- Sustainability should not be seen as simply maintaining stationarity; a sustainable process may also have targets that induce increases (eg GDP/capita) or decreases (eg inflation or unemployment rate), the essential condition being to stay in the tunnel;
- A certain "energy" balance analysis is possible, also in the case of sustainability;
- Sustainability can no longer subsist, (and often is not founded either) by itself, and, under the presence of dissipative processes (systems), is being necessary that it be ensured by energy exchange with the environment of the process (system) concerned, which includes information, currency, formal aspects, etc.
- From a philosophical point of view, the sustainability of the processes cannot be separated from the sustainability of the environment in which the processes take place; ensuring the environmental sustainability of an economic process would be sufficient so that the sustainability of the process is no longer objectively threatened.

Summarizing, sustainability must be understood as that property of a system to be replicated indefinitely, with a certain margin of invariance of the conditions of existence and functioning of that system, property of indefinite replicability of a system in those objective and subjective conditionalities that are accepted as desirable at the level of the system in question, conditionalities that, however, cannot and should not be considered invariant, but only desirable (acceptable, feasible, normed). (Dinga, 2019)

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THE ANALYSIS OF BANK PERFORMANCE INDICATORS

Klejda GABESHI, Ph.D. Student

Doctoral School of Economic Studies, University of Craiova, Romania
Ass/Lecturer, Logos University, Faculty of Economics, Department of Finance and Accounting,
Tirana, Albania

E-mail: klea.gabeshi@gmail.com

Abstract: *Banking performance is a reflection of how banks work, taking into account the environment in which they operate. The purpose of this article is to carry out a qualitative analysis of banking performance indicators, focusing on studying the efficiency of banking activity and banking productivity as determinants of performance. In order to understand the need and importance of evaluating the performance of the banking sector, firstly is elucidated the position of the sector in the structure of the financial system and the role it plays in its stability and economic development. The most important part of the paper emphasizes the identification of the factors that affect the efficiency and bank productivity. To determine the performance of the banking sector, micro and macroeconomic factors must be examined. Among the "micro" environmental factors in the analysis are considered the bank specific factors. As factors of the "macro" environment are all those factors that are not dependent on or determined by the bank's directors. "Efficiency" is different from "productivity", but it is related to it, and the two indicators together are essential for assessing the state of an economy in order to take appropriate measures to improve the situation and project future goals.*

Keywords: *Banking Performance, Banking Sector, Efficiency, Productivity.*

JEL Classification: *G21.*

1. Introduction

Being the principle pillar of the national financial system, the banking sector has a particular importance in the economy. Banking performance is a reflection of how banks work, taking into account the environment in which they operate. The mission of a performant banking system is to allocate the capital exclusively in profitable projects. To succeed, banks must be able to determine which projects are profitable and which are not. If they do this correctly, then the economy has all the chances to work properly.

The purpose of this article is to carry out a qualitative analysis of banking performance indicators, focusing on studying the efficiency of banking activity and banking productivity as determinants of performance.

In order to understand the need and importance of evaluating the performance of the banking sector, firstly is elucidated the position of the sector in the structure of the financial system and the role it plays in its stability and economic development. Banks, due to their quality of main intermediary in the savings-investments relationship, a decisive relationship for the economic growth, represent a special category of financial institutions, which provide liquidity and payment services, form a way of transmitting monetary policy and exercise financial discipline on borrowers. Banks are subject to a higher degree of regulation and supervision comparing with other institutions in the economy. In the case of emerging countries, which have less complex financial systems, banks play an even more important role than in developed economies, as they are the main institutions that produce the information needed to carry out financial intermediation. The degree to which a banking system supports the economic development of a country depends to a large extent on the state of its "health"; the weaknesses of the banking sector can compromise its fundamental function as a financial intermediary, affect the effectiveness of the monetary policy set by the central bank and generate significant costs related to bank laundering. A healthy banking system promotes development and guarantees long-term sustainability of the economy.

The most important part of the paper emphasizes the identification of the factors that affect the efficiency and bank productivity. To determine the performance of the banking

sector, are studied the internal and external factors (microeconomic and macroeconomic factors) that affect the profitability of all commercial banks. Among the "micro" environmental factors in the analysis are considered the bank specific factors. As factors of the "macro" environment are all those factors that are not dependent on or determined by the bank's directors. "Efficiency" is different from "productivity", but it is related to it, and the two indicators together are essential for assessing the state of an economy in order to take appropriate measures to improve the situation and project future goals.

Continuous monitoring and measurement of the performance indicators of banking activity is very important in identifying the problems and finding ways of solving them.

2. Banking Sector Performance Analysis

Rengasamy (2012) defines banking performance "... a mirrored image of how the bank has used its resources to achieve its objectives". The performance of banking activity as a term means the choice of a collection of indicators that reflect the present situation and also the size of the bank's capacity to attain its intended objective. Banking performance is a reflection of the way banks operate, taking under consideration the environment in which they operate. More specifically, it reflects the quality of the bank's management and stakeholder behavior, the bank's competitive strategies, efficiency and risk management capacity.

Identifying the specific banking factors that influenced the measured performance indicators would help defining objectives that can be improved for each examined bank, such as: capital adequacy level, liquidity, quality of profitable assets as a major source of income, bank income, efficiency interest, operating expenses, income as an indicator of the diversity of banking activity, etc. Part of the analysis of banks' performance as financial intermediaries should be the collection of information and data from formal sources or not, to help both depositors and investors achieve the desired goals. They themselves should provide information about their lending activity within the economy, as they are the main source of its financing in the absence of a developed capital market. Measuring the performance indicators of the banking activity was considered a difficult process due to the nature of both the services and the products it offers, being immaterial.

In order to determine the performance of the banking sector, micro and macroeconomic factors need to be examined. According to Raphael G. (2013), "for an analysis to be valid it should take into account both micro and macro environments". Among the "micro" environmental factors in the analysis are considered the specific indicators of the industry and the individual banks, the specific banking factors. As factors of the "macro" environment are all those factors that are not dependent on or determined by the bank's directors. The macroeconomic factors that determine the performance of the banking sector are: growth, gross domestic product, inflation and others related to them, used by many researchers to measure and analyze efficiency and productivity indicators. Specific banking factors include a series of indicators measured by financial ratios that reflect: liquidity, profitability, efficiency, portfolio quality, capital adequacy and others. Among the factors of industry, market structure we can mention: concentration, competition, etc. Other determinants of performance indicators are related to the structure of the bank such as ownership, origin, longevity of the activity, etc.

Referring to the empirical analyses, there are numerous studies evaluating the performance of the banking sector in terms of productivity by measuring the index of the change of the total productivity factor (TFPCH-Total factor productivity change) of the individual banks in the developed and developing countries. Munteanu, Brezeanu and Badea, (2013) examined the performances of the banking sector in Romania for the period '06 -'11 in terms of modifying the total productivity factor measured with MPIDEA. 19

operating banks in the sector were considered for the analysis during the analyzed period. The selection of the variables was based on the approach that shapes the bank's "intermediary" function in the financial system and in the economy. The empirical results did not show the consistency of changes in (TFPCH) for the period studied. The results recorded a higher value (TFPCH) of large and small banks compared to medium-sized ones. The source of growth of large banks has proven to be the efficiency of the scale, while in medium banks the pure efficiency of the management.

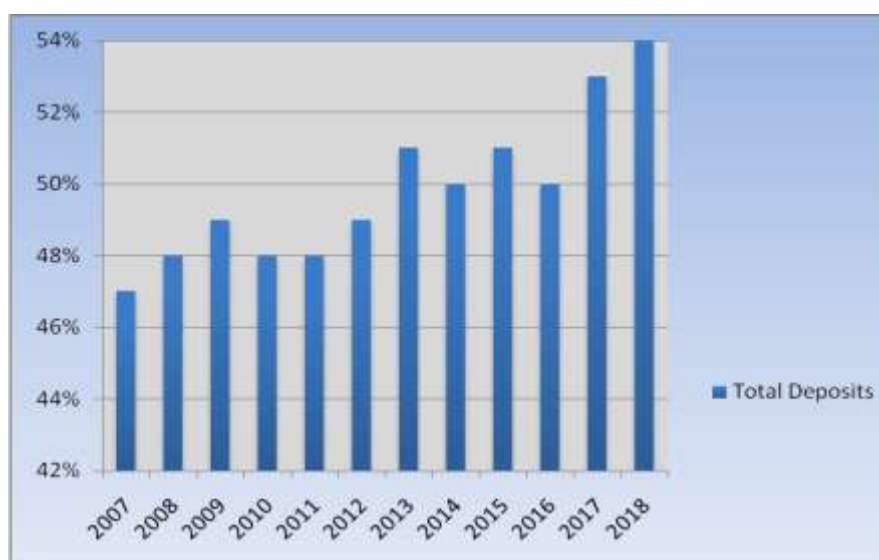
Andries, (2012) analyzed the efficiency and productivity of the Bulgarian banking sector / 21 banks, the Czech Republic / 9 banks, Poland / 23 banks, Romania / 23 banks, Slovakia / 10 banks, Slovenia / 13 banks and Hungary / 13 banks for the respective period 2004-2008. To analyze the performance indicators, the researchers used the non-parametric DEA method, the BCC and CCR models, the parametric SFA method and the non-parametric MPI method. The results of the changes in (TFPCH) of the examined banks showed an increasing trend, thus a progress in the studied period.

The economies of the Western Balkan countries are among the most affected by the effects of recent recessions strongly influenced by the evolution of the region's economies. The slow recovery of the euro area economies represents a risk for the world economies. The almost unmistakable rate of economic growth leads to a drop in demand followed by inflation to deflation. The risks borne by the world economy that are easily transmitted to the economies of the region are: market fluctuations, geographical and political tensions, low rates of economic growth in developed countries and decline in emerging countries. In such an economic environment, the analysis of the financial stability of the region is of particular importance. The countries of the Western Balkans have some common features: the history of socio-economic development, the transformations that have taken place, the reforms undertaken, liberalization, restructuring and the path to development. The structure of their financial system is mainly based on the banking sector, and capital markets are underdeveloped or inactive as in the case of Albania. Another common feature that makes them even more exposed to financial instability is that most banks are owned by the largest banks operating in European countries. Meanwhile, the economies and banking sectors of their "mother" countries are having problems and their economies are shrinking. According to PFS (2015), the most exposed among the countries of the Western Balkans to foreign capital are Montenegro, Albania and Macedonia. All these economies have been directly or indirectly affected by the crisis of recent years. The economies of these countries are small, but all have the objective of joining the European Union, despite the different levels of development.

European banks have continued building a solid capital position and strengthening their balance sheets. The recapitalisation effort that European banks have created following the 2008 financial crisis makes the European banking sector more resilient and robust. In Fig.1. are shown the deposits in EU banks as a share of total banking assets. I have processed the subsequent chart using data from EBF. The share of deposit liabilities over total assets increased in 2018 from 53.4% to 54.2%, in line with the rising trend since 2007 (47.3%) that reveals the shift towards bigger reliance on deposits as a supply of funding.

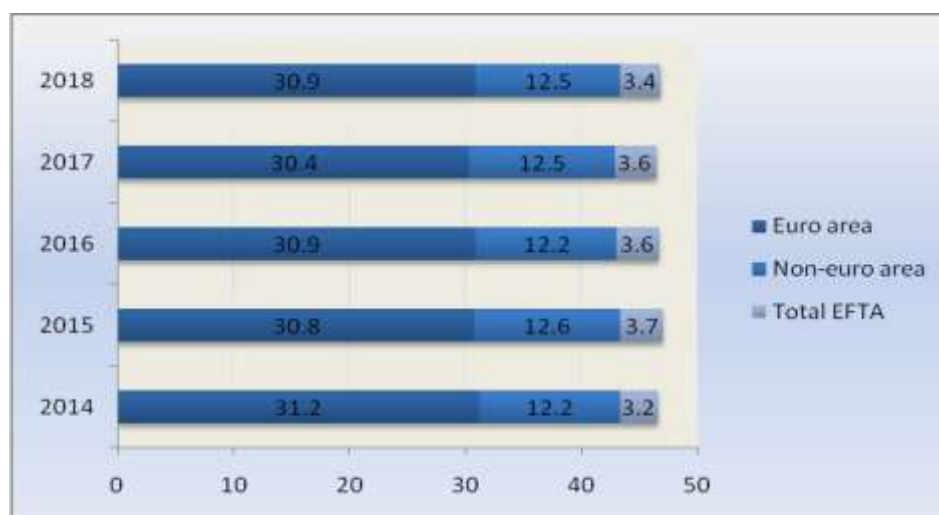
According to the EBF report (2019), the country breakdown for total deposits shows that domestic deposits were equivalent to less than half of the assets in Denmark, Ireland, Greece, Sweden, Finland, France, UK, Luxembourg, Italy, Malta and the Netherlands. The figures still mirror, in part, different banking models, for example the well-developed covered bond markets in Scandinavia. Meanwhile, countries with the largest shares of deposits funding the banking sector's assets were Bulgaria, Croatia, Estonia, Slovenia, Slovakia, Lithuania, Poland and Romania all of which had deposits equivalent to 60% or more of assets.

Figure 1. Deposits in EU banks as a share of total banking assets



The amount of total assets held by EU banks expanded in 2018 after few years of consecutive contraction, registering a value of €43.35 trillion (€30.9 billion in euro area and €12.5 billion in non-euro area), as shown in Fig.2. This increase came basically from euro in the total assets in the euro area countries (1.6%). Considering the country breakdown, the country with the strongest boost in absolute terms was Finland with €176 billion (39.1%). Among the four largest European countries only France registered a substantial positive result in their stock of assets which increased by 4.2%, Italy and Spain showed a reduction of 1.3% and 2.9% respectively (EBF 2019). The countries with the most significant reductions in their stocks of assets were Cyprus (-13.1%) and Latvia (-19.5%).

Fig. nr. 2. Total Assets in EU banks (€ trillions)



2.1. Analysis of bank productivity and its determinants

The productivity of the banking sector refers to the efficiency with which the bank transforms its factors of production (inputs) into services (outputs). More accurately, it reflects the quality of bank's management and stakeholder's behavior, bank's competitive strategies, efficiency and risk management capability. The determinants of the bank

profitability have attracted the interest of the academic research, as well as the interest of the financial markets and the bank supervisors.

The researchers mainly used two indicators to determine the bank's profitability: ROA (return on assets) and ROE (return on equity). The performance of the banking system is a topic that has attracted a lot of attention in recent years around the world. But it is worth noting that most studies have been conducted for the developed countries and only a few of them have been conducted for the developing countries.

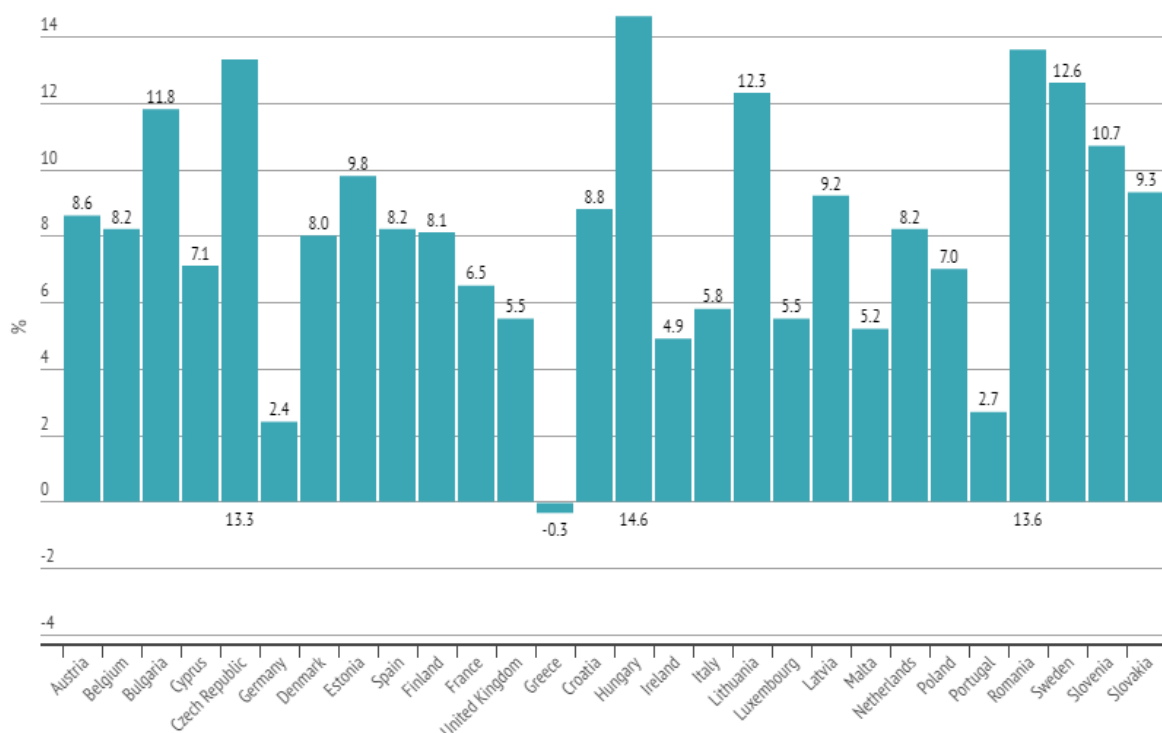
Profitability reflects a situation where earnings generated over a given period exceed expenditures incurred during the identical interval with the only purpose of generating income (Sanni 2009). Molyneux and Thornton (1992) were the first to explore the determinants of bank profitability in a number of countries. They collected data from 18 European countries during 1986-1989 and their results showed a significant positive relationship between return on equity and interest rates and also the banking concentration in each country.

Staikouras and Wood, (2003), analyzed the determinants of bank profitability in 685 European banks, using the variables of credit risk, capital adequacy, interest rate, operational efficiency, bank size, GDP growth rate and gross per capita income for each European country, resulting in a positive link between ROA with capital adequacy and bank size, while credit risk was negatively related to the bank's profitability. Athanasoglou et al., (2005) investigated the Greek banks' profitability between 1985 and 2001 and concluded that credit risk and operating expenses had a negative impact on profitability, while inflation was positively related to financial performance. In (2008), the same authors evaluated the profitability behavior of the Southeast European banking sector over the period 1998-2002. The empirical results showed that the effect of market concentration was positive, while the results related to the macroeconomic variables were mixed.

Deger and Adem (2011) studied the bank specific and macroeconomic determinants of banks' profitability in Turkey over the 2002-2010 period. Banks' profitability was measured by return on assets (ROA) and return on equity (ROE) as a function of bank specific and macroeconomic factors. The results showed that bank size had a positive and statistically significant impact on banks' profitability. However, the size of the loan portfolio had a statistically significant negative impact on banks' profitability. With regard to macroeconomic variables, only real interest rates impacted the banks' performance positively.

The main objective of the study I conducted in (2018) was to identify internal and external factors (bank-specific and macroeconomic factors) that affect the profitability of all commercial banks operating in Albania, through an appropriate empirical analysis. The econometric model used was that of multiple linear regression where, as a dependent variable used as a proxy for banking performance, I choosed the ROE ratio and as independent variables a number of macroeconomic indicators and indicators of assets and liabilities of the Albanian banking system are chosen. The results of the econometric model showed that there is a statistically significant direct link between ROE as a determinant of the bank's profitability and factors such as bank size and inflation rate. On the other hand, the results of the econometric model showed that there is a statistically significant indirect correlation between the ROE level and the indicators of the non-performing loans ratio and the loan-to-deposit ratio.

Figure 3. Return on equity by country



Source: <https://www.ebf.eu>

With the ECB maintaining its ultra-low interest rates, profitability remains a key challenge facing European banks. The return on equity (ROE), a key indicator to assess the bank sector's attractiveness for investors has been slowly recovering. As seen from Fig.3., all countries but Greece have a positive ROE with seven countries having a double-digit ROE led by Hungary (14.6%), Romania (13.6%) and Czech Republic (13.3%). Only Greece registered a negative result, compared to three countries in 2017, though only by a very small margin -0.3%. The difference between the highest (Hungary) and lowest (Greece) ROE was 14 percentage points in 2018, very far from the 101.6 recorded in 2013 (11.4% in Czech Republic and -90.2% in Slovenia).

2.2. Analysis and evaluation of the efficiency of the banking activity as a performance indicator

Efficiency can be understood as a degree of use of resources to achieve the proposed objectives. Increased efficiency reflects better use of existing resources. This is one of the reasons for its study and measurement. According to Avkiran (2013) "the efficient functioning of any organization in an economy is crucial to maintaining its level of well-being". This is a second reason for studying and evaluating efficiency, being directly related to achieving the ultimate goal of any organization, achieving profit and improving the well-being of society accordingly. The most general definition of efficiency, referred to by modern economic theory, is made by Vilfredo-Pareto, otherwise called "Pareto's Optimum", which is conceived as: the maximum well-being defined as a position (in the economy), whence it is impossible to increase your well-being through production or exchange, without damaging or aggravating one's well-being. Jindal, (2014) argues more broadly the need to measure the efficiency of the banking sector and says that it is directly related to the productivity of the economy. The efficiency of a bank is its ability to transform labor, capital, technology into financial services and banking products to better serve its customers.

When measuring banks' efficiency is recommended, firstly to determine the type of relative efficiency to be assessed: technique, distribution, costs, profit or revenue, secondly to specify the method to be used, parametric, non-parametric or a combination of both and thirdly to identify the factors that influence it. Factors affecting the efficiency of the banking sector are grouped into: a) factors determined by the specific banking activity and their structure; b) macroeconomic factors that affect the evolution and performance of banks; c) market structure factors; d) regulatory factors; e) other factors such as crises, government interventions, quality of institutions, etc. Some authors used as determinants of the efficiency, capital and adequacy, profit, etc., while as factors of structure, the size of banks determined by total assets, whereas others according to others the macroeconomic factors that affect efficiency are inflation, GDP, GDP per capita, GDP growth rate, etc. Most of the studies measure the technical efficiency relative with the non-parametric DEA method (data enveloping analysis).

Chortareas, Girardone and Ventouri (2012) examined 5227 banks operating in 22 European Union countries, developed and developing such as Austria, Denmark, Germany, France, United Kingdom, Czech Republic, Estonia, Lithuania, Latvia, etc., in the period 2000-2008 using the DEA method. Based on the empirical findings, the regulatory and supervisory system was closely linked to efficiency, and the indicators varied depending on the type of rules applied. Supervision of capital adequacy had a positive effect on efficiency, while restrictions on banking had a negative impact. Another important conclusion of the study was that "large" banks operating in a less concentrated economic environment and a more developed financial system tended to be more technically efficient. Based on the findings, the researchers concluded that political systems had an impact on the efficiency of the banking sector.

Spulbăr and Nițoi (2015) used a stochastic border model to estimate the cost-effectiveness of cooperative banks and savings banks in nine countries between 2005 and 2011. In addition, they analyzed the influence of certain variables that quantify the risk and performance of cooperative banks and of savings banks at the level of inefficiency. They found that both co-operative banks in Switzerland and savings banks in Norway and Sweden have a high level of cost-effectiveness. Regarding the variables that influence the level of inefficiency, the results showed that a higher risk implies an increase in this level, while an increase in performance leads to a decrease in inefficiency. The results showed that a higher rate of gross domestic product (GDP) implies an increase in inefficiency. Smaller banks are more cost-effective than larger banks. They interpreted this result as a consequence of the benefits enjoyed by these institutions within the groups to which they belong. Also Spulbăr and Nițoi, in the same year (2015) using a heteroskedastic stochastic border model, investigated the differences in cost efficiency of commercial banks in six emerging countries in Central and Eastern Europe in the period 2005-2011. They also highlighted the determinants of cost-effectiveness of banks. Their analysis was important because the efficiency of commercial banks became essential for the stability of banks. The results showed that high macroeconomic stability supports the efficiency of commercial banks. Also, banks that take higher risks are more inefficient. As a result, banks with less liquidity, lower solvency and higher credit risk are more inefficient than more prudent credit institutions. Analyzing the evolution of the cost index, they found that banks in all banking systems included in the study managed to increase the level of efficiency by 2008. The year 2009 brought a decrease in efficiency for Polish, Romanian, Russian and Hungarian banks. At the same time, for the Bulgarian and the Czech Republic banks, they noted a stagnation of the efficiency index.

3. Conclusions

The regional economic environment does not favor the stability of the financial system, but prevents the increase of the efficiency and productivity of the banking sector. The source of the crisis is the deprivation of the banking sector to play its part in an economy, to raise capital and to invest efficiently. Consequently, the measurement of efficiency and productivity indicators remains the starting point for assessing the soundness of the financial system as a whole. With regard to the problems caused by the financial crisis, regulatory standards have been revised, including micro and macro-prudential rules, to allow for a better identification of banking and financial risks, their management and their mitigation with a view to sustainable development. For a healthy banking sector, it is suggested continuous monitoring and evaluation of performance indicators, increased oversight by authorized local or international institutions on the sector, continuous review of the regulatory system in response to changes and developments in the economy as a whole, regular assessment of asset quality, the adequacy of capital to the set limit, the restructuring of the sector in accordance with its performance, etc.

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THE QUALITY OF THE INFORMATION PROVIDED BY THE ECONOMIC - FINANCIAL ANALYSIS, A CURRENT ACCOUNTING PROBLEM

Mihail Alin STANCIU, Ph.D.

“Valahia” University of Târgoviște, Romania

E-mail: alin_mihail_stanciu@yahoo.com

Abstract: *The rise of the economy has been accompanied by the evolution of the information society and the knowledge society, playing an important role within them. The starting point of this paper is the desire to determine the factors that favor the increase of the quality of the accounting information in order to identify the features of a successful information system at entity level. Quality accounting information should play a key role in efforts to create performance and increase market value at the micro and macroeconomic levels. Studies were carried out regarding the impact of the quality of the accounting information on the performance of an entity with the emphasis placed on the sequence of the performance evaluation at the entity level. The present paper aims to answer some questions regarding the measurement and the role of the quality of the accounting information at entity level. By linking the quality of accounting information, performance and competitiveness, a conceptual framework can be constructed to analyze the different dimensions of information quality in the economic-financial field. The analysis of the modalities of developing the competitive advantage of the entities can be done from the point of view of information quality. A competitive advantage of the entities is based on their ability to accumulate, exploit, combine innovate the set of information from the level of economic-financial analysis and financial reporting.*

Keywords: *accounting information, economic-financial analysis, performance, information competitiveness, financial reporting.*

JEL Classification: *D83, M41.*

1. Introduction

Accounting forms a source of information for a nation, a significant percentage of the economic environment information representing accounting information. Each entity must permanently adjust its information supply in the accounting field in relation to the existing demand.

In the context of the international accounting harmonization procedure, the quality of accounting information is in an improvement process. The multitude and complexity of information allows entities to increase the parameters of informational competitiveness with other partners and competitors on the domestic and international market. Under these conditions, the information provided by accounting is intended for a wide range of users and, as such, a structure of the conceptual framework starts from identifying the objectives of the accounting information and delimiting its qualitative characteristics, to realize the financial statements and to design the criteria by which will be recognized and evaluated. All of this will allow quality accounting information to be used for many categories of users.

2. Quality of accounting information and influence on performance

The adoption of IFRS is a prerequisite for increasing the quality of accounting information, mainly because it limits the manifestation of the non-principled behavior of the decision-makers in establishing the accounting values. Such a situation can be considered as limiting the manipulation of the result. The standardization bodies had intense concerns regarding the establishment of the criteria regarding the accounting quality. The quality of accounting information has served as a subject of study for many specialists. The concept of quality of accounting information derived from the economic-financial analysis during the communication process, concerns three elements: reflecting the reality, printing a conclusive meaning and transmitting the information in a safe way. In order to be able to outline the concept of qualitative accounting information, the researchers most often expose aspects such as the accurate representation of information in

the economic-financial analysis and financial reports, the importance of accounting information in making investment decisions, the reflection of reality through comparable and complete information.

Accounting standards that limit managers' opportunistic behavior allow the determination of accounting results that better reflect the economic reality and are therefore more qualitative (Barth et al., 2008).

In the last decades, the role of accounting information has increased dramatically, these increasingly influencing the behavior of users in substantiating decisions. Quality accounting information will provide the opportunity to make timely decisions, which in turn requires obtaining in the accounting of information of the same quality as those used. Accounting practices are developed and regulated by increasingly imposing comparability of information to facilitate rational decision making, transparency of information to generate confidence among participants, and social credibility to allow accounting information to become a reference base for many users. As the quality of some goods, services is evaluated by the utility for the person who uses them, so we can consider that the accounting information is qualitative if they are useful to the entity or to the external users when making decisions.

The quality of accounting information is especially distinguished in providing the annual financial statements from which it is expected to contain accurate and real information. The quality of financial reporting requires entities to voluntarily expand the volume and quality of the information they report, to ensure that participants are fully informed to make investment, lending, etc. decisions (Martinez-Ferrero, 2014).

The economic-financial analysis provides information for three directions of action, their quality becoming paramount in the success / failure of the actions for each level:

- planning is represented by designing a course of actions, identifying the variants and choosing the optimal one;
- the control is represented by the pursuit of the observance of the planning;
- the evaluation is represented by the examination of the decision-making system in order to improve it. The assessment is based on the information in the financial statements.

The quality of the information can be appreciated in relation to the level of representation of the reality and with the level in which the information helps the beneficiary to create a reality that he cannot visualize alone. This transposition of the reality that is communicated to the beneficiary through the data obtained by the transmitter, is conditioned by: the aims pursued in the communication, the framework in which the transmitter activates, the means available in the representation of the reality. Information transmission is the level with many restrictions and constraints that could affect the quality of information due to the vulnerabilities of the process itself.

Given the IASB's international regulatory body's concerns about developing high quality accounting standards, and continually improving the quality of existing IFRS standards, financial reporting under IFRS should become more relevant and credible (Soderstrom and Sun, 2007).

A series of determinants of the quality of the information presented in the financial statements is presented by the Soderstrom & Sun auditors and includes three factors: the quality of the standards, the legal and political system of a country and the motivations regarding the financial reporting, regarding the development of financial markets, capital structure, structure shareholder and the tax system (Soderstrom and Sun, 2007)

By applying international financial reporting standards, one can determine the improvement of the quality of the accounting information, ignoring the incidence of the institutional factors specific to each economy.

Accounting proves to be a very useful informational tool for the state, providing information that allows to know the evolution of the national economy and, thus contributing to the foundation of the economic policy. The accounting information system plays the main role in directing the flow of economic-financial data to all subsystems of the entity and to the interested external categories.

In analyzing the overall performance of an economic entity, the quality of the financial-accounting information we use at a given moment is decisive, preferably more and more analytical. The users of the accounting information constantly request information about the overall performance of the entity used in its own decision-making process. The subject is long researched but it implies a common point: the quality of accounting information is linked to the degree of evolution and perception of economic phenomena. Accounting information is ubiquitous in the activity of an economic entity through their role within the entity and through the interest they arouse to external users of information. The quality accounting information that can ensure a performing activity must fulfill the following attributions: accessibility, topicality, intelligibility, relevance, reliability. Information about the financial performance and the dynamics of the financial position of the entity have as source the financial statements, they offer the possibility to evaluate the past results accompanied by their analysis, with the purpose of predicting the future performance.

Basically, the profit and loss account was considered the appropriate way of reporting the financial performance, according to the accounting through historical costs. However, the changes in the fair values of certain patrimonial elements are not found in the profit and loss account, but are found in the equity, which shows that the information taken from the profit and loss account is not sufficient to reflect the performance of the economic entity for a certain period, in this situation the quality of accounting information having to suffer. Another situation of the last years is related to the accounting result that no longer corresponds to the current reality, given that it does not take into account the latent gains and losses registered directly in the equity. For these reasons, in order to bring an optimal quality of accounting information for the present situation, the concept of economic result appeared that measures the overall performance of the entity. In order to carry out an economic-financial analysis, the financial analysts take the raw accounting information and transform it into another type of information, which reflects their ability to understand, synthesize and interpret the information in its raw material quality.

The evolution of the natural and social systems directly influences the information related to the entire economic field. Permanent knowledge of the status and functionality of the components of the economic system determines the development of the economic information system. Most and conclusive financial and accounting information are from the tax side and are included in the balance sheet, profit and loss account, annexes and other reports to be submitted to financial institutions. It is obvious that a manager, in order to obtain a higher profitability of the entire economic activity within the entity he manages, must maximize his profit and minimize his costs, impossible to achieve without using quality economic information. Thus, the evolution of the economic entities depends on the quality of the accounting information.

The continuous improvement of the economic and financial information is required by the evolution of the company at European and global level. In analyzing the overall efficiency of an enterprise, the quantity and quality of financial-accounting information existing at a given time in the system of the economic enterprise is particularly important, preferably at increasingly analytical levels (Creacă, 2000).

The quality of the economic information comes to complement the economic reality perceived by the users, which they cannot view otherwise. The quality of

accounting information is directly influenced by the management of the information system in this case obtaining, processing, elaborating and transmitting them. The accounting information, of quality and prompt, contributes to the efficient management of the activity of the entity and to the increase of its market value. In the current period, the synthesis and reporting accounting documents have undergone and undergo a number of essential changes, both in terms of form and content, so it can be said that the rules governing international financial markets are increasingly putting their mark on characteristics of accounting information.

In an information-based economy, where consumer financial education is no longer low, the demands on entities are in an upward dynamic.

Also, the quality of accounting information could be improved if, in conjunction with the adoption of IFRS, there would be changes to the financial reporting system, for example, through a more rigorous enforcement mechanism (Barth et al., 2008).

3. ICT news in the information accounting system

The managerial information system comprises several interconnected subsystems that provide the information necessary for the activity of the entity, a central place occupying the accounting information system. News in the field of Information Technology and Communications (ICT) can be highlighted as the main factor involved in increasing the quality of accounting information. Confidence in an innovation-based economic information system needs to be created and sustained, with innovative approaches being applied as a precondition for success. Initially viewed as a complementary element in the pursuit of economic activity, information technology plays an increasingly important role in achieving the quality of accounting information. Modern analysis and prediction techniques, ERP (Enterprise Resource Planning) accounting information systems (SIC), or XBRL (eXtensible Business Reporting Language) through a financial education of entities, will enhance the quality of the accounting information issued respectively used at the entity level.

The accounting information system is generally a computerized system used to perform the accounting tasks within a company. It is included in the entity's information network and is responsible for generating the necessary information in the decision-making process (Ceran et al., 2016). The quality of accounting information produced by an information system has served as a subject of study for many specialists. Today, it is necessary for economic entities to integrate their employees into a large database that will allow managers and other categories to obtain the information needed for planning, decision making and control, whether the information is for the entity's marketing, accounting or other systems. economic. The quality of the accounting information allows the entities to increase the competitiveness parameters related to the information system in relation to all the competitors on the domestic and international market.

The evolution of the information needs imposed by the evolution of the natural and social systems - objective reality that implies the permanent knowledge of the state and the functionality of the component elements of the systems - has determined the development of the economic information system, of its component elements, the operative record, the accounting and statistics (Dănescu, 2000).

The use of ICT in the business environment directly influences the increase of the abilities to manage the financial transactions and to register them at the level of the entities so that they reach their economic objectives, in accordance with their mission and strategies. The rapid access to information and the elimination of redundant operations have developed the system of economic-financial analysis and financial reporting by improving the quality of accounting information.

4. Conclusions

Quality accounting information is an inexhaustible resource, a factor that influences the degree of prosperity of an entity or even of a country. The accounting information, of quality and prompt, contributes to the efficient management of the entities and to the increase of their market value. In the contemporary period, the synthesis and reporting accounting documents are characterized by a series of essential changes in form and content, the jurisdiction and the rules governing the international financial markets, increasing their footprint on the characteristics of the accounting information. In order to reflect as accurately as possible the performance of an entity, its financial position, the accounting alternatives allowed must be used with great care and responsibility. It is not guaranteed to produce and publish qualitative financial reports only by applying global quality standards, the switch to IFRS can have both positive and negative effects on the quality of the accounting information. The qualitative accounting information that can support the success of the entities is the one that, after identifying and applying the appropriate accounting policies and adapted to the specificity of the entity, reflects the economic-financially analyzed reality of the transactions carried out, in a coherent, transparent and intelligible way. In the accounting field, the quality of information has a directly proportional influence on the efficient management of the entity and the increase of its market value. The economic-financial analysis is in a relationship of continuous interdependence with the quality accounting information, being both their basis and their result.

This approach demonstrates the major positive impact of quality accounting information on economic-financial analysis, financial reporting and business performance. An optimal quality of accounting information allows managers to make better decisions in order to achieve the entity's objectives and this can maintain better links with all its business partners, which is a must for competitiveness. The economic information is present today in all fields of activity, without them, in a qualitative form, the progress being slow or even non-existent. The present study tried to highlight the role that the information obtained from the economic processes through the accounting situations has in creating strategies for developing an economic entity and if there are limits regarding the accounting information.

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AN OVERVIEW OF THE CHANGES AND DANGERS OF E-LEARNING

Ph.D. Student Ana-Maria NICOLAE (STAN)

“Valahia” University of Târgoviște
E-mail: annanicolae@yahoo.com

Ph.D. Student Iuliana MIHAI (VASILE)

“Valahia” University of Târgoviște
E-mail: yliavasile@yahoo.com

Abstract: *Change has always been a challenge for society. Over the years, analysing the consequences of change, people have tried to tip the balance in benefits and progresses favor, reducing this way the risks and dangers. The theme of change in the organizational field is current, as there are many changes and reforms in society, this happens in romanian educational area too. The ability to adapt of the human resources involved in the process of change, has become a fundamental condition for success, no matter the area, and in more and more cases, a condition for survival. In the current global context, changes that take place in the social and educational area require day by day a rethink of the educational approach, in accordance with the necessity to find new strategies and resources to create the premises of a trained, free person, able to adapt easily in a changing society.*

Key words: *management of change, e-learning, cyberbullying, Kolb Cycle.*

Classification JEL: *I21.*

1. Introduction

In the middle of a sanitary, economic and social crisis, the last months have brought to the entire humanity a new challenge- the challenge of implementing change quickly and effectively. The new Coronavirus reconfigured the face of humanity, forcing it to step backward and rethink the ways of approach to change that it had been analyzing for years, but which it must implement today at a very fast pace.

Given this context, projects that were intended to start at a future time or projects that were in their early stages were implemented. This includes the digitalization of education. This is not a completely new project for Romania.

The Europe 2020 strategy, with the priority of “Smart growth- developing an economy based on knowledge and innovation”, considers it to be conducive to developing equal opportunities and ensuring access to education, training and lifelong learning for all citizens.

In January 2018, the Digital Education Action Plan, a project that was created to be implemented in the education systems of all the European Union countries, appears. This plan consists of eleven supporting actions designed to support the integration of digital technology into education and the development of digital skills of those involved in education.

The Action Plan sets out three priorities, mentioning how European Union countries can be helped to adapt their education systems to the requirements of the digital age, and how new technologies can be integrated into the educational and training process. The three priorities are:

- The efficient integration of digital technology into education process, with reference to equipping the educational places with specific devices;
- Developing digital skills and competences for all those involved in education, by participating in training courses for teachers, or in seminars/optional for the students;
- The existence of a prospective vision of improving the educational act using a better analysis of the current situation in the education system.

Its implementation has been quite cumbersome, has faced many controversy and has raised new problems for all human resources involved in the education act. However, on-line education has become the only viable option in the context of the pandemic and, starting with 11th of March 2020, it applies in Romania.

2. Advantages and disadvantages of using e-learning- about cyberbullying

Initially, by the term of e-learning was understood the use of digital technology in education. But during the time, the term has widened, and it now means facilitating learning and improving education performance by using technological resources appropriate to the education system. At the same time, e-learning is also an initiative that seeks to bring together teachers and pupils, no matter their geographical barriers and physical distances, into the virtual environment.

In her paper *"The critical study of the current e-learning systems"*, Iuliana Dobre proposes the following definition of the e-learning term: "Any act or virtual process used to obtain data, information, skills or knowledge. E-learning thus means learning in a virtual world where technology cooperates with human creativity to accelerate and facilitate deep knowledge of the studied area" (Dobre, 2010, p. 5).

The e-learning concept has gained ground step by step in Romania. While at first it was viewed with scepticism, both by teachers and pupils and parents, as the time has passed and successful experiences in different European education systems have been publicised, e-learning is also becoming a practice in educational institutions in our country.

Nowadays, in a world where the Covid-19 pandemic managed to disrupt the routine of life in many of the world's countries, e-learning is proved to be the saving solution for education. Among measures taken for the safety of individuals and preventing the spread of disease, social isolation was the most important. People were forced to give up many of the activities they used to do, to respect their own home space, without contact with others than family members. The professional activities were carried out from home (as far as possible). The transport was restricted. Schools have been closed and teaching has moved to the online environment. For this change many teachers were not prepared, but the adaptation is being gradually made and the process is still ongoing. The e-learning platform, an alternative for education, has become the main way for teaching.

Implementing e-learning brings a number of advantages and disadvantages in comparison to the traditional education system.

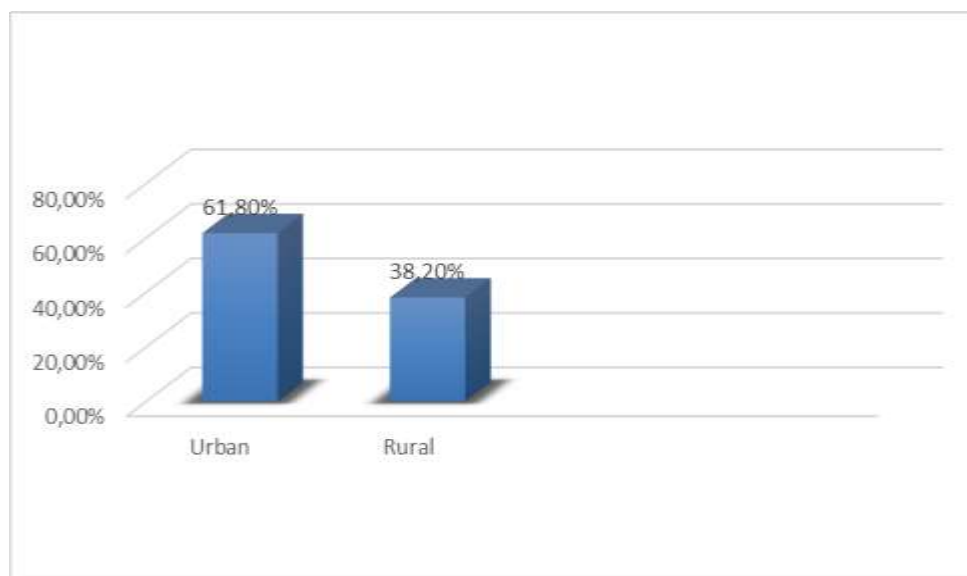
Advantages are:

- Crossing physical borders;
- The possibility to access educational content at any time and from anywhere;
- Efficient presentation of the information;
- Linking learning styles to the benefit of the students;
- Combining traditional learning methods with modern learning methods;
- Adequacy of time resources according to the needs of the group;
- Creating groups focused on interests, bringing together people of all ages, with different studies.

Disadvantages are:

- Internet access is not available for all children. According to the National Statistics Institute in 2019, 75.7% of romanian households had access to internet from home, which is an increase with 3.4% from 2018, 61.8% of them are in the urban areas (graph 1). However, internet connection also depends on other factors such as the existence of digital service providers, the financial possibilities of the families, or the level of education of the family's legal representative. The influence of all these

factors is reflected in the decision of connecting to the internet, which explains the large gaps encountered between urban and rural areas.



Graph 1. Structure of households with access to the Internet at home, by residence area, in 2019

Source: done by authors according to INSSE data

- High drop-out rate among children, they need constant adult supervision to participate in online education activities;
- Security of personal data of the sites and applications used in e-learning;
- Minimum experience in computer use;
- Cyberbullying.

Of all the above, worldwide, there is a significant increase of cyberbullying.

Cyberbullying is a form of cyber aggression that is affecting more and more people, especially young people. The negative effects are multiple, from anxiety, anger, fear, frustration, lack of confidence in their own forces, to depression and even suicide. It can be associated with disinterest in school, in the favorite activities, school backsliding, problems in the family. Cyberbullying influences the emotional-psychological dimension, through the negative conditions it gives to the individual, and the social-relational dimension, by reducing self-esteem, reducing the interaction with others, and by leaving school.

Young people are constantly connected to technology and they do this for school activity, to stay in touch with their friends, to learn about celebrities, play games, share their creations, or for many other reasons. As online communication tools have become a part of their lives, it is not surprising that some young people have decided to use technology to be malicious or threatening with others.

The desire to claim superiority in front of others, to humble or to verbally abuse is one of the impulses that characterize many of those who communicate in the virtual environment. These people are aggressive and impulsive also during their direct interaction with others. This form of violence manifested through social media, sns, mail, chat, online forum is called cyberbullying.

Cyberbullying has been identified, after a survey, as having the following weight: online rumors (13.3%), malicious comments online (14.3%), threats via a mobile phone text message (8.4%) (Hindja and Patchin, 2019a, p. 1). Between 10% and 40% of young people are estimated to have experienced cyberbullying.

The most popular social networks are also the environments where cyberbullying frequently appears: Facebook, TikTok, Snapchat, Instagram, Twitter, but also on sites such as YouTube, Twitch and Live.me.

A major disadvantage of cyberbullying is that the author can hide his identity, which makes him manifest his aggression with more cruelty than he would have done it face-to-face (Donegan, 2012).

The "mask" that anonymity gives him (false addresses, aliases) develops the most violent tendencies, and in the same time he cannot see the victim, which is why the empathization function is reduced.

In the cybernetic environment, the number of victims, aggressors and witnesses is unlimited. By making the actions viral, information moves quickly and can be seen by a very large number of people with a single key press.

Adolescents are a group with a higher degree of vulnerability to these unhealthy habits. So, although many parents buy mobile phones to protect children, it is a fact that the phone becomes a cyberbullying tool.

The visibility of personal data online is a risk that many adolescents are not able to manage. In this way they can expose information about themselves and they become victims of cyberbullying.

The negative effects of cyberbullying spread to the intimidated individual like a snowball, with long-standing repercussions for personality development.

Although this is an extreme consequence of cyberbullying, suicid is the third most common cause of mortality among young people aged 12-17. A link has been found between intimidation, harassment, verbal/mental assault and self-murder thoughts and attempts (Hindija and Patchin, 2019a).

A particular problem is that the intimidation and cyber-harassment of young people are the basis for antisocial behavior, delinquency, crime and criminality of future adults. So, both victims and aggressors are affected in the long run.

Regarding the gender approach, the data reflect the fact that the proportion of cyberbullying among girls (38.7%) is higher than among boys (34.1%). This does not necessarily show the higher vulnerability of girls, but the power of confirming these behaviors, many of them not recognizing that they are victims, being afraid not to be disregarded by others (Hindija and Patchin, 2019a).

The use of mobile phones has become a way of life, a necessary and time consuming element. In recent years this problem is associated with technology dependence, mental behavioral deviation or disorder like anxiety, depression. A study by researchers at Rescue time, monitoring an application of iOS and Android, shows that we spend an average of 3 hours and 15 minutes per day on the phone (The Guardian, 2019).

The inappropriate use of technology can affect young people's lives. It is a fact that cyberbullying is a phenomenon that has grown up and must be stopped. All actors involved in children's education should work together to resolve this problem: family, school and community.

Parents say they do not have the necessary training and time to supervise the devices that their children use and have high expectations from school. Teachers involve children in online training programs and activities, but they cannot interfere in children's behavior when they are far from school. Authorities only get involved when there is a clear evidence of a crime, when the harm is already done.

But it is easier to prevent, rather than to combat, and measures need to be taken by both the family and the school and also by community representants. Only with a sustained effort of all of those that are involved we can face this problem. School's rules must consider efficient programs to prevent and combat violence in the school environment,

linking prevention measures with current legislation. And because the problem of cyberbullying is getting worse in the same time with the technological progress, anti-bullying policies and laws should develop in parallel with the evolution of this phenomenon.

Legislative, cyberbullying is not sufficiently recognized and supported yet. The first steps in this way have been taken also in Romania over the last two years, but we are taking baby steps, and the way is long and difficult.

3. Kolb Cycle applications in the e-learning context

The human resources involved in education (teachers, pupils, parents) are at a critical moment. Each of them shall act in accordance with some indications, more or less clear, and shall learn from each other on the go; but all of them wishing that the teaching-learning-evaluating process to go further, adapting to this exceptional situation. Given the global context, we are facing an on-going adaptation to the new way in which education is carried out, and we have to develop new skills. This is not, however, new. Over the years, various people have developed theories about how people learn a new skill.

David A. Kolb developed its model (often named "Kolb Cycle" – Figure 1) in the '70s. He presents a cycle of steps which people take to learn new skills, adapt to new learning situations.

The four steps of Kolb's model are the following:

1. Concrete experience - new experience or situation or reinterpretation of an existing experience is encountered. In our case, we are talking about a new situation, that of the total transposition of the educational act in the virtual environment. At this stage, both teachers and students have a new experience: They learn to access and adapt platforms and sites to use them in a learning context. Things are starting to move, but there are problems (children are getting bored, they miss the activities).
2. Reflecting on the new experience – now teachers and students reflect on their experience and wonder how they can improve it. At this stage, a brainstorming can be achieved in order to be given ideas by pupils and teachers, for example: Proposals for more interactive platforms, adapting learning time to socialization;
3. Abstract conceptualisation – based on the reflection achieved, an abstract theory of the given situation is now developed. This will allow teachers to set long-term learning targets and give students time to become more familiar to this new learning context, while students will gain experience in using learning platforms, sharing ideas with all of those who are involved.
4. Active experimentation – now is the time for both teachers and students to put the learning into practice. More precisely, the next e-learning sessions will be scheduled in advance, adapted to the communication needs of the children and involve them as partners in the e-learning act.

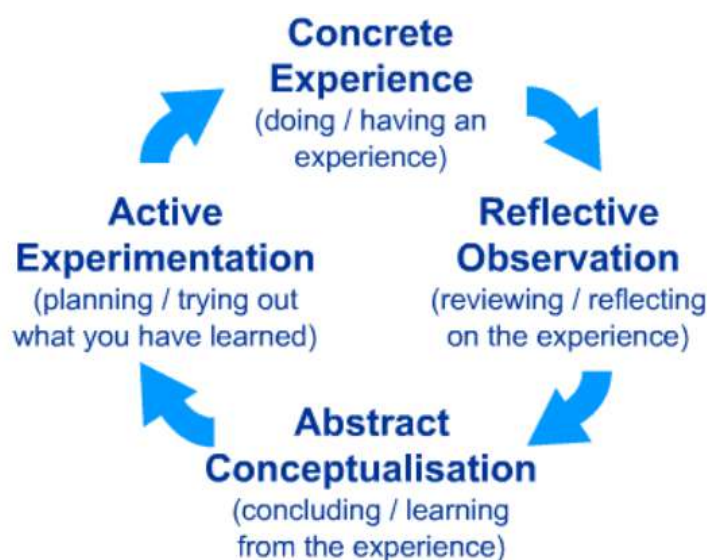


Figure 1. Kolb Cycle

Source: McLeod, S.A., 2017. Kolb - learning styles and Experiential learning Cycle. *Simply psychology*. [online] Available at: <<https://www.simplypsychology.org/learning-kolb.html>> [Accessed 7 April 2020].

The Kolb Cycle can be used by teachers who are in the situation of carrying out their activity on-line, to critically evaluate the mood to learn of the students and also to develop learning opportunities appropriate to the context.

Conclusions

The society we live in is changing at a steady pace. In order to survive, education systems must also learn how to permanently change. No strategy lasts forever. That is why planning and implementing learning cycles offer opportunities of adaptation to the current global situation.

Like any change e-learning found its supporters and contestants, but it is certain that there is an exponential development of information and communication technology, which, step by step, is taking place in the Romanian education system, showing new perspectives for educational practice by implementing modern teaching-learning and evaluation methods, specific to the information society.

In addition to the benefits of global connectivity, online space offers young people the opportunity to post and send any information without thinking about the consequences. This risk is difficult to manage, but the first step would be that it should not be ignored. Formal or informal reaction to an inappropriate online behavior is not the solution, collective and responsible engagement is the right way to address the problem. Implementing anti-bullying prevention programs from the earliest possible age will increase safety in schools and the idea that any intimidation, harassment, aggression behavior is unacceptable and will be punished.

Cyberbullying is a form of violence in virtual space, and violence, unfortunately, is present in a society where competition is encouraged. The total elimination of this phenomenon is not a realistic goal, but we can act effectively in a preventive manner, keeping pace with the technological innovation.

In this particularly complicated international context, which raises more new challenges day by day, we need to learn from our own experiences, ask the right questions

and look for new information so that we can formulate strategies that are appropriate to current practices.

The continuous cycle of experimenting, reflexive observation, conceptualisation and reexperimentation of strategies for all areas of the social system in general and of the education system in particular leads to learning and then to Change.

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LEADERSHIP VS. MANAGEMENT. MAXIMIZING MANAGEMENT PERFORMANCE BY DEVELOPING LEADER'S SKILLS

Ph.D. Student Ioana Antoaneta PONEA (RADU)

Valahia University of Târgoviște, Romania

E-mail: radoo_oana@yahoo.com

Ph.D. Student Maria Georgiana PONEA

Valahia University of Târgoviște, Romania

E-mail: georgia_ponea@yahoo.com

Abstract: *The organization is represented by human resources. The responsibility of leading the organization rests with the role of the manager. The efficiency of the leadership role translates into the organization's ability to achieve its goals. How does the manager succeed to determine a favorable framework for achieving the goals, how can he or she determine the human resource to put their shoulder, to concentrate all the available resources in achieving the objectives set by the institution he or she manages? These are goals to which any leader of the organization tends, since an evaluation of the managerial performances is strictly related to the fulfillment of the objectives that the organization has set itself. We can metaphorically look at the organization made up of a certain number of employees, without counting this number, as well as a gear made up of a certain number of wheels equivalent to the employees. Each wheel being a separate component, as psychologically individualistic as each employee, but in perfect harmony with the other wheels. Each person psychologically becomes a separate entity.*

Keywords: Management, Leadership, Objectives, Strategies.

JEL Classification: D91.

1. Introduction

The approach of the specialized literature towards the concepts of "management" and "leadership" causes them to be treated as distinct terms, but the practice shows the difficulty of their delimitation. In the definition of management, leadership represents one of the five functions of management. Manfred F.R. Kets de Vries (2001), points out the necessity of the leaders' presence in the different fields through the following rhetoric: "Why, after all, do people need leaders - leaders in politics, leaders in business, leaders in culture?" ... "because we live in a changing world".

The leadership requires to be a visionary, inspirational, motivational and dedicated person to keep up with the permanent changes of the environment that also entails many competitive forces. Filley, House and Kerr (1976) formulate the differences between management and leadership: "Management can be defined as an intellectual and physical process that results in subordinates fulfilling certain conditions, establishing official tasks and solving certain problems. The leadership, on the contrary, is the process by which a person exerts influence over group members".

The leader is the one who motivates behaviorally the group members so that all the actions exercised by him/her converge in the direction of achieving the objectives of the organization. The leadership is in a perpetual movement, to impose the necessary changes, to keep up with the changes that are constantly happening in the market.

2. Content

The management and the leadership appear as two necessary instruments for the development in optimal conditions of the activities within the organization. According to Parry (2011), "the management and the leadership are not comparable entities; the management and the leadership are two managerial styles that work together to achieve the success of the organization". The management, in the exercise of its attributions, is based on the attribute of the power that the function confers, at the opposite pole being the leadership used in exercising the activity on human interactions within the institutions,

targeting a process centered on social influence. For these reasons, although most of the times no clear distinction is made and these terms are used as synonyms, we consider the creation of a separation in consensus and with the idea launched by Zaleznik (2004) that leaders are not managers. The manager's attributions are structured in 3 functions:

- a clear vision that foresees the objectives in the future and their definition, fixing the stages of accomplishment and clearly establishing the necessary resources;
- establishing the tasks and distributing them to authorized persons;
- the activity within the institutional framework and the problems that this imposes in the dynamics aiming to reach the objectives.

The managers and the leaders also differ in the relationships they establish with the members of the institutions. The legitimacy of the manager comes from outside, following an appointment from the board of directors, while in the case of the leader, the support comes from the group, thus being able to rely more on the development of decisions and the course of actions on the members of the institution. A manager from this point of view cannot resort to these mechanisms, which will be a situation characterized by a much lower efficiency. A defining profile of the leader, of the manager, cannot be achieved insofar as the characteristics of a leader derive from the interaction between the individual profile and the situational diversity of the context. And what can be better than an employee who works motivated, who launches all the emotional and professional resources to achieve the goals of the organization.

The leaders are able to bring about changes in the culture of the organization, they have the opportunity to transform, to influence individual potentials in favor of the collective interests.

The leader is the one who builds a social architecture within the institutional framework, lays the foundation of a system of relationships that works coherently, while the manager's role is limited to an execution function without a real adaptation, he/she continues to the group characteristics and the challenges imposed by the organizational framework.

Anyone, from the lower levels to the top of the organization, can be a leader. Not a few times, an informal leader had an important contribution in carrying out the actions within the organization.

Within the organization, it is necessary to have harmony between the formal and the social structure, which will serve the collective goals and values. Institutional tasks, as a goal often difficult to achieve, must not be carried out mechanically, without a soul. Bennes (2009), president of California's Leadership Institute, states in his paper, "On Becoming a leader", that "Leaders are made, not born".

An efficient management style is the one that inspires people to participate with all the skills, to commit them with all the resources they must achieve the targeted objectives. Results are diminished by unhealthy cultures, and there is also a human price that is paid as a result of the ineffective implementation of change within an organization. This takes the form of:

- Disenfranchised employees;
- Loss of loyalty, trust and commitment;
- High levels of stress and burnout;
- Poor balance in life and neglected families;

The answer to superior competitive performance and more fulfillment for people can be found in the quality of a healthy culture and an enlightened 21st century style of leadership.

WHAT A SUCCESSFUL ORGANISATION LOOKS LIKE IN CULTURAL TERMS

- Managers more like coaches, less like supervisors or bosses;
- More influence and facilitation skills, less command-and-control;
- Rewards for adding value, not based on position, title or longevity;
- Continuous education to match the changing environment;
- Managers promoted for their ability to learn and train others;
- Fewer checks, audits and control steps;
- Flatter, less hierarchical organizational structure;
- Team-oriented incentives replace individual recognition;

Figure 1. Senn-Delaney Leadership Consulting Group, LLC.

Source: Senn, L. and Hart, J., 2016. *Winning Teams - Winning cultures*. Chicago: Senn-Delaney Leadership Consulting Group, LLC.

Every one of us can influence the culture around, in the organization, department or work team. Each of us will cast a shadow by our own behaviors and each of us has a choice in terms of our own personal and professional development.

All that we do or attempt to do within our organization will be impacted by our culture, therefore it is important to consider how we can better contribute to a healthy culture and better business results. Please see the chart below, which shows some of the transitions Senn Delaney believes individuals need to make:



Figure 2. Senn-Delaney Leadership Consulting Group, LLC.

Source: Senn, L. and Hart, J., 2016. *Winning Teams - Winning cultures*. Chicago: Senn-Delaney Leadership Consulting Group, LLC.

3. Conclusions

The leadership qualities are acquired requiring time and occupying certain positions within the organization to allow the acquisition of such skills. The leader must create for his followers the feeling and motivation of heading towards a certain scope. Attracting support from the members of the organization, a “welded” team is created, aimed at achieving goals, taking place in a framework in which each member is valued and feels that his/her work is appreciated.

The organization members must acquire the feeling of a firm conviction that they are players within the organization, with the freedom of their own choices within the organization. Effective employees need to experience the sense of competence, based on the belief of the importance of the activity carried out by each one within the organizational framework. Everyone's creativity, in order to flower, needs to find a channel of expression. It is not so important that the activities are performed, as the way they are performed, and for the realization of this design, it is important that each employee feels valued, to sense the feeling of the activity's importance that they carry out for the organization.

The leader manages to identify himself/herself within the group, obtaining legitimacy from it and at the same time offering to each member a framework that meets his/her needs. In the actions of a leader it is mandatory to find:

- a vision that takes into account the interests of all those who are part of the organization;

- a strategy to fulfill this vision ensuring a concordance between the environment and internal factors that can influence the objectives of the organization;
- resource allocation to apply the identified strategy;
- a group of people, to put soul, whose objectives are identified with the objectives of the organization and which contribute to the realization of the vision.

The influence of a leader is directly proportional to the degree of acceptance by the followers. The managers are the ones doing things the right way, the leaders are the ones doing the right things.

The leader sees a vision for the future and finds strategies to apply these visions, mobilizing subordinates so that they adhere to that vision and engage all the resources for its accomplishment, thus managing each employee to adhere to the organization's objectives motivated by his / her own goals.

The management represents a series of measures taken by the person at the top of the organization, a man - a manager, who leads people, people who form the organization. Only a leader can do this.

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ROLE OF GOVERNMENTS IN PROMOTING THE TRANSITION TO CIRCULAR ECONOMY

Ph.D., Research Coordinator, Victoria IORDACHI

National Institute for Economic Research of Moldova, Republic of Moldova

E-mail: timush_v@yahoo.co.uk

Ph.D. Hab. Rodica PERCIUN

National Institute for Economic Research of Moldova, Republic of Moldova

E-mail: rodica21@gmail.com

Ph.D., Research Coordinator, Olga TIMOFEI

National Institute for Economic Research of Moldova, Republic of Moldova

E-mail: o_timofei@yahoo.com

Abstract: *The transition to a circular economy has gained a special attention, being on the agenda of public authorities, the business environment, research institutes and non-governmental organizations. Thus, it is expected to bring about significant opportunities in creating new, better-quality jobs and contributing to a more sustainable economic growth. The process of transition to a circular economy is closely related to the reconsideration of unsustainable consumption and production models in order to determine future development opportunities. In Europe, there has been a real interest of the state governments for the implementation of programs and legislation measures on the circular economy. Government actions play a crucial role in making a circular philosophy a reality. This article reviews the efforts of the initiatives of some EU states in modernizing and transforming the European economy, in order to make it move in a more sustainable direction. At the same time, state policies from the experience of advanced countries are described, which can serve as a good example for countries that want to promote the circular economy. The analysis of the Circular Economy practices has proved the limits of its implementation. As a result, it can be concluded that to date there is no government that developed a comprehensive approach to develop the transition plan to circular economy.*

Keywords: *Circular Economy, sustainable economic growth, economic instruments, policy measures, sustainable development.*

Classification JEL: *O11, O13, Q57.*

1. Introduction

In the XX-th century a linear model of production and consumption dominated, in which goods were manufactured from raw materials, which were afterwards sold, used and then discarded or incinerated as waste. In conditions of rapidly growing signs of resource depletion, the need for a new economic model is getting a greater importance on the agenda of politicians. The necessity for a substantial improvement in resource performance has led Governments and businesses to explore ways to reuse products or their components and restore more of their precious materials, energy and labour inputs.

The transition to a circular economy will mitigate human health and environmental problems by reducing pressure on the environment. But this will require essential changes in the consumption and production systems, which will not only stop just at the efficient use of resources and recycling of waste. Overall benefits for the whole European continent could amount about 1.8 trillion EUR by 2030, increasing competitiveness, stimulating innovation, promoting economic growth and creating new jobs.

The process of transition to a circular economy is closely linked to the reconsideration of unsustainable consumption and production models in order to identify future development opportunities. In this regard, the implementation of the *2030 Agenda* for sustainable development, in particular the objective of sustainable development 12, brings to the fore the need for integrated promotion of environmental, social and economic elements (UN, 2015).

Like all major transitions in human history, the transfer from a linear to a circular economy will be a turbulent one, but if humanity will be persistent, the economy will return its path towards growth and sustainability. The whole society should play an active role. Governments should modify their tendering processes and implement requirements for circularity that can drive demand for new solutions. And since the circular economy is inherently systemic, it can only succeed if all participants co-design, co-create and co-own.

2. Theoretical background of Circular Economy

Lately, the perception of circular economy has experienced an ascending development through the active participation of all stakeholders. Thus, in the specialized literature there are over 100 definitions regarding the circular economy, which are concentrated around key concepts such as: sustainable development, the framework of 4R (Reduce, Reuse, Recycle, Recover), systemic approach (at micro, mezo, macro levels), or the waste hierarchy (Kirchherr, Reike and Hekkert, 2017).

Circular economy recycles the products at the end of their life cycle, with a minimal to zero waste production and use of resources. The main processes of circular systems refer to the total decrease of produced waste, their re-usage, recycling, reproduction and repairing (European Commission, 2015).

The concept of circular economy was developed by the members of the Ellen MacArthur Foundation within the annual reports *Towards the circular economy* that were inspired in works of the researchers M. Braungart and W. Donough. A circular economy represents an industrial system that is restorative by its intention and design. Unlike the linear model that is based on the principle „take-make-dispose”, the circular model follows the optimization or reduction of resources used and energy consumed (Figure 1) and aims for the ejection of waste through the superior design of materials, systems and products (The Ellen MacArthur Foundation, 2013).



Figure 1. The functioning mechanism of the circular economy

Source: <https://www.oecd.org/env/outreach/EC-Circular-economy.pdf>

Based on researches conducted by the Ellen MacArthur Foundation, *three important basic policies for the optimal design of circular economic systems* can be defined (The Ellen MacArthur Foundation, 2013):

Principle of Inputs. Firstly, according to the circular economy approach the natural resource systems are preserved by continuously controlling the base materials' reserves, and adjusting the material flows of renewable energy resources.

Principle of Sustaining Cycles. In the linear systems, if the resources that are necessary for production can't be purchased, the economy will not be able to register progress. On the other hand, circular economic models insure that these resources are always disposable through the biological cycles (biological base materials and raw materials) as much as possible (The Ellen MacArthur Foundation, 2013). Thus, the base materials from material cycle processes are returned into the environment through the shortest possible cycles. The process of resources' reacquisition, or modernisation, repair of technological systems generate the new product cycles within circular economic models.

Principle of Outputs. The increase of the system efficiency must be realized by identifying and planning the processes, through which the negative and positive externalities are avoided as much as possible. This includes planned soil usage by avoiding water and noise pollution, preserving good health, avoiding the usage and generation of toxic materials, using the systems of local resource usage (Fogarassy, 2017).

McKinsey Centre for Business and Environment analyses the circular economy from the perspective of three guiding principles:

- conservation and consolidation of natural capital through controlling the finite stocks and applying a balanced approach to the flow of renewable resources;
- optimizing the efficiency of resources' use through the usage of components and materials to the highest possible levels;
- efficiency of the system by eliminating negative externalities.

Taking into account the specific objectives of this article, we opted for the definition of the circular economy proposed by the European Commission, respectively: "In a circular economy, the value of products and materials is maintained as much as possible; waste and resource utilization are minimized, and when a product reaches the end of its life, it is used again to create additional value" (McKinsey&Company, 2016).

Thus, a Circular Economy encourages sustainability and competitiveness in the long term. Another benefits it can bring to global economy:

- resources' preserving – including some, which are increasingly scarce, or that are subject to price fluctuation;
- costs' saving for industries;
- generation of new business opportunities based on innovative and resource-efficient activities, which are producing clean products and services around the globe;
- creating local low and high-skilled jobs.

3. Towards the circular economy in EU

Officially, on December 17, 2012, the European Commission declared its interest in the circular economy, through a document called *Manifesto for a Resource-Efficient Europe* (EC, 2012), which states that in a world with increasing pressures on resources and the environment, the EU has no choice but to make the move to a resource-efficient economy and eventually to a circular economy of regeneration. Due to the adoption of the European Commission's "Package of measures on the circular economy", there has been a real interest of the states' governments in the implementation of some programs and legislation package on the circular economy. The proposed package included legislative proposals regarding the reduction of land-filling and waste, and a broad range of actions in order to close the loops of product lifecycles during the whole value chain - from

production to consumption, repair and manufacturing, waste management and secondary raw materials that are returned back into the economy.

In 2015, the European Commission adopted an ambitious Circular Economy Action Plan, which includes measures to stimulate the EU transition towards a circular economy. *The EU Action Plan for the Circular Economy* provides an ambitious programme of action with concrete steps and measures covering the whole cycle: from production and consumption to waste management and the market creation for the secondary raw materials. The action plan also foresees a revised legislative proposal on waste management, as well as timeline for the actions to be completed. As stipulated in the Action Plan, the proposed actions will generate the product lifecycles' "closing the loop" by greater actions of recycling and re-use, finally generating benefits for both the environment and the economy. The proposals are supported by 54 actions, which are implemented within concrete strategies in numerous activities and economic sectors (Key elements of the action plan are shown in table 1).

Table 1. Summary of the EU 2015 Action Plan for the Circular Economy, with examples of specific policies

Area	Examples of specific policies
Production	<ul style="list-style-type: none"> ➤ Eco-design: proposal to adapt the existing eco-design work plan (under Europe's Eco-Design Directive) to incorporate durability, reparability, and recyclability criteria. ➤ Cleaner manufacturing: R&D funding, knowledge centres.
Consumption	<ul style="list-style-type: none"> ➤ Proposed introduction of product labelling for durability ➤ Pricing: member states are "encouraged" to use pricing instruments. ➤ Consumer protection rules: e.g., guarantee periods ➤ Various proposed measures to promote "innovative consumption," including ➤ collaborative consumption models based on leasing, lending, and sharing ➤ Adapting existing public procurement rules
Waste management	<ul style="list-style-type: none"> ➤ New legislative proposals on waste and landfills, including new binding targets ➤ Proposed changes to extended producer responsibility rules to reward products that are designed for easier repair, remanufacture, or recycling. ➤ Direct funding support for "laggard" regions by cohesion policy.
Boosting markets for secondary materials	<ul style="list-style-type: none"> ➤ Clarifying legal rules on definitions of "waste". ➤ proposed standards for various secondary materials to foster markets.
Priority areas:	<ul style="list-style-type: none"> ➤ Five priority areas are identified: plastics; food waste; critical raw materials; ➤ construction/demolition waste; and biomass and bioproducts.
Innovation, investment, and "horizontal" measures	<ul style="list-style-type: none"> ➤ Funding for research and innovation under Europe's Horizon 2020 program and also through the Cohesion Policy.
Monitoring progress:	<ul style="list-style-type: none"> ➤ The action plan refers to the resource efficiency scoreboard and raw materials scoreboard, with commitments to develop new indicators for a range of CE topics. However, the action plan does not include any explicit indicators for the circular economy.

Source: McDowall et al., 2017.

As a follow-up to the Action Plan, the European Commission presented the *Eco-design Working Plan 2016-2019*, as part of the *Clean Energy for All Europeans Package*.

This Working Plan includes a broader exploration of the possibility to fix product requirements that are relevant for the circular economy such as durability, reparability, upgradeability, design for disassembly, information, and ease of reuse and recycling.

Simultaneously with the introduction of the Eco-design Working Plan, the Commission launched a platform comprising the European Investment Bank (EIB), financial market participants and businesses and the European Commission itself with the scope to increase attention, know-how and involvement by possible investors. Besides these initiatives, the Commission adopted several related policy initiatives, such as an updated *Guidance on Unfair Commercial Practices Directive – Action on environmental claims, and strengthened enforcement of the revised Waste Shipment Regulation*.

In 2018, the European Commission adopted other initiatives in the context of implementing the Circular Economy Action Plan:

- *A proposal for a Directive on the reduction of the impact of certain plastic products on the environment* - implementation of the EU Strategy for Plastics in the Circular Economy. The Directive proposes various measures for specific items made of single use plastics by taking into account the consumer behavior, as well as consumer needs and opportunities for business. Other measures include opportune labelling, awareness' raising, voluntary actions, and the formulation of Extended Producer Responsibility schemes that would also cover the costs for the clean-up of litter (EC, 2018).

- *Questions and Answers: New EU rules on single-use plastics Factsheet Impact assessment & Summary*.

- *A proposal for a Regulation on minimum requirements for water reuse* - the proposal is establishing minimum requirement to boost the efficient, safe and cost-effective reuse of water for irrigation and represents a deliverable of the Circular Economy Action Plan.

In 2019 the European Commission adopted an extensive *Report on the implementation of the Circular Economy Action Plan*, which presents the main performances under the Action Plan activities and stipulates future challenges for countries in transition to circular economy in their desire to follow a climate-neutral, circular economy in which burden on natural and freshwater resources is minimized. According to the deliverables of the report, the implementation of the Circular Economy Action Plan in EU helped in the process of job creation. Thus, for example, in 2016, sectors relevant to the circular economy employed more than four million workers, a 6% increase compared to 2012 (EC, 2019). Also circularity boosted new business opportunities, for example, in the EU in 2016, circular activities in form of repair, reuse or recycling generated around 147 billion EUR in value added out of 17.5 billion EUR as investments (EC, 2019).

4. Role of government measures in promoting the transition to Circular Economy

Circular Economy policies are attracting more and more attention all over the world as an increased amount of policies arise that stimulate the change for countries to become more circular.

Policies play an important role in the process of directing the private sector towards circular business transformation. The circular economy initiatives should not be voluntary or facultative. Strong policies, laws, regulations, and initiatives from governmental structures locally and globally are necessary to protect the environment and the way businesses function (Upadhayay and Alqassimi, 2019).

Taking into consideration the costs and difficulties faced when engaging in business model transformation, there are required incentives to facilitate the transition from linear to circular production patterns.

Some of the key measures aimed to support the transition to a Circular Economy are given below:

Regulatory measures are one of the most important policy instrument that are very efficient in achieving specific results. The circular economy addresses the environmental challenges that require strong Government intervention. Therefore, regulatory instruments such as bans are efficient in promoting transition toward the circular economy. Also, mandatory take-back schemes for packaging targeting waste/pollution, banning unsustainable products or materials can be applied.

For example, in 2016, *France* adopted a law according to which all disposable utensils are banned. Starting in 2020, most plastic cups, plates and cutlery will be totally banned. The only exception will be for disposable items manufactured from biodegradable substances. This decision follows the country's total ban on plastic bags in 2015 in accordance with the *Energy Transition for Green Growth Act* and has the scope to transform France into an exemplary nation in terms of reducing its greenhouse gas emissions, diversifying its energy model and increasing the distribution of renewable energy sources.

Another good example is *Sweden*. In 2003, the EU adopted the *Waste Electrical & Electronic Equipment (WEEE) Directive* and all member states have implemented it. According to this Directive, all EU member states are obliged to reach a minimum of 4 kg WEEE collected per capita. The Swedes, however, collected a total amount of e-waste in 2013 of nearly 17.5 kg per capita, which is 77% of the whole amount put on the market. The Swedish government recognised that key drivers of success within the implementation of the Directive resulted from a close cooperation of producers and municipalities within the process of creating an efficient and competitively neutral collection of logistics' solutions. The Swedish regulation obliges producers to establish or finance an e-waste recovery system and stimulate consumers to bring their e-waste to collection points. The policy also acts as an incentive for manufacturers to produce more environmentally friendly products in order to diminish costs and reach reuse and recycling objectives (De Groene Zaak, 2015, p. 11).

Japan adopted the *Law for Promotion of Effective Utilization of Resources*, which represents a legal framework covering the entire lifespan of products from the plastic, electronic and electric, paper, packaging, automobile and raw materials processing industries, both upstream and downstream. It fixes standards for manufacturers regarding the generation of by-products and used products. Producers are obliged to use recycled resources and reusable parts in the process of new products' production. The law stimulates the design and creation of products that are easy to recycle and demands a voluntarily take back of products at end-of-life. Also, the Government of Japan promotes research and development activities, mass implementation of educational and publicity programmes for the buy-in of the public, and uses their procurement power in its efforts to stimulate the use of recyclable resources and reusable parts. Through this and other policies, 98% of all metals in Japan is recovered (De Groene Zaak, 2015, p. 13).

Economic instruments. Countries (at the level of region or city) can adapt funding instruments to support business – or citizen-led initiatives, which directly or indirectly facilitate the promotion of circular economy practices. This can be in form of direct funding including loans, subsidies and grants for projects promoted by business or citizens.

For example, the *Brussels* government launched some calls for projects which promote circular economy. One call for projects relates to financing and incubating

circular solutions, assigning grants for small enterprises in some sectors like sustainable food, personal care, ICT, eco-construction, waste and resources, and the energy sectors. Another call for projects focuses on promoting innovation through generation of cooperation between researchers and practitioners, with the financing of several projects related to green technology, resource efficiency and circular business models.

Using fiscal incentives or promoting specific types of businesses or investment in economic activities is very popular in supporting green economic activities. Regions and cities, within their local taxation system, can apply fiscal incentives to promote investment in circular businesses and technologies. For example, fiscal incentives to incorporate clean technologies in the production process are practiced in the Netherlands, UK, Basque Country, etc.

Financial incentives are efficient instruments in promoting circular business models in comparison to linear business models. Attention should be placed on diminishing taxes on labour and value-added tax on recycled products and, on the other hand, increasing taxes on virgin raw materials in favour of secondary raw materials. These incentives should also inspire increased production, extraction, and cascade composting of biomass and recyclable resources.

The incentives can be in the form of sustainable public procurement programs, taxes, fees, bonuses, and innovation grants. The categories of taxes available for Governments to reduce labour taxes and in general labour costs are: income tax, social contributions, profit tax and VAT. Within each category there can be used several options regarding the tax rates, deductions, exemptions and allowances.

For example, companies in the *Basque Country* that invest in environmental improvement projects benefit from a 15% corporate tax rebate. Also, companies that invest in equipment related to the so-called 'List of Clean Technologies' receive a 30% rebate. The List approved by the regional authorities prioritises 92 technologies because of their contribution to resource efficiency and environmental benefits (for radio-frequency identification, vacuum evaporator crystallisers, plastics and non-ferrous metal separators, briquetting press, etc) (Technopolis Group, 2019).

Governments could increase taxes on resources, as well as consumption and pollution costs, in general, by increasing taxes on air pollution, building materials, ecosystem services, energy, food production factors, fossil fuels, metals and minerals, traffic, waste, water and VAT.

In *Finland*, the following incentives were proposed to promote carbon-neutral circular economy goals:

- the introduction of a carbon price floor to tackle air pollution in the energy sector;
- the removal of diesel subsidies in the transport sector to gradually phase out the use of fossil fuels;
- the increase of electricity tax for bulk users and the removal of subsidies for energy-intensive industries;
- the introduction of air passenger and air freight taxes;
- the introduction of a waste incineration tax and nuclear waste tax;
- the introduction of natural resource taxes for water abstraction, and the extraction of metal ores and non-metallic minerals;
- the introduction of a pesticides tax in agriculture.

Other actions to promote the transition to Circular Economy can be mentioned as follows:

A. Reducing labour costs (labour taxes) for research and development of the use of circular resources. It aims to reduce the tax burden on labour for R&D employers (and, at

the same time, to promote job creation in innovative sectors), and to promote sustainable innovation.

B. Zero VAT rate for labour intensive services. The long-term objective is to introduce zero quota for labour intensive services. The purpose of this measure is to reduce the labour tax burden for employers in labour-intensive sectors (and, at the same time, to promote job creation in these sectors), to reduce the costs of labour-intensive services for consumers, and promote sustainable innovation. Zero VAT rate could be applied for:

1. the entire repair sector, including repair and maintenance of cars, electronics, machines, computers and shoes;
2. the enterprises that provide energy consulting and the installation of renewable energy technologies in social housing.

Economic incentives such as *a sustainable procurement policy or charges related to the use of raw materials* can also help in promoting the circular economy. Examples of measures to increase the producer responsibility might be in form of pre-cycling premiums and consumer-oriented price incentives, thus applying the *polluter pays* principle.

Green public procurement (GPP) or sustainable public procurement has been used for over two decades in the EU states, but at present it is gaining some updates to the regulations covering socially responsible and including green, procurement practices. Until now GPP criteria have been developed for 21 categories of products and services, to facilitate the inclusion of green requirements in public tender documents.

Sustainable public procurement means that governmental authorities declare sustainability a leading criterion within the procurement policy or tender process, by formulating clear sustainability goals and in this way challenging the market to produce the most sustainable and innovative solutions. A simple example of sustainable procurement is the obligation of the Government to give a preferential position to certain sustainable alternatives in the procurement process (De Groene Zaak, 2015).

For example, in the USA, all federal agencies are required to give preference to certain products that are bio-based. The BioPreferred Program is a USDA-led initiative that aims to assist in the creation and expansion of markets for biobased products. The program was created by the 2002 Farm Bill (legislation), and expanded as part of the 2014 Farm Bill. Thus, as it is determined by the Secretary of Agriculture, biobased products are commercial or industrial products (other than food or feed) composed wholly or in significant part of biological products including renewable agricultural materials (plant, animal, and marine materials) or forestry materials. The goal of the USDA BioPreferred® programme (by enforcing the mandatory procurement of bio-based products) is to reduce the country's dependence on petroleum, increase the use of renewable agriculture resources, and reduce the adverse environmental and health impact (De Groene Zaak, 2015).

According to the USDA Report released in June 2015, the biobased economy contributes around 369 billion USD to the U.S. economy each year, supporting 4 million jobs directly and indirectly by the biobased economy.

By using laws and regulations, offering financial support or applying penalties and using the purchasing power, government policies and actions are important in boosting the transition towards circularity. Although there is no unique action plan for governments to undertake while going circular, still, there can be given some general recommendations (figure nr. 2) that were undertaken from a study conducted by the Dutch sustainability Business Association in 2015 (De Groene Zaak, 2015):

Step 1: Understand the necessity of the circular economy. It is important to answer the question why the current model can't be sustained, and what are the fundamental

changes that need to take place to abandon the linear economy. Also, it is important to understand the opportunities that a circular approach will deliver to the whole country.

Step 2: Lead by example. The most powerful way to show the need for circularity is to start acting. Thus, the government gives a strong signal to the market that it takes the transformation seriously.

Step 3: Map circular economy principles to local context. There should be defined which sectors and policy areas are most affected, or that are bursting at capacity; materials that are susceptible to price and supply fluctuation; or overpopulation in urban areas causing traffic and high residential pressure. Based on this first local context assessment, certain strategic areas can be identified.

Step 4: Create a comprehensive vision or strategy. Although not all implications and changes will be clear at this stage, it's important to draw a long-term vision on circularity and to define long-term goals and a clear roadmap for the next years.

Step 5: Engage stakeholders. It is important to start the dialogue with all stakeholders in order to involve them in an early stage. Within this dialog important ideas will be delivered bring solutions and provide input for the overall vision, strategy and policy instruments. This will create involvement, buy in, and produce the most promising solutions on behalf of all actors involved in transformation process to circular economy.

Step 6: Choose instruments and Start initiatives. After the identification of the priority sectors and stakeholder engagement, the most effective policy instrument should be created to promote a circular economy. As mentioned before these can be in form of regulations, fiscal measures, grants, partnerships or public procurement. The government can decide which instrument is most efficient considering local context. Once it has been decided in which sector and with what instrument, the circular economy will be implemented, effective initiatives should be performed. At the beginning, the “Start Small, Scale Fast” approach can be used, or more simply, these can be in form of some standalone projects. It is important the results to be measured and evaluated over time.



Figure 2. Becoming a Circular Government

Source: De Groene Zaak, 2015, p. 28.

Step 7: Monitor, adjust and scale. The transition towards the circular economy will take several years, during which the progress should be measured and the roadmap adjusted. Initiatives that prove to be successful, will be implemented on large scale. Step by step the circular economy will be put in practice (De Groene Zaak, 2015).

Different countries have implemented diverse mix of policies to support the transition to a circular economy. Some have created policy initiatives that comprise a long-term and overarching strategy that is totally dedicated to developing a circular economy. This is the example of the Netherlands, which has opted for such an approach. Also, the Dutch government has committed to implement a circular economy in a holistic and long-term strategic way. On the other hand, other countries engaged to implement a circular economy as part of a general long-term strategy for the economy, or sustainable development or energy development. France and the regions of Catalonia and Flanders have such a general long-term strategic approach. The federal governments of Belgium and Germany have opted for other, more short-term types of initiatives, which are dedicated to supporting the implementation of a circular economy for 2019/2020.

Besides having different types of policies and varying time horizons, Governments also vary in visions of putting accents with regard to developing a circular economy. The emphasis varies from policy activities related to specific elements in the circular chain to measures focusing on the whole value chains. For example, the Netherlands has chosen to focus on implementing a circular economy throughout the entire value chain, without focusing on elements in the circular chain. The Government has designated five economic sectors in which at least 50% reduction of primary raw materials (minerals, fossil and metals) use should be accomplished by 2030, and which should become completely circular by 2050 (EEAC, 2017). This ambition applies to the value chain as a whole, including eco-design, consumption, waste separation and collection, waste policy, specific chains, finance and business models, knowledge and education.

The other countries like Belgium, France, Germany have a strategy focused on a variety of elements in the circular chain by providing eco-design strategies, introducing green public procurement, combating (food) waste, setting reduction and collection targets, introducing targets for resource efficiency (predominantly in the construction, water and energy sector). Although Hungary and Ireland have no overarching strategy, the policy focus of these countries does not differ much from that of France and Belgium, for example, focusing primarily on waste, recycling and resource efficiency. In both Hungary and Ireland, there has been a broadening of scope and an increase in the variety of initiatives and focus areas in several of these countries' policies regarding waste and recycling.

A transition to a circular economy nevertheless induces certain trade-offs that require careful consideration and administration on behalf of authorities. In the absence of a co-ordinated and strategic approach to the circular economy at national or international level, a risk might appear that some actors adopt harmful – activities under the umbrella of circularity, which in fact will bring about higher-value material use. For example, waste-to-energy initiatives using sub-standard burning practices might cause environmental and human health risks.

Challenges may also arise where circular actions involve serious shifts in resource-intensive economies. For example, circular approaches can produce risk job losses among those engaged in resource extraction and primary processing.

5. Conclusions

The transition to circular economic models promises important benefits in future for the global economy, considering the current and future challenges induced by the pressure exerted on global resources and growing insecurity supply. A circular economy in which everybody is responsible for using resources and energy more efficiently, as well as for consuming less in total, could represent the solution to the problems existing today in Europe and for the entire world economy.

Transition to a circular economy would reduce the global use of materials and energy, decrease the amount of hazardous chemicals, which contaminate the environment, and generate a variety of economic benefits through the creation of locally-based, stable employment for people. Many of these ambitious steps are achievable in the short-term, and the sooner they are implemented by Governments, the greater the benefits will be and the sooner the positive, cumulative effects of each of these changes will be multiplied, as well as economic, environmental and social benefits for communities.

The analysis of the Circular Economy practices has proved the limits of its implementation. As a result, it can be concluded that to date there is no government that developed a comprehensive approach to develop the transition plan to circular economy.

The vast majority of the governments are not yet convinced of the necessity of a circular economy. The (Northern) European and Asian governments are clearly ahead when it comes to forward steps in understanding and realisation, while elsewhere there is only a declaration of interest in circularity. The sense of urgency appears to be connected in the first instance to the level of import-dependence on raw materials (e.g., Japan, Europe) and environmental pollution (e.g., China). While emerging economies are still organizing the first steps in organizing waste reduction and resource optimizations programmes. In these countries, circular initiatives do exist but they are initiated and managed by the private sector. Also, governments give little attention to finance and fiscal mechanisms, as well as to technological and social innovations.

A circular economy will require Governments to promote policies that will favour the production of repairable, reusable and upgradable products. To encourage resource efficiency and zero waste, wasteful practices should be made more expensive in comparison with product service, maintenance and repair operations, which should become cheaper. This would require the Governments to use economic instruments in form of reduced taxes or tax allowances for repair, reuse and refurbishment businesses, and increased taxes on single-use and hard-to-recycle materials. Also, burning and landfilling recyclable or compostable materials should be banned. Public funding, including public procurement should be used primarily to fund prevention, reuse and recycling infrastructure. Deposit and refund schemes can be practical for educating citizens on the value of recycling and can be integrated within extended producer responsibility schemes.

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EXCHANGE RATE REGIME AND MACROECONOMIC STABILITY. A LITERATURE SURVEY

Ph.D. Student Patricia Amalia MERCEA (HANDRO)

University of Craiova, Romania

E-mail: patricia.handro@yahoo.com

Abstract: *Globalization and short-term capital inflow volatilities generate challenges for policies and countries, as well as for global and regional markets. An appropriate exchange rate policy tool, complemented by reserve accumulation, macroprudential measures and, when needed, capital control is some of the instruments that could produce effective safety nets and macro stability. A conclusion of our research is that flexible regimes are preferred by developed countries, with credible institutions that rely on deep capital markets. Emerging economies with unreliable institutions prefer stability as the fixed rate gives credibility and the macroeconomic stability can be achieved without best macro conditions.*

Key words: *Exchange rate, Exchange rate volatility, International Trade, Stable Growth, Macroeconomic stability.*

JEL Classification: *F43, F31, E42.*

1. Introduction

Due to globalization process, we are facing an increased transmission of shocks (monetary, commercial, solvency, liquidity, operations, cyber attacks). The strength of the economies as well as their choice for fixe or less rigide exchange rate is correlated with the development stage of the economy and other drivers summarised by IMF (1997). Most of the Emerging Markets Economies (EMEs) adopted inflation targeting, combined with controlled floating- as opposed to Advances Economies (AEs) that have opted for free-floating regimes.

The subject is particularly important given that the Mondial economy confronted high and persistent fiscal deficits, currency's war (devaluated currencies to enhance external competitiveness) and trade war. When fiscal policy is restricted by massive government debt and interest rate are very low, the economic policy purpose are moving toward reducing the exchange rate. Competitive depreciation is a zero-sum game because states try to steal their demand for each other.

2. Objectives

The paper identify the key role of international trade, assimetric shocks and financial sector development as transmission channel that might generate stability and more growth.

3. Methodology

We performed a literature survey based on previous studies that treated the subject of the relationship between exchange rate regimes and macrostability, based on the articles published on this area and working papers.

4. Analyses

Previous studies that focused on this subject find low evidence on the link between exchange rate and macrostability. Ghosh, Gulde and Wolf (2002) using an exhaustive dataset of one hundred forty countries find that inflation is lower and stable under fixed regimes but growth variation is almost the same under both regime (flexible or pegged). Furthermore Edwards and Levy-Yeyaty (2005) concluded that flexible exchange rate promote growth. Schnabl (2007) identifies three main transmission channels (trade, capital flows and macrostability) that transpose the exchange rate stability in more growth. Hussain et al. (2019) using a Non-linear Autoregressive Distributed Lag (N.A.R.D.L.)

model assert that the objective of macrostability is sustained by exchange rate management and strong currency.

Research Results and Discussion

This section focus on the overview of essential transmission channels that generate a stable growth and finally macroeconomic stability.

(i) Asymmetric shocks

Flexible exchange rates have been a necessary tool to cushion the economy with the impact of asymmetric shocks (Friedman, 1953). Mundell (Mundell, 1961) extended the theory of shock absorption (with the argument pro monetary union) McKinnon (1963) identify that small open economies that face nominal shocks prefer fixed exchange rate and the key role of the size of tradable sector. Stable exchange rate with foster investment and consumption environment through the welfare effect originate in macroeconomic stability. From this perspective, Mundell (2002, 1973) later works consider that in small open economies, growth is enhanced when there are low exchange rate fluctuations. Furthermore, Aghion (2009) assert that shocks are stronger in countries with underdeveloped financial system.

The recent literature asserts that the broad portfolio flows modified the traditional role of flexible exchange rate (shock absorbent), which become a transmitter and amplifier of financial shocks instead e.g. (Gabaix and Maggiori, 2015; Bruno and Shin, 2015; Carstens, 2019). Robust appreciation of exchange rate is associated with increased credit supply from external investors, lowering the bond yields and reverse mechanism action when exchange rate depreciates (Hofmann, Shim and Shin, 2019). Moreover, a sharp depreciation might sharply raise term premia, affecting financial stability. Recent studies identify external borrowing from both capital market and banks reinforce each other as the financial crisis was preceded by substantial credit expansion and keen appreciation of exchange rate (Borio, McCauley and McGuire, 2011; Borio and Lowe, 2002; Gourinchas and Obstfeld, 2012).

(ii) International Trade and investments

Eliminating the foreign exchange risk (volatility) and the transactional costs stimulate international trade. At the microeconomic level, volatility is transposed in additional transactions costs (IMF, 2004, 1984). Moreover, Fixed exchange rates increase international price transparency (indirectly) because consumers can compare more easily prices from different economies.

The macroeconomic measure of exchange rate impact is described by long-term fluctuations that affect the level of competitiveness for domestic export industries. The small open economies and even large, closed economy export is influenced by large exchange rate fluctuations (McKinnon and Ohno, 1997; McKinnon and Schnabl, 2004). How uncertainty disturb the trade option, its expected profitability, and the allocation of factors between tradable and non-tradable sector, was the future primary debate.

IMF (2004) conclude that there is no evident negative influence of volatility on trade excepting bilateral trade argued by the Asian crisis. Bacchetta and Van Wincoop (2000) consider that monetary stimulus in a country (exchange rate depreciation may not influence trade), because the increase in domestic demand may boost imports and offset the negative impact.

International macroeconomics focus on the role of competitive devaluation (undervaluation of currency) e.g. (Rodrik, 2008; Auboin and Ruta, 2011; Nicita, 2013; Bussière, Saxena and Tovar, 2012; Ozturk and Kalyoncu, 2009) assuming that it stimulate growth. The channel that contribute is the size of tradable sector (industry mostly).

However, US imports are less sensitive to bilateral exchange rate fluctuation (Gopinath et al., 2019).

Similarly, the macroeconomic theory describes the J-curve effects. E.g. P. Krugman (1991) explain the J- curve mechanism for long term USD devaluation from 1985s, Cairncross and Eichengreen (2003) describe the effects of sterling devaluation from 1967s.

The very recent literature underlines the role of USD as the dominant currency in global trade and emphasise that the strength of USD is associated with increase in global trade (Boz, Gopinath and Plagborg-Møller, 2017; Gopinath et al., 2019). Paradoxically, the competitive devaluation, dampened country exports (Bruno, Kim and Shin, 2018; Gopinath et al., 2019). Working capital for production chains acts as an incentive/contractor of the components of the value chain (Kim and Shin, 2012; Kalemli-Ozcan et al., 2014).

The conclusion is that volatility exerts a small negative impact influenced by the availability of hedge contracts, the production structure, the level of integration. However the traditional role of trade is diminished in our days.

(iii) Capital Markets

Mundell (1973), Mundell (2002) emphasizes the substantial role of capital markets that received an vital role in the exchange rate stabilization mechanism in our days (Aghion et al., 2009).

Fixed exchange rates (short term) might foster economic growth if transaction costs are removed (McKinnon, 2010). Without international capital market segmentation, debtors in EMEs win from lower interest rates (Dornbusch, 2001). The authorities have an incentive to stimulate these capital inflows (providing efficient financial supervision) in order to finance the current account deficit.

The capital markets development influences the foreign exchange intervention. Countries with highly developed capital markets intervene on the long-term exchange rate. In contrast, EMEs with undeveloped financial system perform long-term and short term interventions (Chmelarova and Schnabl, 2006).

5. Conclusions

Effect of the fixed and flexible rates on economic growth was investigated, and it was argued that stable exchange rates are associated with higher growth. The flexible regimes are preferred by developed countries, with credible institutions that rely on deep capital markets. Contemporary empirical studies further demonstrate that flexible regimes can act as a shock absorber in the event of trade tensions or global interest rate shocks without altering the asset sector or labour market. Also fixed exchange rates lead to higher growth in bilateral trade and have significant influences in stabilizing and reducing inflation. Emerging economies prefer stability as the fixed rate gives credibility and the macroeconomic stability can be achieved without best macro conditions.

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SUSTAINABLE DEVELOPMENT THROUGH THE DEVELOPMENT OF THE EDUCATION SYSTEM

Ana Georgiana CĂLUGĂRESCU
Valahia University of Târgoviște, Romania
E-mail: m_ana_g@yahoo.com

Abstract: Due to the increasingly visible changes, the faster progress and the changes in each person's conceptions, organizations must cope and try to reinvent themselves more and more often. There is no change without pressures from outside or inside, there is no change with chances of success from the project phase. Changes must be made gradually and aim to improve the process that is planned for a change. More and more change experts are interested in measuring change at the system level or organizational structure and comparing it with changing organizational culture. Many of the current changes are system changes and not organizational culture. However, change does not act as a unit. For this reason, change management is a dynamic and spectacular area. Although most changes are planned, there are quite a few cases where changes occur spontaneously, without prior planning, but which come to restore the balance of the organization.

Keywords: development, school institution, progress, change, system.

JEL Classification: Q01, I29, H12.

1. Introduction

Change is seen today as an evolution, progress of an institution or the staff of that institution. Due to the progress made by the society, the school units must be aware that without permanent change it cannot evolve. Poole and Van de Ven (2004, p. XI) consider that "change can take many forms: it can be planned or unplanned, progressive or radical, permanent or unprecedented". In summary, Adams (close to Garret, in Davies, Ellison, 1999) believes that these dimensions can be grouped, thus forming a matrix that defines the change: desired and planned; desired but unplanned; unwanted but planned; unwanted and unplanned.

The integration of young people in professional activity is gradually prepared, with the concrete contribution of the school and the family. These are added the influence and models from the informal environment of the young man, the media and various influences from the social environment. The aspirations that may or may not be in line with the company's offer at that time are also important (Păuș, 2006, p.169).

Most of the time, no change is desired, considering that things work as they should, and the first question of the majority is "Why is change necessary?". To answer this question concretely, a broad analysis must be carried out on the whole system, found the weak points and proposed innovative ideas that will develop the organization.

Child (1984) highlights several aspects that lead to a change within the organization, including management overload, inefficient integration, insufficient innovation of the organizational system, weaknesses of control.

Although many managers do not consider it an issue for employees to work as hard as possible, numerous studies have shown that an average work rate is required for efficiency in the workplace. The more tasks that have to be performed that require a high volume of work, and can also take up the free time of the employee, the more there is the chance that the employee will have low efficiency and the expectations for him will be well below the requirements.

Turning to the second aspect, that of insufficient integration, we can see that it is a fact that is increasingly found within institutions. To make the managerial act more efficient, the manager is not enough to be just a manager but a true leader. It is not enough for an institution to have a good management plan and detailed objectives, it is necessary for people to lead to the fulfillment of each objective and this can only be achieved by

harmonizing the relations between managers and employees, avoiding conflicts and In the management of the company, the research and development activity plays a decisive role, underlined that the level, the rhythm, and the directions influence all the aspects of the economic and social life of humanity and in particular the productivity of the work, the level and structure of the production, the efficiency of the whole economic activity - social (Petrescu, 2019, p.15).

The change does not just mean new planning but integration of everyone in the respective system, an efficient collaboration both between the employees and between the people inside and outside the institution. The change cannot take place in a very short time, it takes a long time, every step, every moment of it, being planned. Change cannot be called unless it is desired and implemented by each employee unless it is admitted by the people who come into contact with the organization and depend on it. individual work.

The change of the organization has an impact on the external environment, and most obviously on the community. The dissatisfaction of the individuals inside also affects the community through existing interpersonal relationships but also the organization as a whole at least changes its interaction with the society, this can give rise to social risks with an impact on the security of the community (Cămărășan, 2017, p.99).

In a competitive system, all companies cannot know the success and all the strategies are good. A strategy is neither good nor bad, but only better or worse than that of competitors (Petrescu, 2019, p.22).

The next question we ask is "How should change be made?", The answer to these questions including the moments of change. For any change, the starting point must be identified and after establishing the stages to be completed. K. Lewin (1958) identifies the stages of change as thawing, changing, re-freezing.

He considers that the moment when the need for change is realized is that of defrosting. The awareness that something must change within the organization for good development of it is the moment of beginning, the one that must be permanent within us. The stage creates for the employees, restlessness, tension and an unspeakable theme.

The next moment described is that of the actual change, a change that must be carried out gradually through small steps, through transformations in the level of the behaviors, attitudes, skills or the full responsibilities of the employees. For the success of this change, all the planned elements must be respected, the whole attitude must be changed and acceptance of the change in the maximum percentage.

Re-freezing is the final stage described by Lewin and it is stability, it is the stage of clarification at the level of the organization, of acceptance and continuous implementation of new visions.

French, Kast, and Rosenzweig (beside Mullis, 2004) describe the three above-mentioned tapes through eight components of change: Problem identification; Gathering the necessary data; Diagnosis of the problem; Action planning; Implementation of the program; Follow - up and stabilization; Impact assessment; Conclusions from the trial.

As can be seen, each step has its importance, each having an important role in driving change. Some aspects change more easily and others more difficult, it is important that once a change is planned and its implementation begins, it will not be abandoned until it is finalized. Even if some obstacles are encountered during the implementation that describes a failed change, the conclusions can be drawn only after the implementation of all the points concerned.

The evolution of humanity in the age of globalization implies the cooperation of the main actors, but also a fundamental change of the system of international humanitarian law and the international security institutions (Petrescu, 2018, p.47).

2. Leadership and change

Leadership refers to intra- or intergroup communication. This is influential in communication. Fundamental, leadership and influence are synonymous (Tellier, 1999, p.126).

By leadership, we mean "the ability of a leader, of a management framework to determine a group of people to cooperate with him in achieving an objective based on their powerful involvement" (Nicolescu and Verboncu, 2000, p.516).

Therefore, to implement a change program at the level of an institution, a leader is needed to carry out the entire management plan. It does not matter how well the change is planned, how detailed are the actions that must be taken if the person in charge of the change cannot determine the subordinate personnel to act in the same direction with him.

The basis of leadership is "team spirit, which is the result of the integration of four processes: building trust between the people involved; establishing a mission and purposes to which people can join; the development of participatory decision-making processes; strong individual and group motivation to contribute to the achievement of common goals" (Cornescu, Mihăilescu and Stanciu, 2003, p.221).

Jacques Clement considers leadership as the process by which a person sets a goal or a diversion for one or more persons whom he determines to act together with competence and discipline to achieve it (Constantinescu, Ungureanu, Tarara, 2000, p. 405).

Leadership means the ability of the manager to make the people he works with accept and implement his ideas, to have a shared vision of the whole organization. Prodan considers leadership as a process of mobilizing, encouraging and training individuals, so that they can contribute to what is best in achieving the desired goals (1999, p. 84).

Among the general characteristics of an important leader are (Cornescu, Marinescu, Curteanu and Toma, 2003, p.163): They can orient people, creating a vision that they communicate to them; They inspire confidence and trust in themselves; They have enough experience to look at mistakes as another destruction from the path to success; They make people feel stronger around them. People feel more competent and confident in themselves, thus finding work more interesting and challenging.

Leadership as a process of influence depends on many factors, both external and internal. You cannot be a good leader if you do not have certain inherent qualities and at the same time, you cannot become a leader if you do not have the basics learned. It is a circle of the existence of a leader, each characteristic depending on the other. To successfully carry out a project or function in general, it is necessary to use all personal attributes (intelligence, the flexibility of thought, personal attraction, ability to understand, openness to others, etc.). Many experts believe that the exercise of leadership depends largely on the ability of the leader to use different forms of power to influence the behavior of subordinates (Zorlețan, Burduș and Căprărescu, 1995; Stăncioiu and Militaru, 1998; Cornescu, Mihăilescu and Stanciu, 2003).

From the above, we can express the fact that a true leader requires a true change. It is not enough to change the mentality of the leader and his vision, all staff must have a new vision, a new goal and a desire to carry out the new objectives agreed with the leader.

3. Organizational development

Flamholtz and Randle (2015) consider organizational development as "the process of planning and implementing changes at the level of the entire capabilities of the organization to increase its operational efficiency and profitability" (Flamholtz and Randel, 2015, p.26). Therefore, the organizational development represents the change of the whole system, its improvement and the long-term integration of the organization according to the

changes in the society. The development represents a positive change of the organization, it is the change that brings visible progress that must be maintained continuously.

Researchers have identified numerous methods and techniques for developing the organization, including the methods outlined below.

Training laboratories for sensitization

These laboratories are part of the traditional methods of development that are being used today. These are meant for both individual development and development at the working group or organization level.

Researchers K. Benne, L. Bradford, R. Lippitt, believe that these laboratories can achieve the following objectives:

Raising participants 'awareness and awareness of their own and others' emotional reactions;

Developing the ability of participants to perceive and learn from the consequences of their actions, paying attention to their own and others' feelings;

Stimulating the clarification and development of own values and goals consonant with the scientific approaches of the problems regarding personal and social decisions and actions;

Developing theoretical concepts and insights that will serve as tools for relating the values, goals, and intentions of action consistent with both the interiority of the individual and the requirements of the situation;

Meeting the achievements of the efficiency of the behavior with the participants' living environment (beside Luthans, 1985, p.629).

The laboratories are created by bringing together 12 to 15 members, either from the same department, different departments or even different organizations. R. Baron (2007) supports this method through the following arguments: Under normal conditions, the clues are not very open and honest with each other; The lack of openness blocks important insights about oneself and others; These insights can be encouraged if individuals are placed in a communication environment that has as a rule openness, direct communication.

Team-building or team building

Vocational training programs can be formal or informal and highlight the number and categories of the personnel concerned, the thematic content of the activities, proposed training methods, preliminary programming of activities, proposed training models, preliminary programming of activities and estimated costs (Gherguț, 2007, p.65)

Team building is essential for the development of any organization. Researchers in the field have noticed that through the efficient construction of the work teams there are added many benefits to the company, such as increased productivity, motivation, decreased probability of leaving the job, etc.

Team building represents "a long-term intervention, based on data in which teams work experientially through their structures, goals, norms, values and interpersonal dynamics to increase their effective team skills" (Liebowitz, DeMeuse, by Jex, Britt, 2014, p. 535).

To build a group, it is a time-consuming process that requires time, patience and knowledge about the group. There is a risk that, when we consider that we have just formed a homogeneous group, there are other dangers: "group thinking" - a team too united can lose all the positive elements brought about by cohesion because elements such as the illusion of invulnerability, unanimity or justification of mistakes appear (Janis, alongside Hetzel, 2013); "Groups tend to take more risks in their decisions"; and so on with all these impediments, management is more effective when applied as a working method to team

building. Several people who work as a whole, as a single individual, represent a desire to be applied in our activity.

Forsyth (1983, p.448) states that "like all other groups, teams are influenced by characteristics (norms, roles, structure, size, goals) and processes (pressure to conform, power, leadership, deindividualization) (.. .) but the teams have their specific characteristics at the same time.

Investigations for obtaining feedback in organizations

It is the technique for identifying the situation of an organization, finding problems if any and solving them. The method uses both questionnaires and interviews or focus groups. The data in the questionnaires must be confidential, only so there is a security of those reported by the investigated ones.

The method involves two distinct stages. The first is designed to gather information about the state of the organization. In the case of the standard questionnaire, Luthans (1985, p. 635), citing C. Taylor and D. Bowers, proposes the following areas of research:

Leadership: Managerial support; Targeting goals and emphasizing them by managers; Facilitation of work by managers; Support for "equals"; Targeting goals and emphasizing them by "equals"; Facilitating work by "equals"; Facilitating interactions at the level of "equals"

Organizational climate: Communication with the company; motivation; Decision making; Coordination between departments; Management at a general level

Satisfactions: The satisfaction of belonging to the company; Job satisfaction of the supervisor; Satisfaction in one's work; Salary satisfaction; Satisfaction with the activity in the department in which it is included.

This first step is preceded by the gathering of information about the problem situation.

The second stage is that of collecting and interpreting the received data. The interpretation made on the collected data must be correct and realistic.

Specialized studies show that the method has a positive impact on employees and management in each institution. It is important to know the managerial act, to find out the stage in which the institution is and to improve its weaknesses.

The circles of quality

The method is used for organizational efficiency, implicitly attracting its development. Armstrong considers quality circles to be "groups of employees, usually led by a supervisor, who meet voluntarily and generally in their spare time to discuss issues facing them in quality assurance or other urgent goals" (Armstrong, 2001, p.117).

Meetings can be held periodically (weekly) for an hour, flexibly and openly. People from the problem area and from outside it can be integrated into the group, the latter having an external vision and offering an objective solution.

R. Baron (2007) details the phases of using the method in the following sequence: The key issues are identified in the discussion groups, which interfere with the efficiency or the quality; A careful analysis is performed and an attempt is made to identify specific solutions; The recommendations are transmitted to the management team, for analysis; In the case of acceptance, the solutions are implemented; if not, the objections are submitted to the group that the solutions cannot be implemented; In the case of implementing the solutions, the success of the implemented solutions is analyzed.

4. Conclusions

Today's society is in full development, with detailed knowledge of each phenomenon and the discovery of the most sophisticated technologies. Due to these

changes, the school must be in permanent development, to keep up with the development of society. New school programs are meant to help students, parents, and society at large.

The learning outcomes are expressed in the knowledge, understanding and correct interpretation of the main changes produced in the sciences, especially the conceptual - methodological - logical dimensions specific to the individual learning, which take the form of the basic and transversal competences, of the empathic communication of the formative relationships, of the projects. of medium and long term training (Neacșu, 2019, p. 99).

The education reform is planned following numerous studies, carried out by specialists in the field, which have concluded that both school programs and framework plans need to be changed. They planned the changes to be made and outlined the expected results. The implementation of the new school programs was made gradually with the introduction of the zero class and then by sliding these programs were changed every year. Their purpose is to decongest the material from the final years, which was quite large and difficult and to integrate each young person into the labor market so that there are no cases of dropping out, inadequate work or even worse, at school. If the changes made are positive for education, it can be observed only after their implementation is complete.

Employee recruitment and integration into the organization are not sufficient if the organization does not design a long-term development design. (Pânișoară, 2016, p. 259).

To make a change within the education system, it is not enough to change the programs or years of study. The change must take place in each school unit, which has come to help students integrate into the labor market and provide them with a favorable environment from which they can learn both new things and information, but above all beautiful behavior, a desire to succeed in everything. what I intend. Each school institution is free to choose the managerial mode but it is not important to be a good manager, it is important to be able to coordinate the other colleagues so that the educational activity is not a simple job but a passion from which all those involved have to gain.

The principals of the school institutions must be in continuous personal development and research of the most effective methods for attracting qualified and dedicated people to the chosen profession. This communication between the manager and the other colleagues must be a priority for everyone. Each responsible person can be inspired by the models for development at the level of an organization, the school unit is regarded as an organization as a whole.

To successfully make the proposed changes, there is a need for capable leaders who must truly make changes. It requires both new programs and qualified and experienced people who can successfully cope with new challenges. Therefore, I believe that, for the development of the Romanian school, there is a need for professional development and continuous improvement of each teacher.

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ACCOUNTING METHODS AND PROCEDURES AMONG TRUE AND FAIR VIEW, MANAGEMENT INTEREST AND FISCAL INTEREST

Associate Professor, Ph.D. Dorina LUȚĂ

“Constantin Brâncoveanu” University of Pitești, Romania

E-mail: dorina_luta@yahoo.com

Abstract: *The article below is my intention of addressing some important issues regarding the role of accountancy as the main provider of economic information to business entities, and taxation as a system designed to collect taxes, fees and contributions through a specialized body. Business entities operate in an accounting system connected to or disconnected from taxation which can influence managers' decisions. The accounting policy is elaborated and assumed by an entity's management based on accounting principles. When determining an accounting policy, although the choice of one method or another is generated by the "need for truth," the entity's management interests as an object of accounting reflection and taxation cannot be avoided either.*

Key words: *accounting policy, choice, accounting principles, management interest, true and fair view.*

JEL Classification: *M41.*

1. Introduction

Business entities' activity aims at the following main goals: to make a profit and to meet the needs of a certain group of buyers. Failure to achieve either of the goals even temporarily may lead to their disappearance from the market. Additionally, it must take account of the conditions of the environment where it operates. In this context, accountancy must fulfil its mission as main provider of economic information, its main objective being to present: "a true, fair and full view" of an entity's financial status and performance, in line with the principle of neutrality, of the truth imposed by economic and financial facts.

To a shareholder or a partner as owner, a company means an investment, and the information they expect is to maintain their ability to finance the amount they have invested.

Accounting information is useful in making future decisions for the company so that the business entity management can ensure business development, profitability, profit growth, value added analysis, self-financing ability.

2. A true and a fair view

A *true and fair view* of a financial status or statement is the ratio between the assets, liabilities and equity of a business entity, as reported in its balance sheet. Information about the economic resources controlled by the business entity and its past ability to modify those resources is useful in order to anticipate the ability to generate cash or cash equivalents in the future.

The information about financial structure is useful for the application of certain accounting policies that allow the observance of sound management principles when using funds; when anticipating future lending needs; how profits and cash flows will be distributed among the stakeholders within a business entity as well as when estimating the chances of the business entity to receive any financing in the future.

Another important issue is the entity's liquidity and solvency. Liquidity and solvency information is useful for anticipating the entity's ability to meet its outstanding financial commitments. Liquidity refers to its cash availability in the near future, after taking account of the entity's financial obligations related to the period. Solvency refers to its cash availability for a longer period of time during which outstanding financial commitments are to be met.

The performance of a business entity represents its management focus and aims at: cost effectiveness, efficiency and efficacy.

For one thing, one should not overlook the fact that business entities operate in an accounting system connected to or disconnected from taxation, which can influence the decisions of managers. Unlike accounting rules, tax rules are not subject to the presentation of a true and fair view of business entities, but rather aim at promoting or impeding certain activities.

An accounting policy is drafted and assumed by the management of an entity based on accounting principles. In an economy which is disconnected from taxation, the adopted accounting policy can more easily satisfy the provision of true accurate information which by certification is credible for all users and, according to the fundamental accountancy objective meet the need for truth. In regulated accountancy, the accounting policies and procedures are based on both accounting principles and a normative regulation system. The reference system for the preparation of accounting policies accepts alternatives regarding accountancy-related registration and evaluation, namely different methods of evaluation and calculation of financial outcomes and statements.

When laying down an accounting policy, although the choice for one method or another is promoted by the “need for truth”, the management interests of the entity as an object of accounting reflection and taxation cannot be avoided either. Thus, while a “true and fair view” involves providing a true financial statement and outcome, the entity must also monitor its management focus when achieving its cost structure that will make it competitive, along with its fiscal interest in minimizing the taxes paid.

Starting from such facts, one can estimate that from the perspective of a “true and fair view”, business entities must take account of the irreversible or reversible impairment of various assets in order to present a true financial statement and outcome. However, reporting the impairments implies affecting expense accounts which will set the cost of production, so that reporting an impairment becomes an important lever in determining the accounting result. Moreover, taxation only partially recognizes depreciations and not at all impairment adjustments as being deductible, thus influencing taxable amount in its favour, with implications for the “true and fair” presentation: increased tax liabilities and the treasury that must bear an oversized tax.

It is found that the reporting of asset depreciation can be a conflict of interests considering the management and fiscal interests, with repercussions upon the true and fair view. Under such circumstances, starting from the limits of accounting principles/conventions, accounting information producers can resort to various ways to “shape” a financial statement and an accounting result until “distorting” them. The practices used in this respect are elegantly formalized under the name of “accounting policies”, “outcome adjustment policies”.

However, accountancy as a science, as an art in the economic decision-making gives the lawful possibility to choose the variant that best satisfies the company’s interest without affecting the goal of attaining a “true and fair view” of the financial statement, status, and profit and loss account.

In the event of an irreversible impairment, legislative regulations on the methods for depreciating depreciable assets may have a significant impact on financial decisions regarding the investments of economic operators, given that, along with its market “competitiveness”, investment interest must be a permanent concern when adopting an accounting policy.

It can be said that, due to the tax benefits generated by the depreciation policy adopted by an entity, under the prerogative of the legislative framework, it can improve the foreseeable profitability of investment projects. The benefits that could ensue from

adopting a certain depreciation policy are closely linked to the favourable tax effects it generates. Choosing a certain depreciation regime under the same financing conditions has a different effect on the profitability of investment projects.

Below are the advantages that a depreciation method brings to an entity with higher expense rates in the first years – the accelerated depreciation, the degressive method compared to the linear method.

Example: On 1.01.N, S.C. Alfa S.A. has new equipment worth 2000 thousand Lei, with the duration of operation of 5 years. In order to compare the data, it is assumed that every year the entity raises a gross profit of 1200 thousand Lei before the depreciation inclusion, the profit tax rate is 16% and every year, the profit is distributed as dividends in the proportion of 40 %, with the remaining percentage at the entity's disposal for development.

Comparative Analysis of Depreciation Methods at S.C. ALFA

Thousand Lei

Years	Linear depreciation	Accelerated depreciation
1	400	1,000
2	400	250
3	400	250
4	400	250
5	400	250
Total	2,000	2,000

Economic calculation is made per each year.

Economic calculation for the first year is:

Thousand Lei

No.	Indicator	Linear depreciation	Accelerated depreciation	Conclusions
1	Gross profit before depreciation inclusion	1,200	1,200	
2	Depreciation	400	1,000	
3	Gross profit after depreciation inclusion (3=1-2)	800	200	
4	Profit tax (4=3*16%)	128	32	96 tax saving
5	Net profit (5=3-4)	672	168	
6	Self-financing ability (6=5+2)	1,072	1,168	
7	Dividends distributed (7=5*40%)	269	67	102 dividend saving

It can be seen that the total savings of the entity after using the accelerated method compared to the linear method is 198 thousand Lei. That money can be used by the entity to grow through new investments. In order to simplify this demonstration, one assumes that the resulting savings are deposited in a bank at a 28% interest rate per annum.

It results that after one year (in the end of the second year) the value of the accumulated capital will be $198 \times 1.28 = 253.44$ thousand Lei.

In the end of the second year, the economic calculations are:

No.	Indicator	Linear depreciation	Accelerated depreciation	Conclusions
1	Gross profit before depreciation inclusion	1,200	1,200	
2	Depreciation	400	250	
3	Gross profit after depreciation inclusion	800	950	
4	Profit tax	128	152	Additional payments of 24 thousand Lei
5	Net profit	672	798	
6	Self-financing ability	1,072	1,048	
7	Dividends distributed	269	319	Additional payments of 50 thousand Lei

Therefore, in the end of the second year, 74 thousand Lei are paid in addition (the accelerated method compared to the linear method). Those additional payments are made from the capital deposited with the bank. It results that, in the end of the second year, the balance remaining at the bank is $253.44 - 74 = 179.44$ thousand Lei.

The calculations shown in the table for years 3, 4 and 5 are similar.

Year 3: Money accumulated in the bank: $179.44 \times 1.28 = 229.68$ thousand Lei;
Additional payments: 74 thousand Lei

- Balance: $229.68 - 74 = 155.68$ thousand Lei

Year 4: Money accumulated in the bank $155.68 \times 1.28 = 199.27$ thousand Lei;
Additional payments: 74 thousand Lei

- Balance: $199.27 - 74 = 125.27$ thousand Lei

Year 5: Money accumulated in the bank $125.27 \times 1.28 = 160.35$ thousand Lei;
Additional payments: 74 thousand Lei

- Balance: $160.35 - 74 = 86.35$ thousand Lei

- By using the accelerated method compared to the linear method, the entity raises 86.3 thousand Lei for those five years provided that the additional money raised in the first years is used efficiently, capitalized and not used for immediate consumption;

- The principle of a good finance specialist is confirmed: an entity must try to collect its receivables as soon as possible and negotiate the payment terms for its non-performing debts for as long as possible;

- For each depreciation method, the sum of the net profits raised and the self-financing abilities is the same, so that if the company does not efficiently use its savings obtained in the first year, it will not obtain overall positive results, except maybe the financing inability;

- The state budget collects the same tax, irrespective of the depreciation method used by an enterprise:

▪ linear depreciation: $128 + 128 + 128 + 128 + 128 = 640$ thousand Lei

▪ accelerated depreciation: $32 + 152 + 152 + 152 + 152 = 640$ thousand Lei.

The state budget collects less tax in the first year alone. Yet, by leaving a sum of money at the company's disposal, it basically finances company activity, waiting for it to

develop, so that in the future the tax calculation base will increase, alongside increasing the budget revenues.

Regardless of the depreciation method used by a business entity, depreciation brings it new financing sources reflected in its self-financing ability, and if the depreciation methods with higher expenses are applied during the first years, it manages to create itself an economic advantage. Accelerated depreciation is particularly favourable for the entities that have to a lesser extent chose loan equity financing. The favourable effects of accelerated depreciation may also result from the positive impact on capital risk mitigation. Capital risk arises both due to uncertainty about the actual level of physical wear and tear, and to moral wear (for which subsequent technological innovations would also cause uncertainty about replacing the equipment).

Business entities must choose to set the useful lives, having the following possibilities: setting the useful lives of fixed assets in accordance with law no.15/1994; setting useful lives other than those provided in law no.15/1994. Assessing the normal service life must provide the entity with a structure of costs and tasks to make it competitive.

As regards the depreciable value from a tax perspective, it is interesting to highlight the assessment of fixed assets upon entry and their implications on the company's management. The inclusion or non-inclusion of expenses incurred purchasing and commissioning in the purchase cost or production cost may influence the tax outcome. Overestimating or underestimating the costs has direct implications for the "true and fair view" of a financial statement. Since the total cost elements are spread within various accounts, the former can be used for undervaluation or overvaluation, but especially for overvaluation in order to limit the importance of losses.

A (linear, degressive, accelerated) depreciation method is chosen according to the company's objectives, "aggressiveness" in approaching tax management and, of course, to the shareholders' decisions. It may be revised whenever it no longer corresponds to the manner in which a tangible asset in question generates future economic benefits.

3. Conclusions

Divergences between accountancy and taxation should be removed because the two meet in the same reality, with the economic entity being the main creator of wealth, and also the participant in the distribution of such wealth. Taxation must be interested in the stability of business entities, in their future, because their existence is linked to the achievement of its revenues. In a business entity, tax management aims at harmonizing the management and fiscal concerns in detecting divergences, for the benefit of the entity itself, for a true and fair view that will serve all users.

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EFFICIENT ENTREPRENEURSHIP EDUCATION THROUGH INITIAL EDUCATION AND LIFELONG TRAINING AMONG EMPLOYEES OF AN ORGANIZATION

Professor Ph.D. Constanța POPESCU

“Valahia” University of Târgoviște, Romania

E-mail: tantapop@yahoo.com

Ph.D. Georgeta ANDRONACHE (GOGEANU)

“Valahia” University of Târgoviște, Romania

E-mail: g_gogeanu@yahoo.com

Ph.D. Antoaneta Roxana SURCEL (GEORGESCU)

“Valahia” University of Târgoviște, Romania

E-mail: rox40rox@yahoo.com

Abstract: *The entrepreneurship does not imply a specific subject to be studied as part of both initial education and lifelong training. With reference to entrepreneurship as a key skill, this may be seen as a teaching method, in which the main role is played by experiential learning and activities specific to projects. In practical terms, the teacher, the one who lays the foundations of all and any type of learning, does not provide students with answers, but helps them to learn, research and identify the correct questions and the best solutions to solve the given situations. The data obtained are the result of a questionnaire applied on a representative sample of teaching staff in the pre-university education in Dâmbovița County, teachers who carry out their activity in academic, technology and vocational high schools. They were used to outline an overview on developing an entrepreneurship education of the employees of an organization through efficient initial education and lifelong training.*

Keywords: *entrepreneurship, entrepreneurship education, human resource management, education and professional growth.*

JEL Classification: *M53, J24.*

1. Introduction

An incursion in the philosophical world reveals us the fact that man is present in all and any discourse, every philosophical system, trying therefore to picture the human miracle. For example, Aristotle or Kant had a romantic – philosophical outlook on the human being, whereas Marx, Keynes or Galbraith have a realist approach on the extent to which the force of such human being should be administered and distributed in order to generate progress. Consequently, man is the source of the competitive advantage within all organization and this is what all later management researches are to demonstrate.

As dimension of general management, human resource management is expected to ensure that the organization obtains and maintains the workforce employed well trained. The cultivation and the development of employees' skills should constitute a priority even more so in the context of the universalization of the workforce. This means that actions are required in order to identify, assess and meet people's needs, consolidating and developing their skills, their potential, the contributions that they make towards achieving the objectives planned, the capacity to integrate professionally etc. (Armstrong, 2006).

Consequently, we refer to orientation and integration of new employees as well as to inclusion of different types of training in organizational policies. The orientation is the first step to help a new employee to adapt at their workplace. This is a method to help the new employees to get acquainted to the particular aspects of their workplace, issues regarding remuneration, work hours, norms and expectations of the organization. The assessment and the improvement of the set of knowledge and skills of each employee lead to increase of the value of the organization and improvement of one's individual career prospects. The programs intended to form and train employees ensure both update and upgrade of skills and offer employees and organization the guarantee that they can

successfully comply with the requirements of their position and not only that. These arguments support the idea that all organizations should put the spotlight on professional growth, should provide training towards acquiring new skills by employees, skills which are necessary so as to adapt to the new challenges of the future society, on the one hand, and as a method to monitor the performance of human resources, on the other hand.

By particularizing, the school is par excellence a teaching organization. It is required to operate significant important mutations at the education level, as education becomes *a process by which the human being is universalized, is brought together on the coordinates of the multiplicity and the value variety* (Cucoş and Bălan, 2008). In the current multidimensional context, marked by challenges of socio-economic, demographic, environmental, technological nature, training one's own personnel represents the key to maintaining and developing educational institutions, and the society, as a whole, through the results materialized in students' skills and performances.

Given the long-term strategic objectives of the EU policies, of which we mention here the improvement of the quality and efficiency of the education and professional training as well as enhanced creativity and innovation, including entrepreneurship, it is necessary to harmonize projection and reality in the system of pre-university education, at all levels of education and professional training.

Formation and professional growth of the teaching, managing, counseling and control staff involve some particularities and specific finalities of which we will take into consideration throughout this empirical research only the acquisition of some complementary skills by which the category of the activities which may be provided in the current activity is extended, i.e. entrepreneurship education, development and expansion of transversal competences regarding interaction and communication with the economic environment, assuming responsibility on development of entrepreneurial skills among future employees.

2. Entrepreneurship education in pre-university education in EU

Education plays an essential role in acquiring knowledge and in forming skills and attitudes by each and every future employee. The European Parliament and the Council Recommendation on key competences for lifelong learning includes sense of initiative and entrepreneurship. According to the document abovementioned, this key competence refers to the capacity of a person to turn ideas into action. Furthermore, it includes creativity, innovation and risk-taking, as well as the ability to plan and manage projects with a view to meeting goals. It supports the persons in their everyday life, at home and in society and also at work. It helps them to become aware of the context of their activity and to find themselves in the situation so as to take advantages of the opportunities when they present themselves. This represents a foundation for the specific skills and knowledge necessary to those who start or contribute to a social or trading activity. This key competence should encompass the awareness of the ethical values and the promotion of good governance. The goal of the entrepreneurship education is to develop general skills (adaptability to given situations, self-confidence, creativity etc.), and business-specific skills. Therefore, the sense of initiative and the entrepreneurial spirit combine creativity, experiential learning, formation of skills and trigger a change of mentality. The more intense the exposure of students to experiences of entrepreneurial learning is, the more inclined they are to take into consideration entrepreneurial ideas and opportunities at a given time in the future. The consolidation of the entrepreneurship education in schools will have a positive impact on the entrepreneurial dynamism of modern economies. In addition to the fact that the entrepreneurship education contributes to the creation of some new businesses, it turns the young into persons who are more involved and more

enterprising in what they do within the organizations existing in the public or the private sector or at social level.

In this respect, the educational policy on innovation and entrepreneurship has to be implemented in relation to each subject taught in schools and to be included in the teaching methods approached and activities carried out by the teacher, on the one hand, and with regard to the abilities created for students, 21st-century-specific abilities necessary for the adaptation to our ever changing world.

In addition to the positive effects declared (enhanced school involvement, creation of jobs, economic growth, increase in the resilience of the society), the implementation of this idea entails significant challenges (insufficient education of teaching staff, lack of time and resources, lack of a strong leadership and of good governance at the level of educational institutions, unclear national policies in this sector etc.). Some approaches consider appreciative that teachers are intrinsically entrepreneurs as they empathize in order to understand the needs of their “clients”. They show constant interest in improving “services” provided and persevere on a daily basis in order to overcome obstacles and face up to challenges concerned. Nevertheless, the capacity to enterprise quantified by identifying and exploiting opportunities, by planning and managing creative processes, by possessing creative abilities (imagination, critical thinking, capacity to solve problems), the capacity to communicate in an efficient manner, to mobilize resources, to assess the ideas of other people, to manage uncertainty and knowledge behaviors of one’s own aptitudes, motivation, perseverance, are attributes that are absolutely necessary for every teacher to have in order to be able to conduct a coherent process of entrepreneurship education. It is difficult to state the extent to which these are inborn and the proportion to which they are educated. This is the exact reason why the teachers need both efficient education and a lifelong training which should support understanding of conceptions and approaches in the matter of entrepreneurship education, provide them with instruments that are useful to the exchange of good practices within the framework of some efficient training networks. It is training that models, transforms, values teachers and equips them with the capacity to use a project-based approach, to carry out project-based activities, beyond the mere use of textbooks, to apply an interdisciplinary approach, to manage group processes and the interaction within groups, to act as a learning facilitator.

As far as the European Union is concerned, these competences are provided in official documents as part of teachers’ initial education. Therefore, Spain and Malta consider the five competences. Denmark, Estonia, Spain, France, Malta, Poland, United Kingdom, Montenegro and Norway focus on four of these competences in relation to initial education in several cases, for all teachers who teach in primary and secondary schools. Achievement of such competences in relation to initial education is not provided for Romania. They are to be achieved through the offer for lifelong training of teaching staff. We also note that the involvement of the factors concerned with the sector of entrepreneurship (in the economic and social environment as well as NGOs), either through contribution to initial education or by organizing, as part of the curriculum, visits to enterprises, social enterprises, and NGOs, is mentioned in the central recommendations or orientations in five countries: Finland, Latvia, France, Romania and Norway.

While the initial education of teachers will develop a group of newly-trained trainers in the sector of entrepreneurship, a suitable lifelong professional growth is essential for forming skills that all teachers need and for further supporting professional growth of such teachers who were in the position to benefit from initial education (European Commission, 2011a, p. 51).

At the European Union level, the lifelong training in the sector of entrepreneurship is supported by contributions to the development of some general

orientations in this sector, teaching materials, centers of expertise and/or networks of teachers intended to support teachers involved in the teaching – learning – assessment activities. At present, Romania has official orientations included in the entrepreneurship education curriculum for general upper secondary education as well as manuals in this sector.

As a result, the factors contributing and supporting entrepreneurship education for teachers are represented by good initial training of such teachers, lifelong learning programs for entrepreneurship education, involvement of the educational actors in this sector, the community partners, and, last but not least, the educational institutions with entrepreneurial strategy and vision, with strong and supportive leaders. In order to optimize the entrepreneurial training in relation to development of teaching staff's skills, the capacity of the schools to create learning environments which support and stimulate this type of activity is as important as the teachers' personal skills and motivation.

The role of the management in implementing entrepreneurship education is obvious from the perspective of both teachers and students. The innovative teachers are developed in innovative, flexible and efficient environments.

3. Relevance and Importance of Research

Entrepreneurial teachers have a passion for teaching. They are inspirational, open-minded and confident, flexible and responsible — but also, from time to time, rule-breakers. They listen well, can harness and sell ideas and can work student- and action-oriented. They are team players and have a good network (European Union, 2014).

The empirical research begins with the following questions: What skills should be developed throughout initial education so as to ensure the teachers' expertise, regardless of the subject they teach in class?, What would the method for lifelong professional growth and update of teachers' skills be in relation to the evolution of the business environment?, Who should be in charge of an efficient entrepreneurial culture among future employees?, How efficient and effective are acquisitions made throughout training courses on the level of teachers'/students' entrepreneurial training?

The European Commission adopted the "Entrepreneurship 2020" Action Plan and the Communication on "Rethinking Education" in order to emphasize the need to integrate learning into entrepreneurship, in all sectors of education.

Within the framework of the education system, the entrepreneurship education stands at present for an accessory to the curriculum, starting with lower secondary education, and for an optional element as part of a separate subject, such as business or economics, starting with upper secondary education and going upwards.

4. Materials and Methods

The investigative approach on initial education and lifelong training for an efficient entrepreneurship education used a complex research strategy which combines both quantitative and qualitative research methods. We enumerate below the set of methods and techniques used in order to collect information and the goal in relation to which they were used.

4.1. The objectives of the research are:

The main objectives of the empirical research were:

Objective 1: Identification of the perception of the persons interviewed on development of an efficient entrepreneurship education among employees through lifelong learning

Objective 2: Increase of the motivation of teachers working in pre-university education for lifelong training in the sector of Entrepreneurship Education

Objective 3: Identification of the responsibility of lifelong training with a view to developing entrepreneurial skills at organizational level

4.2. The qualitative research regarding the efficient entrepreneurship education among future employees through initial education and lifelong training is based on the following hypotheses:

H1 – Participation to initial education and lifelong training on entrepreneurship is low and varies according to personal criteria (gender, age, curricular area, residence area, seniority, status, type of educational establishment, teacher certification degree).

H2 – The motivation for lifelong training in the sector of Entrepreneurship Education is rather extrinsic than intrinsic.

H3 – The responsibility of lifelong training with a view to developing entrepreneurial skills is seen as falling under the employer's and not the employee's responsibilities.

4.3. Documentary Analysis

Reports, policies and studies on entrepreneurial culture in Europe, country reports on entrepreneurship, recommendations of the European Parliament, European Council, National research, development and innovation strategies as well as Need Analysis on education and training in Romania, guides on entrepreneurship education in European countries were studied.

4.4. Selecting the Sample

The sample of teachers from the pre-university education, high school, from Dâmbovița County, involved in the quantitative research, is made of 303 persons of 1,403 in total. The distribution of the questionnaires applied on the teaching staff from the high schools in Dâmbovița County is:

Table 1. Distribution of questionnaire by types of high schools

Total	No of questionnaires	Academic high schools	Technology high schools	National high schools	Vocational high schools
1,403	303	62	131	87	23

Source: authors' contribution

The questionnaires according to types of high schools were distributed by keeping the proportions of the teachers who teach in these organisations.

The analysis of the research sample shows a majority of female teachers (75.91%), compared to male teachers (24.09%).

The distribution of the sample in line with the age criterion, seniority in education and years served within the organization for the teachers interviewed is presented: below 30 (7.92%), between 31-40 (40.92%), between 41 – 50 (33.33%), between 51 – 50 (14.85%), over 60 (2.97%).

The analysis of the socio-demographic characteristics of the teachers interviewed indicates respondents between 31 and 40 (40.92% of total); by contrast, the teachers below 30 (2.97%) are represented to the lowest extent; this tendency is the same for all types of high schools under analysis.

Table 2. Sample distribution by seniority in education

	Years	Percent
1	below 5	8.58%
2	6-10	13.53%
3	11-20	46.20%
4	over 20	31.68%

Source: authors' contribution

In terms of seniority in education, the analysis of the sample researched indicates teaching staff with a seniority ranging from 11 to 20 years, to the detriment of the teaching staff with seniority below 5 years (8.58%).

With regard to the seniority within the organisation where teachers conduct their main activities, one may see that the seniority of most respondents (30.36%) is below 5, compared to the teachers whose seniority within the organisation exceeds 20 years. We may identify the fluctuation of the teaching staff towards organisations which should ensure their personal and professional growth.

A higher weight is represented by the teachers in the urban areas (75.25%), who carry out their activity compared with the teacher's in the rural areas (24.75%).

Most teachers interviewed have reached a high degree of didactic maturity (first level of qualification – 53.14%, second level of qualification – 21.45%, PhD – 2.97%).

In addition, the selection of the teaching staff took account of the teachers' curricular area, as indicated in the Table below:

Table 3. Distribution of teachers by curricular area

	Curricular area	Percent
1	Language and Communication	25.74%
2	Mathematics and Sciences	25.74%
3	Human and Society	19.80%
4	Arts and Sports	8.91%
5	Technologies	19.80%

Source: authors' contribution

The respondents' analysis in terms of their curricular area proves that the Mathematics and Sciences teachers (25.74%) as well as the Language and Communication teachers (25.74%) are best represented, to the detriment of the arts and sports teachers (8.91%). This is easy to understand if one takes into consideration the high school curriculum, the number of hours allocated by types of high schools, lines of study, qualifications, year of studies.

In relation to the status of the teachers interviewed, tenure teachers have the precedence (83.50%) over the unskilled substitute teachers (0.66%).

5. Discussions:

The empirical research conducted between December 2019 and February 2020, on the basis of the questionnaire applied on the sample presented above, mainly focused on the extent to which the personal criteria (gender, age, curricular area, residence area, seniority and didactic maturity) influences the participation to initial education and lifelong training towards developing an efficient entrepreneurship education among employees. This correlation is presented in the table below:

Table 4. Correlation between participation to initial education and lifelong training and personal characteristics of employees

Teachers' participation to initial education and lifelong training		Development of an efficient entrepreneurship education	Type of educational establishment	Seniority in education	Teacher certification degree	Curricular area	Age	Gender	Status	Residence area
Development of an efficient entrepreneurship education	Pearson correlation	1	-.153(**)	-.121(*)	-.128(*)	-0.020	-.122(*)	0.036	0.063	0.062
	Sig. (2-tailed)		0.008	0.036	0.026	0.731	0.033	0.531	0.274	0.279
	N	303	303	303	303	303	303	303	303	303

Source: authors' contribution

The threshold of signification – below 0.005 is reached in case of the connection between teachers' participation to initial education and lifelong training for development of an efficient entrepreneurship among teachers, type of educational establishment, seniority in education, teacher certification degree and age of the teachers interviewed. The effect of the development of entrepreneurship education in the context of teachers' participation to initial education and lifelong training is not influenced by the curricular area to which teachers belong, gender of the respondents, their status and residence area.

In relation to the correlation between the development of an efficient entrepreneurship education among teachers and the type of educational establishment, Pearson coefficient is - .153, inverse connection. This result indicates the fact that the type of educational establishment influences the respondents' opinion on development of an efficient entrepreneurship education among teachers through participation to initial education and lifelong training courses. The number of respondents by association is 303 while Sig's value is 0.008. This fact partially validates **H1** – Participation to initial education and lifelong training on entrepreneurship is low and varies according to personal criteria (gender, age, curricular area, residence area, seniority, status, type of educational establishment, teacher certification degree).

The teachers interviewed showed interest in attending lifelong training programs completed by accumulation of credits. This is firstly due to the fact that it complies with legal requirements (obtaining 90 credits every five years) and secondly because it places the teacher much better in the further selection grid (merit award, transfer, membership to some commissions and control body of the minister etc.). A little over 58% of the persons interviewed agree with the aspects mentioned above. Nonetheless, a percentage of 41.3% suggest the contrary, i.e. they link their participation to training programs to causes which are highly more important than the credit granting system. When analyzing the teachers' motivation for lifelong training in the sector of Entrepreneurship education, in terms of internal factors, we only focused on their desire to grow personally and professionally, a desire integrated as a lifelong learning principle, as shown in the table below:

Table 5. Teachers' motivation for lifelong training in the sector of Entrepreneurship education

Type of high school	Very important	Rather important	Not very important	Not important	Total
Technology high school	38	36	47	10	131
	29.0%	26.7%	35.9%	7.6%	100.0%
Academic high school	19	28	14	0	61
	31.1%	45.9%	23.0%	0.0%	100.0%
Vocational high school	5	11	4	3	23
	21.7%	47.8%	17.4%	13.0%	100.0%

National high school	19	35	26	7	87
	21.8%	39.1%	29.9%	8.0%	100.0%
Total	81	110	91	20	302
	26.8%	36.8%	30.1%	6.6%	100.0%

Source: authors' contribution

63.6% of the persons interviewed consider that participation to lifelong training programs in the sector of Entrepreneurship education represents an important stage in their career evolution, in particular in the current economic context, while 30.1% of the teachers see this as not very important. The teachers have many career advancement opportunities; they may run for administrative positions (principals, inspectors) and access specialty management positions (head of commission, person in charge of curricular area etc.). The advancement possibilities are correlated with their performances; however, there is no standardized career advancement system. Many times people go up the career ladder on an ad hoc basis.

With reference to external factors which may determine teachers' participation to training courses on entrepreneurship, we present the motivations of the teaching staff in the table below:

Table 6. External factors which motivate teaching staff to participate to lifelong training programs in the sector of Entrepreneurship education

External factors	Score
Current requirements of the national lifelong training system	1.17
Policies of school organizations	1.01
Course characteristics (themes, utility, credits granted, methods, provider, duration, scholarships/awards)	1.14
Conjectural factors (e.g. school involvement in a programs with a training component)	0.90
Exchange of good practices/experiences in this sector	0.27
Material benefits	0.34

Source: authors' contribution

It is gratifying that the people interviewed are willing to grow professionally by attending lifelong training programs intended for the sector of entrepreneurship. The motivation of their attendance of such courses is secondly linked to the characteristics of the program.

The aspects presented above (Table 5, Table 6) validate hypothesis **H2** – The motivation for lifelong training in the sector of Entrepreneurship Education is rather extrinsic than intrinsic.

With regard to the responsibility of an employee's lifelong training in general, their adaptation to new technologies and development of skills in the sector of Entrepreneurship education, the responses of the teaching staff in pre-university education, high school are presented in the table below:

Table 7. Responsibility of lifelong training with a view to developing entrepreneurial skills

Responsibility of lifelong training	Score
It is the responsibility of the employer	1.24
It is the responsibility of the employee	1.51
It is a right regulated by the Statute of the Teacher	1.35
I do not know	1.23

Source: authors' contribution

For the teaching staff interviewed, we may summarize that the responsibility of the lifelong training falls under the employer's responsibilities. A genuine analysis of the teacher's activity, analysis which goes beyond the formalism of the annual self-assessment on didactic performance, may lead to the identification of teachers' strengths and weaknesses. Failure to get to know the aspects requiring improvement may not lead to designing a realistic plan of professional growth for the teacher concerned. This fact validates hypothesis **H3** – The responsibility of lifelong training with a view to developing entrepreneurial skills is seen as falling under the employer and not the employee.

6. Conclusion:

Shifting the entrepreneurship education from the status of extracurricular instrument of business practice to the status of intrinsic element of the curriculum which includes a large range of entrepreneurial capacities and skills will entail significant changes in the educational system.

The empirical research conducted has pursued to highlight the role of the organization towards developing entrepreneurial skills for an efficient lifelong training among future employees. Through the teaching staff interviewed, the empirical research shows that once you manage to go beyond the formalism of the employees' annual assessment you may design an authentic professional growth plan for any sector requiring improvements within the organization. The quality of the educational act is a priority to all and any teacher involved in the complex endeavor of permanent education. Following the correlation between the performance of the teachers and some results of their students (graduation rate in the system, results in national examinations, graduation averages, results in Olympics and competitions), we are not inaccurate when stating that students begin to have good and very good results in relation to all indicators to which the teachers' assessment is also connected. Therefore, the development of entrepreneurial skills among teachers through Lifelong training will also have an impact on the results of the students and their manner to adapt to the new requirements of the economy nowadays.

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DOES EARNINGS MANAGEMENT PRACTICE AFFECT THE PERFORMANCE OF LISTED CONSUMER GOODS FIRMS IN NIGERIA?

Oyefemi Olympus OWORU

Department of Accounting,
Federal University of Agriculture, Abeokuta, Nigeria
E-mail: oworufemi@gmail.com

Jayeola OLABISI

Department of Accounting,
Federal University of Agriculture, Abeokuta, Nigeria
E-mail: olabisij@funaab.edu.ng

Olagunju ADEBAYO

³Department of Accounting, Osun State University, Nigeria
E-mail: heavenisreal36@gmail.com

Efetobore OKORODUDU

Department of Accounting,
Federal University of Agriculture, Abeokuta, Nigeria
E-mail: efetoboreoko@yahoo.com

Abstract: The study investigated the effect of earnings management practices on the financial performance of listed consumer goods firms in Nigeria. The study adopted ex-post-facto design to collect data for the study on the events already in existence. The purposive sampling technique was employed to select 10 firms out of 21 listed firms contingent on the availability of data. The study generated secondary data, over a period of eleven years 2008-2018, from the audited financial reports of sampled firms. The data were analyzed using descriptive and inferential statistics coupled with multiple regressions. In the model, Return on Asset (ROA) was used to measure financial performance while Earnings per Share (EPS), Operating Cash Flow (OCF), and Firm Size (FSIZE) were surrogates for earnings management. The study showed a significant and positive influence of EPS on ROA ($p\text{-value} < 0.05$); also, a significant and negative effect of FSIZE on ROA ($p\text{-value} < 0.05$). However, there was an insignificant and a positive influence of OCF on ROA ($p\text{-value} < 0.05$). The study suggested a significant contribution of earnings management to the performance of consumer goods firms in Nigeria. Hence, it is recommended that auditors should ensure a transparent and audit quality to protect investors' interests. In addition, investors should exercise restraints in placing much reliance on earnings per share and firm size while making vital investment decisions.

Key-words: Earnings Management, Performance, Return on Asset, Earnings per Share, Operating Cash Flow, Firm Size.

JEL Classification: P34, L25.

1. Introduction

Chang, Shen and Fang (2008) describe earnings management as opportunist behaviour of an agent who prepares accounts to unduly influence accounting earnings to obtain unjustified advantage of the principal. Earnings management arises when managers use judgment in the financial statement to prepare financial reports to influence economic reports of an entity to either deceive unsuspecting investors concerning the fundamental economic operations of a firm, or gain advantage of contractual outcomes that depend on reported accounting information (Omoye and Eriki, 2014).

Earnings management is a strategy adopted by agents to manipulate reported earnings through the use of precise accounting methods by bloating expenses or revenue transactions and other methods calculated to influence short-term earnings. Earnings Management is an anticipatory step to default loan agreement, reduce regulatory costs and increase regulatory benefits (Cornett, Marcus and Tehranian, 2008). The motivation for earnings management include recompenses for higher share prices, enhanced credit rating resulting in reduced interest rate and improved rewards for managers. Some of the

arrangements performed by firms are inappropriate revenue and expense recognition, defective accounting system linking with merger, and unjust use of off- balance-sheet items. According to Chang, Shen and Fang (2008), these fraudulent schemes are devastating to stakeholders.

Roychowdhury, (2006) confirmed the existence of substantial evidence that earnings management is adopted by managers for various reasons. However, earnings management in most cases has led to failure of many businesses and by nature; the accounting policies set out by Generally Accepted Accounting Principles (GAAP) do not stipulate specific accounting policies to be adopted by managers when preparing financial statement. In Nigeria, the corporate environment has experienced cases of earnings management such as the manipulative accounting information (Ndukwe and Onwuchekwa, 2014).

It is note worth that in most cases; agents may cleverly manage earnings to take full advantage of their strategic position in the business to exploit other stakeholders (Aman, Iskandar, Pourjalali, & Teruya, 2006). These practices are imagined to be much more noteworthy in an emerging market where various market imperfections exist and persist. This is a common case in Nigeria where in spite of the publication of a new corporate governance code in 2011, there are still cases of dishonesty as regards utilization of business fund and distortion of reports or the benefits of the management. Therefore, this study examined if earnings management influence financial performance of consumer goods firms in Nigeria. The specific objectives are to:

- i. assess the significant effect of earning per share on performance of listed consumer goods firms in Nigeria;
- ii. evaluate the significant effect of firm size on performance of listed consumer goods firms in Nigeria; and
- iii. investigate the significant effect of operating cash flow on performance of listed consumer goods firms in Nigeria.

2. Extant Literature

Conceptual Review

Earnings management is the process of hiding the truth in financial statement by changing the accounting treatment of specific items, or using other stylish methods. Such practices come to interplay due to the agency problem between the agent and principal arising from the contracting costs, bounded rationalities, and information asymmetry between the parties (Aliyu and Noor 2015). Consequently, numerous reasons may motivate agents to manage earnings at the contracting, capital market and external levels; hence authorizing them to obtain some personal benefits. Earnings management is the causal reason for a number of financial calamities among big businesses and eventually occasioned in business collapse. Thus, thoughtful earnings management practices have repercussions on business supervisory body, policy makers, investors, scholars, and other financial information users.

According to Dechow and Skinner (2000) posited that one of the ways to manage earnings is through total accruals. Total accrual is related closely to earnings management, it is important to note that not every part of total accruals is related to earnings management. Total accrual is divided into two parts. The first part is normal accrual which is also called non-discretionary accrual which is the estimate made by management based on the economic performance of the companies (Rahman and Ali, 2006). The other part is discretionary accrual which is the total accrual that has been influenced by the management, within the confine of accounting principles and policies (Amman, 2006).

Earnings Per Share (EPS) is one of the major financial statistics used by investors and analysts to measure the financial performance of firms. It signifies the profit that is made per share and used to appraise the profitability and risk connected with profits and make judgments about share prices (Vahid, Seyed and Vahideh, 2013). There are three ways to measure EPS namely basic EPS which classifies the actual earnings after preference shares by the weighted average number of ordinary shares, diluted EPS which expresses the EPS that an entity would generate if all warrants, convertibles and options have been exercised producing the total ordinary share capacity to increase and headline EPS is calculated by excluding separately identifiable re-measurements from the earnings of the entity.

Bassiouny, Soliman and Ragab (2016), posited that large-sized firms have robust internal control system and more proficient internal auditors as compared to small-sized firms. Therefore, an effective internal control system produces reliable financial information to the users, thus, this may possibly diminish the ability of the management to manage earnings. Also large firms are usually audited by any of the big four auditing firms and this may reduce the practice of earnings management due to an efficient and effective audit exercise. Large firms may also have reputational concern to manipulate earnings (Kim, Liv and Rhee, 2003). Ndukwe and Onwuchekwa (2014) argues that large firms are more concerned about their image the credibility of financial information disclosed is compromised compared with smaller firms, and enjoy the benefits of receiving better audit services which likely diminishes their earnings management practices. On the other hand, an argument is made in favour of a positive impact upon earnings management since large firms face more pressure to meet up with analysts' expectations (Aliyu and Noor 2015).

The performance of a firm is directly linked with the performance of management so that profit and operating cash flow can be used as a measurement of management's efficient and effective use of the firm's resources. Roychowdhury (2006), submitted that influencing financial reports can arise as a result of operating activities driven by management's intent to deceive investors and stakeholders that certain financial reporting goals have been met in the ordinary course of operations and these manipulations include sales promotion using discounted prices or giving waivers of credit to increase sales or reduce production cost or a discretionary expenditure reduction.

Theoretical Review

This study is underpinned by the agency theory of Jensen and Meckling (1976). The theory argued that, agents perform take some decisions that benefit them which may definitely not serve the interest of principals. Healy and Wahlen (1999) opined that agents may practice unscrupulous earnings management through the use of findings in financial reports to alter financial statements, and such alterations will mislead principal about a business's economic activities. There are two general methods of implementing earnings management namely differing from normal business operations and altering the level of accruals (Joosten, 2012).

In an attempt to please the owners and prove efficiency in managing the owner's resources, managers tend to involve in earnings management. Based on agency theory, the explicit and implicit contracts between the firm and stakeholders offer a range of incentives for managers to engage in earnings manipulations. Earnings management is based on agency problem that existed when managers fail to act in the best interest of the owners. The existence of agency problem results from separation between ownership and control; as managers would have more inside information than the financial providers (shareholders).

Studies reveal that managers use their discretion over accounting numbers to achieve private gain and flexibility of accounting standards usually give room for them to adjust earnings through managing accruals. Managers have many incentives to manage earnings like compensation, avoidance of debt covenant violations. Hence, Earnings Management has the propensity to mislead which may be difficult to detect by ordinary people who do not have requisite knowledge on the issue relating to accounting numbers.

Empirical Review

Alhadab and Al-own (2017), examined earnings management and banks performance: evidence from Europe. Descriptive statistics and Pearson correlation matrix were used. The results showed a negative impact of earnings management that takes place in a specific year (the event year) over five years after the even year. Thus, earnings management inflates current reported earnings to meet several incentives, but this at the expense of future performance. Findings also revealed that European banks with high levels of earnings management that occurs via discretionary loan loss provision experienced inferior operating performance measured with Return on Assets, (ROA) in the current and subsequent years.

Altintas and Otluglu (2017) studied the impact of earnings management on the value relevance of earnings: evidence from Turkey. Data were generated from Turkish listed manufacturing companies on Istanbul Stock Exchange of Turkey (Borsa Istanbul-BIST). The findings revealed a significant and positive relationship between earnings and market adjusted stock returns, however there was an insignificant difference between adjusted market returns of high and low performance companies. The results revealed that companies that do not perform very well may influence their earnings to make financial performance attractive.

Ching, Teh, San and Hoe (2015) studied the relationship among audit quality, earnings management, and financial performance of public listed companies in Malaysia. 100 listed companies from the Industrial Products and Consumer Products were studied over a period of 2008 to 2013. The data generated were analyzed using multiple regressions. The results of the study revealed that audit quality did not oblige earnings management practices in Industrial Products and Consumer Products companies. Also, companies in Malaysia practice income-increasing and income-decreasing accruals to achieve business goals.

Bassiouny, Soliman and Ragab (2016), studied the impact of firm characteristics on earnings management of listed firms in Egypt. Sixty firms were studied over a period of five years. The data analysis was done using random effect generalized least square regression model. Findings revealed a significant and positive relationship between firms' financial leverage and earnings management while other surrogates of the firm characteristics; firm size, firm age and firms' audit quality have an insignificant relationship with earnings management.

Uwuigbe and Bernard (2015) evaluated the effects of firms' characteristics on earnings management of listed companies in Nigeria. A total of 20 listed firms were selected using a judgmental sampling technique over a period of 2006-2010. Data were analyzed using descriptive statistics and pooled ordinary least square regressions. Findings revealed a significant and positive impact of firms' size, corporate strategy on earnings management while financial leverage has an insignificant influence on discretionary accruals of the selected firms in Nigeria. The study recommended that auditors should devote more attention to the size of the firm in the audit process, since larger firms has a great advantage to manage earnings.

3. Methodology

The study used *ex post facto* research design since data collected for the study were financial events that had already taken place and the independent variables were studied in retrospect for possible effects on the dependent variable. The population of the study comprised twenty-one (21) Nigerian quoted consumer goods firms as at 2019. The random sampling technique was used to select 10 Nigerian listed consumer goods firms. The study made use of secondary data collected from audited annual reports of the sampled firms over a period of 11 years (2008-2018). The data estimation techniques were Pearson correlation and Regression models. The pooled regression, fixed effect regression and random effect regression were computed. The most efficient of these models was accordingly determined by relevant tests. Step wisely, the pooled regression results was first compared with fixed effect regression using the fixed effect redundant test that validated the consideration of fixed effect in the model. With this result we proceeded to estimate the random effect and made necessary comparison based on the Hausman test. The statistical significance of the Hausman test showed that the random effect was the best and led to the rejection of fixed effect model.

Model Specification

The study estimated the following regression model to examine the relationship between dependent and independent variables.

$$ROA = f(\text{EPS; FSIZE; OCF}) \dots\dots\dots 3.1$$

Where;

ROA= Return on Asset

EPS=Earnings per Share

FSIZE=Firm Size

OCF=Operating Cash Flow

o= constant

e= error term

$$\text{Hence, } ROA_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 FSIZE_{it} + \beta_3 OCF_{it} + e_{it} \dots\dots\dots 3.2$$

Table 1. Description and Measurement of variables

S/N	VARIABLE	VARIABLE TYPE	MEASUREMENT
1	Return on Asset	Dependent(Y)	<u>Profit after tax</u> Total Asset
2	Earnings Per Share	Independent (x)	<u>Profit after Tax- Preference dividend</u> Number of issued ordinary shares
3	Operating Cash Flow	Independent (x)	Ratio of Net Cash flow from operating profit to total assets
4	Firm Size	Independent (x)	Natural log of Total asset

Source: Researcher's Compilation (2019).

Data Presentation and Discussion of Results

The table below presents the descriptive statistics of the independent and dependent variables. It shows that there are 110 observations (11 years annual computations of 10 sampled firms) in the consumer goods firms listed in Nigeria.

Table 2. Descriptive Statistics

	ROA	OCF	FIRM SIZE	EPS (KOBO)
Mean	0.119769	14.11967	24.85146	180.8272
Median	0.097164	7.028720	25.01530	81.50000
Maximum	1.299967	94.02355	26.68624	1216.000

Minimum	-0.077651	-26.40981	22.25538	-282.0000
Std. Dev.	0.141850	21.12858	1.098563	251.8572
Skewness	5.308936	1.785630	-0.518874	1.769150
Kurtosis	44.71292	6.220375	2.530668	6.342451
Jarque-Bera	8491.572	105.9883	5.945478	108.5862
Probability	0.000000	0.000000	0.051163	0.000000
Sum	13.17460	1553.164	2733.661	19890.99
Sum Sq. Dev.	2.193235	48659.43	131.5456	6914094.
Observations	110	110	110	110

Source: Researcher's Computation (2020)

The table revealed that return on asset showed the following statistics; mean is 0.119769, the standard deviation is 0.141850 which is higher than the mean and suggested that ROA did not exhibit considerable clustering around the average ranging from -7.8% to 130%. Operating Cash Flow (OCF) has a mean value of 14.11967 with standard deviation of 21.12858 that suggested that operating cash flow distribution exhibited a considerable clustering around the average with a minimum value of -26.4 and the maximum value of 94.02. For Firm Size, there was a mean value of 24.85 with a standard deviation of 1.10 indicating that the maximum size of the companies was 26.69 and the minimum size was 22.26. Earnings per share for every ordinary shareholder were on an average of 180.33 per 1 kobo ranging from -282 kobo/share to 1216 kobo/share.

All the series except firm size were positively skewed or are rightward skewed. The values of kurtosis of the variables indicated that all the variables were leptokurtic as their values were greater than 3 (>3) while firm size was platykurtic or flat (<3).

In conclusion, the Jarque Bera statistics revealed that all the series except firm size were not stationary as their probability values were statistically significant at 5% level.

Correlation Analysis

Table 3 presents the pairwise correlation test results for all the variables adopted in the study.

Table 3. Pairwise Correlation Result

	Return on Asset	Operating Cash Flow	Firm Size	Earnings Per Share
Return on Asset	1	0.227977	-0.179203	0.085407
Operating Cash Flow	0.227977	1	0.464753	0.374082
Firm Size	-0.179203	0.464753	1	0.405135
Earnings Per Share	0.085407	0.374082	0.405135	1

Source: Researcher's Computation (2019)

The results of the test showed that each of the variables have a weak relationship. There was a weak and positive relationship of 22.79%, 8.54%, 46.47%, 37.41% and 40.51% respectively between operating cash flow and return on asset, earnings per share and return on asset, firm size and operating cash flow, earnings per share and firm size. However, the relationship between firm size and return on assets exhibited a weak and a negative relationship of -17.92%. In summary, the results above suggested an absence of multicollinearity in the estimation result.

Regression Analysis

Table 3 presented the main regression results. Depending on the assumption made on the error component of the linear regression model, it is a conventional practice in the literature to estimate three linear regression for a study like this, including the pooled regression, fixed effect regression and random effect regression. The most efficient of these models are consequently determined by other relevant tests. Step wisely, the pooled regression results are first compared with those of fixed effect regression using the fixed effect redundant test that helps to validate or invalidate the consideration of fixed effect in the model. The non-rejection of the null hypothesis implies that the pooled regression is the best, in which case there is no need of further comparison with the random effect. If, on the other hand, the fixed effect redundant test supports the fixed effect model, we proceed to estimating the random effect and make necessary comparison based on the Hausman test. The statistical significance of the Hausman test shows that the fixed effect is the best; otherwise, we choose the random effect.

Table 3. Regression Analysis

	Pooled OLS		Random Effect Estimation		Fixed Effect Estimation	
C	1.341534***	8.263982	2.942966** *	2.180571	3.884484** *	8.2587 16
OCF	0.002496***	7.320325	0.001637**	2.180571	0.001001	1.2195 54
Firm Size	-0.051017***	- 7.668875	- 0.115681** *	-7.154304	- 0.153198** *	- 8.0776 56
EPS			0.000158** *	2.653809	0.000157**	2.4250 55
R-squared	0.164653			0.600764	0.322330	
Adjusted R-squared	0.158905			0.551374	0.303150	
Durbin-Watson	1.388416			1.905642	2.083237	
F-Stat	28.64619***			16.80608* **	12.16367** *	
Hausman Test			16.743069			

Source: Researcher's Computation (2019)

The result of hausman test showed that random effect is more appropriate for the study than fixed effect; hence we chose the random effect for the study. The result of the study showed that there was a significant effect of earnings per share, firm size and operating cash flow on return on asset at 5% level of significance. Furthermore, operating cash flow and earnings per share had a positive influence return on asset, while firm size exhibited a negative influence. The results showed that when other variables remain constant, return on assets will increase by 3.88. A unit increase in operating cash flow will lead to an average increase in return on assets by 1.001%, *ceteris paribus*. When earnings per share increase by 1 kobo, return on assets will increase by an average value of 0.15%. This showed that earnings per share are very potent in increasing return on assets of consumer goods firms in Nigeria. Also, the firm size which is represented by the total amount of assets owned by a firm had a negative influence return on assets. This implies that a per cent increase in firm size will reduce return on assets by 0.15%, on the average.

The adjusted R-squared reported also indicated that about 55% of the variation in the financial performance was explained by variables captured in the study while 45% variation is due to other factors not captured by the study. The Durbin Watson statistic of 1.905 that is very close to 2 indicates the absence of first order serial correlation in the regression model. The significant F-stat also indicates that model adopted is fit for the study which, indicated that the independent variables explained the variations in dependent variable.

Findings and Discussion

The objective of this study was to determine the effect of earnings management on the financial performance of quoted consumer goods firms in Nigeria. The study used secondary data obtained from the financial statements of the selected firms.

The study revealed existence of a significant and positive relationship between earnings per share and return on asset; this implies that producing a higher profit allocated to ordinary shareholders could increase the returns on assets at a significant level. In addition, there was a significant and negative relationship between firm size and return on asset which implies that the amount of total asset, total sales or volume of output owned by a company could decrease return on asset at a significant rate. However, an insignificant and positive relationship existed between operating cash flow and return on asset of consumer goods firms in Nigeria, this showed that an increased operating cash flow improves cash for the next financial period such as sufficient cash to pay loan, maintain operational activities and make new investments without relying on external sources of funding, this could increase the value of returns on asset at an insignificant proportion.

The result supported the findings of Alhadab and Al-own (2017); Altintas and Otluglu (2017); Uwuigbe and Bernard (2015) and Ching, Teh, San and Hoe (2015). For instance Uwuigbe and Bernard (2015) found that firm size and earnings per share have a significant impact on earnings management. Ching, Teh, Sam and Hoe (2015) argued that audit quality did not actually constrain earnings management practices and that the sampled firms manifested income-increasing and income-decreasing accruals in order to achieve business objectives. The study is also in line with the study of Altintas and Otluglu (2017) whose study revealed a significant and positive relationship between earnings and market adjusted stock returns for the sampled firms, however the results revealed that low performing companies tend to increase their earnings to hide performance.

In line with agency theory, the study established that earnings management existed as a result of agency problem when managers fail to act in the best interest of owners (principal). The existence is because of separation of ownership from control, consequent on this Uwuigbe and Bernard (2015) submitted that auditor should pay serious attention to the size of the firms, earnings per share in the process of audit assignment, since the higher the EPS and Firm Size the higher the potential for the firms to increase earnings management practices.

4. Conclusion

This study was embarked on in order to investigate the relationship that exists between earnings management and financial performance of quoted consumer goods in Nigeria. In order to achieve the objectives of the study, data were obtained from 2008 to 2018 financial year of eleven (11) consumer goods firms in Nigeria. The results indicated that there was positive relationship between earnings management proxies (operating cash flow and earnings per share) and returns on asset. Meanwhile, firm size was found to have negative and insignificant relationship with returns on asset. It was therefore concluded

that listed consumer goods firms that judiciously manage earnings would be able to increase financial performance.

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INFLUENCE OF FORENSIC AUDIT DRIVERS ON QUALITY OF INTERNAL AUDIT FUNCTIONS IN NIGERIA

Ph.D. Adebayo OLAGUNJU

Department of Accounting, Faculty of Management Sciences,
Osun State University, Nigeria

E-mail: heavenisreal36@gmail.com

Jayeola OLABISI

Department of Accounting, Federal University of Agriculture, Abeokuta, Nigeria

E-mail: Jayeolabisi@yahoo.com/olabisij@funaab.edu.ng

Samuel Oladele OBISESAN

Directorate of Internal Audit, Osun State University, Nigeria

E-mail: samuel.obisesan@uniosun.edu.ng

Abstract: *This study evaluates the influence of forensic audit drivers on quality of internal audit function in Nigeria with reference to medium scale firms in Lagos and Ogun States. The population of the study comprises of stakeholders of forensic auditing in the sampled states including internal auditors of sampled firms, forensic accountants and other relevant stakeholders considered appropriate for the study. A sample of 72 medium scale firms representing 10% of the total population (723) of Lagos and Ogun States was used as sampling frames for the study, chosen purposively in proportion of 60% and 40% for Lagos and Ogun firms respectively. Three (3) internal audit staff including internal auditors and assistant internal audit staff who were Chartered Accountants were used as respondents through purposive sampling technique. The results of the study showed that there is a strong and positive relationship between forensic audit and quality of internal audit function in medium scale firms in Nigeria. It also revealed that Forensic audit influence quality of internal audit function in medium scale firms. The study concluded that forensic audit enhances internal audit function for stronger internal control system. It is therefore recommended that medium scale firms need to employ quality forensic analyst and make use of modern-day technology to aid forensic audit.*

Key words: Forensic Audit, Internal Audit Quality, Medium Scale Firms, Nigeria.

JEL Classification: M42.

1. Introduction

Auditing according to Raffa, (2003) is a systematic process of objectively obtaining and evaluating evidence regarding assertions about economic actions and events to ascertain the degree of correspondence between those assertions and established criteria and communicating the results to interested users. Auditing has its history to a large extent determined by the history of accounting, as the latter metamorphosed and culminated with the development of the world economy (Tanko, 2011). For instance Salehi (2008) observed that although ancient cultures of Mesopotamia, Egypt, Greece and Italy show evidences of highly developed economic systems, yet the economic fact during these periods were limited to the recording of single transactions. Also, Mukoro, Faboyede and Eziamaka (2014), believed that internal auditors can assist in the deterrence of fraud by examining and evaluating the adequacy and the effectiveness of the system of internal control. In Nigeria, the incorporation of modern forensic auditing techniques in audit is seen as timely in order to prepare the accounting profession to deal effectively with the problem of unearthing ingenious fraud schemes arising from audit failure to detect frauds in Nigeria. Centre for Forensic Studies (2010) report in Nigeria states that if well applied, forensic auditing could be used to reverse the leakages that cause corporate failures. This can be attributed to the fact that proactive forensic accounting practice seeks out errors, operational vagaries and deviant transactions before they crystallize into fraud.

The Association of Certified Fraud Examiners (2014) also defined occupational fraud as one in which an employee uses his or her occupation to enrich himself or herself through the deliberate misuse or misappropriation of employer's resources or assets. A

classic example of this type of fraud is employee embezzlement. There is also vendor fraud which is usually in the form of overcharge for purchased goods, over-invoicing, shipment of inferior good or the non-shipment of goods even though payment was made; and lastly is customer fraud. According to Nipion (2015), fraud usually occur in different form and can lead to bankruptcy, inflation, increase in crime, reduced income per head, unemployment, and can also affect the economic system of a country. Hence, forensic auditing needs to be adapted to every organization internal control system as suggested by Onuorah and Ebimobowei, 2012).

Studies in forensic audit relationship with quality of internal audit function are few in developing economy like Nigeria. Those that exist were more on fraud control or prevention than the totality of benefit of forensic audit. The extent to which adoption of forensic approach would influence the quality of internal audit is therefore worthy of exploration. In a nut shell, forensic audit does not focus on the control system in place alone but uses extensive testimonial evidence gathered to reach conclusion on certain investigation. All these shall form the subject matter of the current study that examines the effect of forensic audit drivers on quality of internal audit function in Nigeria

Objectives

The broad objective of this study is to examine the influence of forensic audit drivers on quality of internal audit function in Nigeria while the specific objectives are as stated below:

- i. Investigate the relationship between forensic application and quality of internal audit function in medium scale firms in Nigeria.
- ii. To examine the influence of forensic investigation on quality of internal audit function in medium scale firms in Nigeria.

Hypotheses

The following null hypotheses were tested in the course of the research:

Ho₁: Forensic application has no significant relationship with quality of internal audit function in medium scale firms in Nigeria.

Ho₂: Forensic investigation has no significant influence on quality of internal audit function in medium scale firms in Nigeria.

2. Literature Review

The Concept of Forensic Audit

Forensic audit is seen as summarizing and adapting investigative auditing, criminology, litigation services, and financial skills to uncovering fraud. The increasing complexity of fraud requires that forensic auditing be included in the tools required to successfully investigate and prosecute cases of fraud and those involved in fraudulent practices (Njanike, Dube and Mashayanye, 2009). Though quite new in Nigeria today, companies' chief executives have realized that there is need for the services of forensic auditor, as the frequency of fraudulent financial practices have continued to be on the increased. Meanwhile, Arokiasamy and Cristal (2009) had described forensic audit as the application of financial skills and investigative ability within the context of rule of evidence to examine unsettled issues. Also, Linguistn and Bologna (1987) affirmed that forensic accounting as a discipline is made up of fraud knowledge, financial expertise and a sound knowledge and understanding of business reality and the working of the legal system. Forensic audit may be one of the most effective and efficient way to detect, reduce and prevent fraud; hence, forensic accounting is taught as a major course in many educational institutions in some countries of the world. The Institute of Forensic Accountants (IFA) of Nigeria depict forensic auditing as the specialty of accounting that

describes forensic auditor/accountant's engagement resulting from anticipated dispute or litigation.

Grippio and Ibex (2003) submits that forensic audits are more intensive than regular audits and are usually conducted in a series of steps to determine if allegations can be substantiated and to identify the nature of any further work needed. Thornhill (1995) stated that forensic audits require a clear and detailed audit plan that is designed to obtain information on how, when, and where a wrong doing occurred and who committed such a wrongdoing. Ghali (2001) submits that forensic audit reports are usually lengthy and extensively substantiated and contain a clearly documented chronology of events.

Finally, 'forensic auditing' refers to the specific procedures carried out in order to produce evidence. Audit techniques are used to identify and to gather evidence to prove, for example, how long the fraud has been carried out, and how it was conducted and concealed by the perpetrators. Evidence may also be gathered to support other issues which would be relevant in the event of a court case.

Distinction between Statutory Audit and Forensic Audit

S/N	Particular	Statutory Audit	Forensic Audit
1.	Objective	Express opinion as to "true & fair view" presentation	Determine correctness of the accounts or whether any financial fraud has actually taken place.
2.	Techniques	"Substantive" and "compliance" procedures	Analysis of past trend and substantive or in-depth checking of selected transactions.
3.	Period	Normally, all transactions are for particular accounting period	No such limitations. Accounts may be examined in details from the beginning.
4.	Verification of stock, estimation of realizable value of current assets, provision/liability estimation, etc	Relies on the management certificate/representation of management	Independent verification of suspected/selected items carried out.
5.	Off-balance sheet items like (contracts)	Used to vouch the arithmetic accuracy & compliance with procedures.	Regularity and propriety of these transactions/contracts are examined.
6.	Adverse findings if any	Negative opinion or qualified opinion expressed, with/ without quantification.	Legal determination of fraud and naming persons behind such frauds.
7.	Usage	Reports generated cannot be used for litigation	Reports generated can be used for litigation

Source: Vasudevan (2004)

Theoretical Framework

The lending Credibility Theory

This theory suggests that the primary function of the audit is to add credibility to the financial statements. In this view the service that the auditors are selling to the clients is credibility. Audited financial statements are seen to have elements that increase the financial statement users' confidence in the figures presented by the management (in the financial statement). The users' are perceived to gain benefits from the increased credibility, these benefits are typically considered to be that the quality of investment decisions improve when they are based on reliable information.

The Theory of Inspired Confidence

Limperg (1932) addresses both the demand and the supply for audit services. The demand for audit services is the direct consequence of the participation of third parties (interested parties of a company) in the company. These parties demand accountability from the management, in return for their investments in the company. Accountability is realized through the issuance of periodic financial reports. However, since this information provided by the management may be biased, and outside parties have no direct means of monitoring, an audit is required to assure the reliability of this information. With regard to the supply of audit assurance, Limperg (1932) suggests that the auditor should always strive to meet the public expectations.

Empirical Evidence

Saxby, Ehlen and Koski, (2004) examined the relationship between financial services quality (i.e. audit, consulting, tax and financial statement preparation) and client satisfaction. The authors focused mainly on those services provided by CPA firms. Among the five dimensions of service quality (i.e. tangibles, reliability, responsiveness, assurance and empathy), only two dimensions (i.e. reliability and assurance) were found to be positively associated with clients' satisfaction. Butcher, Harrison and Ross, (2013) performed a study to assess the relationship between the audit quality attributes and the auditor retention. Focused on Australian state of New South Wales as there was prior research evidence on the satisfaction with audit service quality, the authors used 48 audit attributes to measure the audit quality. The 48 attributes were distributed over 7 categories include reputation, capability, assurance, independence, expertise, experience and responsiveness. Authors' findings indicated that only expertise and responsiveness to client needs are significantly associated with audit or retention. Despite that, the results of the above mentioned studies are different from one country to another in terms of the relationship between audit quality attributes and client satisfaction; there is some consensus on the role of audit quality attribute in enhancing the client satisfaction.

Cletus and Uwaoma (2014) also examined the relationship between forensic auditing and fraudulent practices in Nigerian public institutions. The population of the study consisted of the general managers and accountants of 12 public institutions in Nigeria. The data generated were statistically tested with the Pearson Product-Moment Correlation Coefficient. The findings suggest that both the proactive and reactive forensic auditing techniques have a negative significant relationship with fraudulent practices in Nigerian public institutions. Based on the above, it was recommended that: (1) The Economic and Financial Crime Commission (EFCC), the Independent Corrupt Practices Commission (ICPC), and other anti-corruption bodies in Nigeria should have, in their payroll, internal forensic auditors to supplement the duties of the internal auditors; (2) Forensic auditors should regularly undergo training and development programs to acquaint them with relevant knowledge and skills for effective forensic auditing; and (3) Forensic auditing should be made mandatory for public institutions by regulatory authorities rather than being voluntary.

The above empirics and some others which were not mentioned in this research work were not able to explore the influence of forensic audit drivers on quality of internal audit function which will establish the relationship between forensic audit and quality of internal audit function, hence the need to embark on this research. Our study builds on these studies by evaluating the influence of forensic Audit drivers on Quality of internal audit function in Nigeria.

3. Methodology

The study adopts survey research design to obtain data for the purpose of the study and covers medium scale manufacturing firms in the selected cities in South Western Nigeria with emphasis in Lagos and Ogun State. These two states have been selected due to their economic characteristics as commercial centres. The population for this study comprises stakeholders of forensic auditing in the sampled states including internal auditors of sampled firms, Forensic Accountants and other relevant stakeholder considered appropriate for the studies. A sample of 72 medium scale firms representing 10% of the total population of Lagos and Ogun state (723) was used as sampling frames for the study and chosen purposively in proportion of 60% and 40% for Lagos and Ogun firms respectively. Further 3 internal audit staff including internal auditors and assistant internal audit staff who are Chartered Accountants were used as respondents through purposive sampling procedure. Two hundred and thirty (230) copies of questionnaire were distributed while two hundred and sixteen (216) were returned. This makes a total 216 respondents from medium scale firms. Objective one on the relationship between forensic audit application and quality of internal audit functions was analyzed using correlation model while objective two on the influence of forensic investigation on quality internal audit functions was approached through regression model.

4. Results and Discussion

4.1. Test of Hypothesis I

The results of data analysis were displayed in Table 4.1. Correlation method of analysis was used to test the hypothesis Forensic application has no significant relationship with quality of internal audit function in medium scale firms in Nigeria. Table 4.1.0 shows the respondents' response on the forensic application relationship on quality of internal audit function in sampled medium scale firms. Table 4.1.1 show the significant of the variable used. From the table it shows that none of the variable has p-value greater than 0.05. This shows that all the variables were significant. Table 4.1.2 shows the model summary. From the table it shows R value of 0.697. This means that there is a strong and positive correlation between forensic application and quality of internal audit function in sampled medium scale firms. The coefficient of determination (R-square) means that variable used explained 48.9% variation. Since the p-value of 0.015 is less than 0.05, it means that the null hypothesis (H_0) is rejected and alternative hypothesis (H_1) accepted. Hence, it can be concluded that forensic application has significant relationship with quality of internal audit function in medium scale firms in Nigeria.

Table 4.1.0: Forensic application relationship to quality of internal audit function in sampled medium scale firms in Nigeria

	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree(1)	\bar{X}
Forensic application foster independence	25.7	65.1	4.8	1.8	2.6	26.9
Size of Forensic audit firm determines the quality of audit service rendered	77.6	16.2	-	1.8	4.4	30.9
Reputation of internal auditor determines the quality of audit function rendered in medium scale firms	84.1	8.1	3.3	4.4	-	31.2
Internal control settings in medium scale firms assist in forensic application	73.3	21.4	1.1	4.1		31.0
Response of medium scale firms to forensic application is impressive	9.6	13.6	1.8	58.5	16.5	16.0
Executive involvement in forensic application is evitable	20.2	11.8	0.7	59.2	8.1	18.6

Source: Authors computation, November,2019

Table 4.1.1 Test of significance of variables

Model	t	Sig.
Forensic application foster independence	-5.107	.000
Size of medium scale firm determines the quality of internal audit function rendered	2.516	.006
Reputation of internal auditor determines the quality of internal audit service rendered in medium scale firm	-4.748	.045
Internal control settings in medium scale firm assist in forensic application	8.089	.000
Response of medium scale firms to forensic application is impressive	-10.332	.000
Executive involvement in forensic application in medium scale firms is evitable	5.267	.003

Source: Author's computation, November, 2019

Table 4.1.2: Model Summary

R	R Square	Adjusted R Square	Sig.
.697 ^a	.486	.472	.015

Source: Author's computation

4.2 Test of Hypothesis II

Regression analysis method was used to test hypothesis II that Forensic investigation has no significant influence on quality of internal audit function in medium scale firms in Nigeria. Forensic audit serves as the dependent variable while quality internal audit function is the dependent variable. The independent variables were forensic audit variables in medium scale firms. Forensic investigation relied on the independence of internal auditor in medium scale firms, Forensic application increases confidence in the quality of work undertaken by internal audit in medium scale firms, Size of medium scale firm determines the influence of forensic investigation on quality of internal audit function, forensic investigation influence quality of internal audit function in medium scale firms, your organization carry out forensic investigation when need arises, forensic investigation can help in reviewing existing internal control in medium scale firms, forensic investigation can help guarantee the safeguard of assets from unauthorized use in medium scale firms and forensic audit can guarantee strategic prevention of fraudulent activities in medium scale firms.

Table 4.2.0 shows the responses of the respondents on whether forensic investigation influence quality of internal audit function in medium scale firms.

Table 4.2.1 shows the model summary. From the table it shows the coefficient of determination (R-square) means that out of the total variation in the dependent variable, Forensic investigation influence quality of internal audit function in medium scale firms, and the independent variables explained 79% of the variation. The Durbin-Watson confirms that autocorrelation does not exist since the value is approximate to 2. Table 4.2.2 shows the significance of the independent variables. From the table it indicates that all the

variables were statistically significant since their p-value is less than 0.05. Table 4.2.3 show the p-value of 0.000 which less than 0.05, Hence, it can be concluded that forensic investigation influenced quality of internal audit function in medium scale firms.

Table 4.2.0: Forensic investigation influence on quality of internal audit function in medium scale firms

	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree(1)	\bar{X}
Quality of internal audit function in medium scale firms can be guaranteed by forensic investigation	73.2	24.3	0.4	2.2	-	31.4
Forensic investigation can be compromised in medium scale firms	19.5	80.5				28.2
Forensic investigation relied on the independence of internal auditor in medium scale firms	73.9	6.3	1.1	9.2	9.6	28.5
Forensic investigation increases confidence in the quality of work undertaken by internal audit in medium scale firms	53.7	28.7	1.8	11.8	4	27.7
Size of firms determines the influence of forensic investigation on quality of internal audit function in medium scale firms.	37.9	24.6	2.2	18	17.3	23.1
Forensic investigation influence quality of internal audit function in medium scale firms	30.9	46	1.5	17.3	4.4	25.5
Your organization carry out forensic investigation when need arises	44.8	21.6	0.4	14.6	18.7	24.1
Forensic investigation can help in reviewing existing internal control in medium scale firms	36	23.2	1.5	22.8	16.5	22.6
Forensic investigation can help guarantee the safeguard of assets from unauthorized use in medium scale firms.	59.6	10.7	0.4	14.3	15.1	25.9
Forensic investigation can guarantee strategic prevention of fraudulent activities in medium scale firms	61	16.2		6.6	16.2	26.8

Source: Author's computation

Table 4.2.1 Model summary

	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
	.550	.534	.79435	2.071

Source: Author's computation

Table 4.2.2 Coefficient of estimates

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	3.475	1.108		3.136282	.002
	Quality of internal audit function in medium scale firms can be guaranteed by forensic investigation	1.132	0.093	0.068	12.172	.015

	Forensic investigation can be compromised in medium scale firms	0.862	0.187	-0.121	4.60963	.045
	Forensic investigation relied on the independence of internal auditor in medium scale firms	0.372	0.049	-0.086	7.59184	.013
	Forensic investigation increases confidence in the quality of work undertaken by internal audit in medium scale firms	0.632	0.054	0.624	11.7037	.000
	Size of firm determines the influence of forensic investigation on quality of internal audit function in medium scale firms	0.17	0.047	-0.093	3.61702	.001
	Your organization carry out forensic investigation when need arises	0.116	0.0391	0.022	2.97401	.006
	Forensic investigation can help in reviewing existing internal control in medium scale firms	0.78	0.051	0.104	15.29412	.010
	Forensic investigation can help guarantee the safeguard of assets from unauthorized use in medium scale firms	0.14	0.039	-0.055	3.58974	.005
	Forensic investigation can guarantee strategic prevention of fraudulent activities in medium scale firms	0.358	0.039	0.077	9.179487	.019

Source: Author's computation

Table 4.2.3. ANOVA Regression

		SS	df	MS	F	Sig.
	Regression	198.623	9	22.069	34.974	.000
	Residual	162.795	258	.631		
	Total	361.418	267			
Source:						
Author's						
computation						
Note : SS = Sum of Square MS = Mean Square						

5. Conclusion and Recommendations

Based on the findings and analysis carried out, it can be concluded that forensic audit has significant relationship with quality of internal audit function in medium scale firms and it influenced the quality of internal audit functions.

Based on the findings and conclusions, the following recommendations were made:

- Medium scale firms need to employ quality forensic analyst.
- Medium scale firms need to make use of modern- day technology to aid the forensic application and investigation.

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DYNAMIC CAPABILITIES AND ENTREPRENEURSHIP

Ph.D. Ioan-Emanoil CĂLIN

"Valahia" University of Targoviste, Romania

E-mail: calin.emanoil@yahoo.com

Abstract: *The dynamic capabilities are considered to be the expression of high organizational agility, regardless of the size and purpose of the organization. The theoretical approaches regarding the dynamic capabilities tend to associate them with the ambidextrous organization characterized by an optimal ratio between the exploration and exploitation activities. The dynamic capability is defined by three key elements: learning capacity, integration and coordination capacity and the ability to generate feasible solutions in relation to some optimal criteria. The entrepreneurship is based on innovation, risk-taking and optimal use of the resources available within a lucrative activity. The entrepreneur's appetite for innovation and risk-taking is a specific feature of the exploration activity while the optimal use of resources in a lucrative sense is the expression of the exploitation activity. The purpose of this article is to bring to the fore that the entrepreneurial initiative and its materialization imply the creation and operation by the entrepreneur of one or more dynamic capabilities.*

Keywords: *Dynamic Capability, Entrepreneurship, Innovation, Management.*

JEL Classification: *L26, M19.*

1. Introduction

The general objective of any economic entity is to position itself appropriately in a competitive environment and to gain a competitive advantage. Competition for market share, public image and financial results has several valences, some of which are most often very little visible. Such a little-seen competition is competition for the generation and use of dynamic capabilities in Schumpeterian economic contexts.

The Schumpeterian economic context is par excellence one in which entrepreneurship manifests itself, regardless of whether it is attributable to an organization or an individual. Dynamic capabilities, as they are identified in the literature, as vectors for generating, capturing and exploiting opportunities are congruent as a way of manifestation and the intended purpose of entrepreneurial activity. This congruence can be identified both in the plan for the allocation, combination and use of accessible resources and in terms of agility and adaptability, as an expression of innovation in accordance with the optimal criteria imposed by the competition.

The existence of an entrepreneurial predisposition - even if it is a predominantly speculative one, will generate behaviors and entrepreneurial profiles through which the attributes of dynamic capability are capitalized. The dynamic capability gives consistency and coherence to the entrepreneurial approach from a managerial perspective, ensuring the convergence between the initial business idea and the tangible result obtained through the economic entity that materializes the entrepreneurial initiative. Basically, entrepreneurship is a form of expression of dynamic capability, whether it is approached at the individual level or at the level of an organization with an entrepreneurial appetite.

2. Dynamic capabilities

The concept of *capability* can be outlined by the simultaneous presence of three key elements: *capacity* - in a quantitative sense, with direct reference to the resources involved (information / knowledge resources, human resources, material / financial resources); *ability* - in a qualitative sense with direct reference to the levels of heuristic knowledge and technical expertise held by an economic entity in the main field of activity or in related fields; *intention* - the manifest action for the lucrative materialization of the capacity and ability held.

Dynamic capability is considered as a pragmatic form of manifestation attributable to an already formalized, functional organization, in which there is a constant concern for innovation, whether it is incremental or radical.

Dynamic capability is presumed to be a specific feature of the ambidextrous organization - in which there is an optimal ratio between exploitation activity and exploration activity.

The dynamic capabilities in the composition of an organization act as facilitators for the implementation of incremental innovation at the exploitation level and ensure the sustainability of radical innovation in the exploration activity, thus contributing to the competitive advantage (Durisin and Todorova, 2003, p.7).

There are a large number of proposed definitions for the concept of dynamic capability and a high heterogeneity in terms of their content. The research carried out on this concept is focused on two major areas of interest: on defining it as comprehensively as possible and, respectively, on identifying the concrete way to operationalize such a capability.

A comprehensive definition of dynamic capability is generable in the conditions in which a set of functions attributable to it can be identified, without a priori conditioning the formalization and functioning of a dynamic capability within an organization, even if it is ambidextrous. The recourse to this approach allows the identification of functions directly associated with dynamic capability from a perspective closer to entrepreneurship than to classical organizational management.

The dynamic capability is subsumed to a lucrative entity, its operation being oriented towards the generation and use of new ways - in relation to optimal criteria, usable for obtaining the competitive advantage. Practically, dynamic capability is a tool through which latent or manifest opportunities in the market can be identified and capitalized, which gives it including a speculative dimension, specific to the background of the entrepreneurial approach.

The definitions generated for the concept of dynamic capability combine the three characteristics associated with capability in general - capacity, ability and intention, contextualizing them depending on the initiator - organization or individual, the adopted reference - internal environment, external environment, and intended purpose - organizational agility, competitive advantage, additional income, profit, innovative product.

An interesting aspect of the manifestation of dynamic capability is the duality of the effects possible to be generated by it: in the market of interest - the intensification of the competition; internally - recalibration and optimization of specific internal processes.

In order to emphasize the heterogeneous character of the approaches regarding the concept of dynamic capability, we opted for the exemplification of some of its definitions, according to Table no. 1 below.

It is generally accepted that the formalization and use of a dynamic capability involves a cost and that the intensity of competition visible in the market only partially and unrepresentatively reflects the competition for the generation and use of dynamic capabilities (Călin, 2019, p. 70).

Table no. 1. Dynamic Capability

Authors	Definition proposed
Teece, D.; Pisano, G. (1994)	Skills or capabilities that allow a company to create new products and process that respond to changing market circumstances.
Henderson, R.; Cockburn, I. (1994)	The ability to create, develop and recombine resources in order to identify new sources of competitive advantage.
Zahra, S.A. (1999)	Capabilities that can be used as platforms for generating new goods, products and services when change is the rule in the market.
Makadok, R. (2001)	An alternative mechanism for generating sources of income.
Lee et al. (2002)	Dynamic capabilities are designed to sustain competitive advantage in Schumpeterian economic regimes (dominated by creative destruction).
Zollo, M.; Winter, S.G. (2002)	Functional models of collective activities through which the organization systematically generates and modifies current routines in order to optimize profit.
Zahra, S.A.; George, G. (2002)	Dynamic capabilities ensure the reconfiguration of the company based on available resources in order to obtain competitive advantage by adapting it to market conditions.
Helfat, C.E.; Peteraf, M.A. (2003)	An entity that quickly adapts, generates, integrates, and reconfigures resources or other capabilities.
Augier, M.; Teece, D. (2007)	The inimitable ability, through which a company forms, reforms, configures and reconfigures its asset base to respond to market changes and technological challenges.
Oliver, C.; Holzinger, I. (2008)	The ability of companies to maintain or create added value by developing and implementing internal skills that allow them to adapt to the requirements of the ever-changing environment.

Source: ROSSATO, Jaqueline, ZULOAGA, Irati Alkorta, ALGUEL, Pinar (2011). *Making use of the Dynamic Capabilities to deal with Complexity*. Term Paper, <http://www.dynamic-sme.org/es1/sites/default/files/84375280-TERM-PAPER-Making-use-of-the-Dynamic-Capabilities-to-deal-with-Complexity.pdf>, pp. 7-8

It is noted that a dynamic capability recombines in an innovative and lucrative way the resources available or possible to be attracted with the aim of economic success, including through the use of creative destruction. An important feature attributed to the dynamic capability is the difficulty of its replication by the competition. This inimitable character derives mainly from the strictly subjective perception of the initiator on the concrete way of exploiting the identified opportunities.

An interesting approach to the concept of dynamic capability is the one in which it is seen in terms of potential. Thus, for a profit oriented entity, company or individual, dynamic capability is defined as its potential to generate solutions systematically, based on a native ability to perceive opportunities and threats in the environment of interest, to make decisions timely and exploitable in the market and to continuously change the base of usable resources (Barreto, 2010, p. 271).

Basically, dynamic capability encompasses the following key features: the ability to integrate and coordinate resources and processes, the ability to learn, the ability to generate solutions in relation to optimal criteria (Protogerou et al., 2008, p. 4).

3. Entrepreneurship and dynamic capabilities

Entrepreneurship is a concept that takes care of the manifestation of the entrepreneur, regardless of its nature. This concept is studied and debated, in terms of the economic and non-economic perspectives with a many and in terms of the non-economic perspective, with multiple contextual valences: sociological, anthropological, psychological, etc.

The concept of entrepreneurship has evolved from the speculative dimension attributable to the creative destruction invoked by Schumpeter to a societal dimension, through the direct and indirect effects produced by entrepreneurial manifestations.

An overview of the evolution of this concept can be captured by invoking some representative definitions from the perspective of a possible correlation with dynamic capability, thus (Lanstrom, 2005, p. 11):

- Peter F. Drucker (1985): innovative act that ensures the generation of added value, based on resources development process;
- William B. Gartner (1988): a process of operationalizing for-profit entities;
- Jeffry A. Timmons (1997): a way of thinking, a form of reasoning and a way of action, guided by opportunity in a holistic approach valued by leadership;
- Sankaran Venkataraman (1997): is the way in which, by whom and with what consequences are discovered, created and exploited the opportunities through which novelty goods and services can be generated.

The societal dimension of entrepreneurship is derived from its socio-economic character by the fact that entrepreneurship is a dynamic and social process, where individuals, alone or in co-operation, identify opportunities and do something with them to reshape ideas to practical or aimed activities in social, cultural, or economic contexts (Berglund and Holmgren, 2013, p. 18).

The recourse to the societal dimension of entrepreneurship is best represented by the concept of sustainable entrepreneurship, defined as transforming market opportunities into a gain, with economic and non-economic value, with addressability at the level of individuals but also at the macro economic and social level (Hisrich et al., 2017, p.20).

The definitions presented outline that the entrepreneurship can be approached from a processual perspective: input - transformation - output - recalibration.

Entrepreneurship is seen as a process through which changes can be initiated and generated at the level of an organization or at the level of various social domains [Hope, 2016, p. 104].

Entrepreneurship as a process, as represented in the figure, is correlated with the attributes of dynamic capability, both in the initial phase of entrepreneurial activity and later, as the entrepreneur becomes the manager of the initiated business.

The potential entrepreneur, based on a business idea and in accordance with his own profile (education, motivation, personality, etc.) becomes a committed entrepreneur. The transition from the status of potential entrepreneur to that of a committed entrepreneur is made based on his intention to capitalize on the opportunities seized and to take the latent risks in the environment of interest.

The involved entrepreneur materializes the business idea by operationalizing a lucrative economic entity, usually a company. This involves both ability and skill, as they were associated with dynamic capability.

Considering entrepreneurship as a multi-valence process, it can be shown as in the figure below:

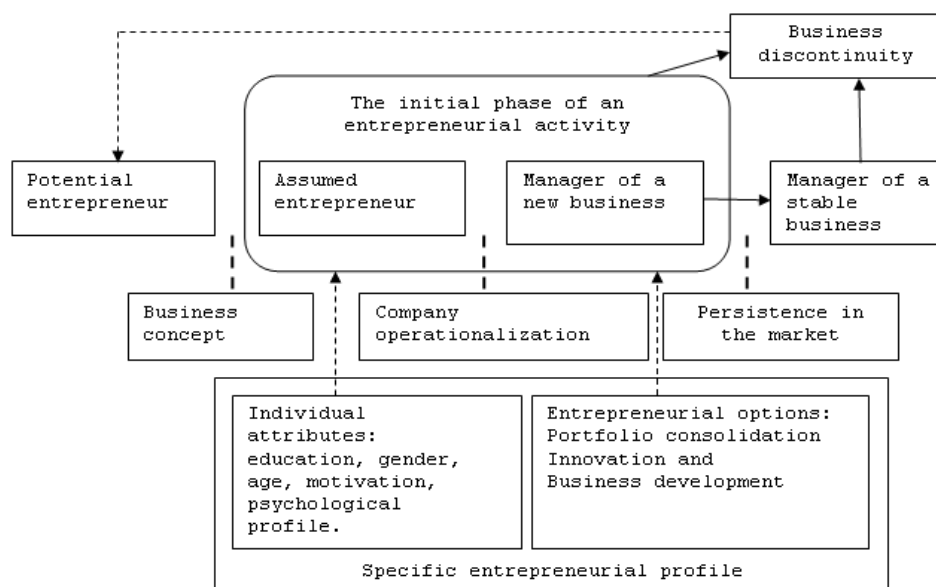


Figure no. 1. The Entrepreneurial Process

Source: adaptation after Niels BOSMA & Donna KELLEY, Global Entrepreneurship Monitor 2018/2019 – Global Report, p.16.

Basically, the initiation and development of the activity through which the business idea is valued involves the allocation and attraction of available resources. The efficiency and effectiveness of the entrepreneurial effort is given by the entrepreneur's ability, both in terms of the speculative dimension of the entrepreneurial approach and in terms of the decision-making process, with emphasis on the size and way of combining resources, both in the initial phase of running the business, as well as later, from the position of manager of a business that has become stable.

The ability, from the perspective of heuristic knowledge and expertise, at the level of the entrepreneur is most often reflected by the evolution of entrepreneurial options.

Thus, the entrepreneurial process can usually be directed in two directions, each of them facilitating or not facilitating a qualitative leap: consolidating the current business portfolio or its innovation and development at another level.

Entrepreneurial success can be evaluated from multiple perspectives, depending on the motivation that was the basis of the initial approach. Business development is often associated with the longevity and market persistence of the economic entity that embodied the initial business idea. This sustainable remnant of the economic entity in the market presupposes an entrepreneurial approach supported by the recourse to the attributes of dynamic capability.

Table no. 2. Specific Features related to Dynamic Capability and Entrepreneurship

Specific Feature	Related to Dynamic Capability	Related to Entrepreneurship
Capacity – quantitatively (resources)	Yes	Yes
Ability - in qualitative sense (expertise, risk management)	Yes	Yes
Intention – speculative and profit oriented	Yes	Yes
Integrating and coordinating resources and processes	Yes	Yes
Learning / assimilation capacity	Yes	Yes
Generating competitive solutions	Yes	Yes

Source: own conception

Successful remaining in the market and conducting a stable business through a mature economic entity involves the generation of competitive solutions in relation to optimal criteria. Basically, the entrepreneur, within his options - consolidation of current portfolio or innovation and business development, will be forced, in a natural way to integrate and coordinate processes and resources, to learn about the field of activity or related fields and to generate more solutions that reality will test for validity. An optimal solution for the entrepreneur can be represented by leaving the business and resuming the entrepreneurial process with another business idea, absolutely new or complementary to the previous one.

4. Conclusions

Both dynamic capability and entrepreneurship are intensely debated concepts and characterized by a high heterogeneity in terms of the specific elements attributable to each of them. These characteristic elements are most often dependent on the context and reference taken into account in theoretical research.

For both concepts there is a core characteristic: the orientation on capitalizing on opportunities in order to generate added value, either through a novelty product, or through innovative ways / processes, superior to those already known.

Both entrepreneurship and dynamic capability are two versatile concepts in terms of utility. Both can be identified as working tools at the level of socio-economic organizations or systems.

Dynamic capability involves a certain type of behavior of the economic entity through which the initial business idea is operationalized. Basically, the dynamic capability is embedded in the economic entity through which the entrepreneurial process is expressed in the market.

However, regardless of the speculative predisposition and risk appetite of the entrepreneur, the formalization of the initial business idea and the persistence in the market in the medium and long term require from him a behavior assimilable to the concept of dynamic capability.

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INNOVATION OF HUMAN RESOURCES MANAGEMENT IN THE CONTEXT OF THE ORGANIZATIONAL SUSTAINABILITY

Postdoctoral Researcher, Carmen Mihaela BOTEANU

"Valahia" University of Târgoviște, Romania

Ph.D. Student Gabriela Elena BIȚAN

The Bucharest University of Economic Studies, Romania

E-mail: gabriela_bitan@yahoo.com

Professor Ph.D., Ionica ONCIOIU

"Titu Maiorescu" University, Bucharest, Romania

Lecturer Ph.D., Ana Maria IFRIM

"Titu Maiorescu" University, Bucharest, Romania

Abstract: *This article analyzes the role and the place of innovation in the sustainability process of an organization and in the economy. The authors consider that the fundamental economic changes that take place permanently, influence the quality of the innovative process within the companies and their sustainability. The need to approach an innovative process in sustainability is a necessity in this days when companies have to reinvent themselves to continuing working. Applying new information technologies and building partnerships between higher education system and business environment is an obligation for each organization in the process of reorganizing and restructuring the assumed mission. The need to develop new approaches and to identify new priorities for development will provoke companies to focus on the innovation process in the context of sustainability. The objective of this paper is to propose a model that integrate the concept of innovation management in the process of develop a sustainable company.*

Keywords: *innovation of human resources management, organizational sustainability, economic sustainability, labor productivity.*

JEL Classification: *M14, O43.*

1. Introduction

The sustainability of companies is based on strategies developed by organizations and is influenced by external factors: legislation, technological developments, specific context in a particular market, socio-cultural conditions, environmental factors (Baumgartner and Ebner, 2010) and internal factors such as economic, managerial and human.

The present paper is related to the innovation management from the point of view of the companies that operate in the field services. From this point of view, innovation has become a critical issue as a result of globalization and of the need to have a higher financial performance.

With this paper we intend to integrate the analysis from the point of view of innovation management in the context of the sustainability of a company in the field services with the analysis of the profitability of the respective company. We choose the field services because it constantly changing due to the fact that all the companies are trying permanently to optimize the processes in order to increase the financial performance. However, the process presented in this paper can be applied to any company in any field of activity.

The starting point in the elaborated process was the necessity to analyze the main needs that put the mark on the financial indicators of the business. Later, in a second stage of the analysis, the economic indicator which is directly influenced by the innovation process is presented. The analyzed indicator provides a clear picture of the financial sustainability of the business.

The aim of the presented paper is to integrate the economy and innovation elements in the context of sustainability and profitability of the company.

The paper is structured as follows: first chapter is a literature review about the knowledge, studies and analyzes in the field of work, second chapter presents the methodology that propose an integrated approach for innovation and profitability, third chapter is about data analysis and the last are the conclusions where the result of the approach is presented.

2. Literature review

Companies are constantly interacting with internal and external factors that generate possible uncertainties about their possibility of being able to reach their own goals.

The sustainability of the organization has been synonymous with the sustainability of the environment, perhaps due to the evolution of the concept of sustainable development that, in the last decades, has targeted three types of capital relevant within the concept of sustainability: economic, natural and social capital. In this context, emphasis is placed on social, environmental and financial performance in the context of the sustainability of companies, using risk management as a tool.

Thus, economic and socio-human performance lead to financial performance, financial performance leads to ecological and social performance. It turns out that financial performance, ecological and social performance are synergistic.

Research on sustainability measurement elements and techniques has grown in recent years and has explored a variety of issues. The specialty literature is divided regarding the measurement of sustainability, due to the fact that it is closely correlated with the measurement and management of the performance of an organization. Thus, three main ways are analyzed in terms of measuring sustainability: emphasizing the roles of stakeholders in designing, implementing and using measures; indicating how to establish common measures and share data between organizations and adopting new theoretical perspectives (Mura et al., 2018).

Regarding innovation, there are concerns at European and internationally level. The International Organization for Standardization, through the ISO/TC279 Technical Committee, has developed a new set of standards, ISO 56000, that will help organizations maximize their innovation management processes and get the best results from new ideas. Until now, 4 standards of this series have been published (one in 2020 and three in 2019) and other 4 standards are under development. (ISO) At European level, the Technical Committee CEN/TC 389 - Innovation Management has developed the CEN/TS 16555 series of standards. The first part of this series, published in 2013, is under review, and the other 6 parts have been confirmed until 2021. (BSI) In Romania, the Technical Committee of ASRO, CT ASRO 383, published in 2016 the standard SR 13572: 2016 - Innovation management systems. Requirements (ASRO).

The extension of the research about the contribution of knowledge management and innovation to sustainability activities should be regarded as a longitudinal research project. (Maier et al., 2019) Recent global trends in corporate sustainability management place greater emphasis on achieving more forms of social viability rather than traditional economic or environmental approaches. Applying a process of innovation oriented towards sustainability it can be observed that the innovative practices within the companies largely reflect an economic concentration on sustainability, followed by some activities in the environment field. However, it can be said that innovation has an interdisciplinary approach and emphasizes both social/community issues and the fact that organizations are still mainly lead by financial considerations. (Gloet and Samson, 2020)

The commitment of the organizations for sustainability can be explained by the interactions between the internal strategic decisions of the companies and the external

environment in which they operate. Many theoretical approaches, including stakeholder theory, legitimacy theory, institutional theory and signaling theory, provide economic and institutional reasoning that explains why sustainability has become a priority for many companies. Economic changes have modified the mechanisms that allow companies to implement environmental sustainability strategies in their business models, observing how innovation creates sustainable business models (Bellucci et al., 2020).

3. Methodology

The main objective of the proposed model is to integrate the concept of innovation management in the process of development a sustainable company.

As it is known, innovation can produce both financial and non-financial benefits for the organization. The innovation management of the company decides which evaluation indicators are targeted in the process of ensuring the sustainability of the organization. Within this methodology, labor productivity is analyzed, an indicator that relates to the internal potential of the organization and the efficiency of its use. This indicator is analyzed from the perspective of the impact generated by the model implemented in the company.

The organization must constantly develop tools and methods that lead to increased productivity. Increasing this indicator leads to the development of ways to improve the business. The effectiveness reflects the degree of fulfillment of the external expectations (customers, state, suppliers, employees, shareholders) and the efficiency is measured by the degree of fulfillment the expectations of the internal environment of the company. This conception is embraced by some authors (Jianu, 2007; Mura et al., 2018) who consider that $\text{Performance} = \text{Productivity} + \text{Efficiency}$ or $\text{Performance} = \text{Effectiveness} \times \text{Efficiency}$. Other authors combat this point of view, considering that productivity expresses only a factual situation. Only because a company is productive does not mean that it is performing. Similarly, efficiency is the value expression of productivity. Benchmarking is other indicators that should be included here, because it can be productive or efficient, but not as good as competitors. The human resources and how they manage represent a safe way to ensure the economic efficiency in an organization and implicitly, the sustainability.

The present methodology emphasizes the changes within an organization as a specific content of the innovation. The change is a specific function of innovation and can be defined by the following typical changes: new equipment, new technological processes, new approaches in the process of selling new products, using of new raw materials, changes in the process of production management and logistics and, not least, the approach of an integrated strategy of human resource. Thus, within the present model, the impact of an innovative approach on the human resource will be analyzed, in the context of the organization's sustainability and implicitly, of its profitability.

As we have specified, the analyzed company is in the services field (for confidentiality reasons the name of the organization will not be used).

The proposed research methodology implies a practical approach, both from a quantitative and qualitative point of view. The main assumption from which we start to develop this process is that the innovation management and sustainability must be a foundation in the development process of an organization, in the context of globalization.

In approaching the quantitative and qualitative implementation of some innovation elements within the human resources processes, we considered the use of the output elements of the decision tree technique.

The proposed methodology is based on the decision tree model, applied in the decision process regarding the accepted innovative element. This is an integrated conceptual model, which involves the development of the innovation management system

in terms of human resources and the impact that these human resources have on the financial results of the company. In this sense, it is analyzed the way of carrying out an activity within the organization in contrast with other proposed approaches, which can bring elements of innovation in the human resources process and, implicitly, to the business sustainability.

To begin with, an analysis is performed on the current situation of the company, using the model presented in Table no. 1.

Table no. 1 Analysis of the current situation

Indicator	Unit of measurement	Year n-2	Year n-1	Year n
Average working day duration	hours/day			
Average number of days worked per year	days/year			
Average hourly labor productivity	Lei/hour			

Source: Authors' own development based on literature review and experience

The indicators presented above will be used to calculate productivity indicators:

- Daily productivity = Average working day duration x Average hourly labor productivity
- Annual labor productivity = Daily productivity x Average number of days worked per year

In the reference year innovative methods regarding the efficiency of human resource activities were applied. In the context, using this model, we identified the variation of annual productivity.

4. Data analysis

As we have mentioned, the analyzed company operates in the services field, offering management consulting and has 30 employees working in various departments. From management reviews it was concluded that labor productivity is the cause of the company's inability to grow. A clear analysis of the positions, the activities carried out by each human resource and the degree of load for each activity was realised. In this sense, at organizational level, the following factors have been identified that influence the productivity of work:

- a. Extensive factors:
 - Average working day duration: interruptions of the working process due to the primary needs, personal needs, deficiencies in the process of developing new services, lack of an efficient information system
 - The average number of days worked: conflicts between employees, failure to implement company plans and projects in a timely manner
- b. Intensive factors:
 - High-performance technology for the implementation in good conditions of the activities
 - The degree of professional training
 - The material co-interest system
 - The human resource control function.

At the moment when these factors were identified, the company had two alternatives to ensure its sustainability:

1. Reduction of the number of personnel which would have led to a reduction of expenses

2. Developing an innovative plan that involves an additional investment, but which can be recovered in time.

After applying the decision tree method, it was concluded that the risk is higher in the second situation, but the financial results are much better. This is the reason why it was decided to develop an innovative plan that involves an additional investment that can be recovered in time.

The identified factors determined that the productivity of labor in year 2017 and 2018 was lower than in year 2019 when an innovative plan was implemented in order to increase labor productivity.

At the end of the year 2018 was developed the plan that emphasized all the elements previously identified:

- a. Extensive factors:
 - Average working day duration:
 - work contracts were re-enacted with employees focusing on achieving the objectives assumed periodically. In this sense, the working day was no longer analyzed from the point of view of the 8 hours worked and from the point of view of the achieved objectives. If the objectives are reached, each employee could use the lefted time for personal or primary needs.
 - an integrated information technologie system has been developed that has made human resource activity more efficient.
 - The average number of days worked: the introduction of the previous elements reduced the appearance of conflicts between employees and the lack of operational capacity of the organization's projects.
- b. Intensive factors:
 - The acquisition of the information technologie system together with the acquisition of the equipment needed to carry out the activity, led to the implementation in good conditions of the organization's activities.
 - Realization of a professional training plan, based on a 360 degree evaluation, led to a clear identification of the competences of the employees.
 - Development of the material co-interest procedure based on the activity carried out on objectives.
 - The function of control of the human resource is more efficient due to the developed information technologie system, as well as the objects related to each activity and each position.

The analyzed information are shown in the next table (Table no.2).

Table no. 2. Analysis of the situation from the point of view of labor productivity

Indicator	Unit of measurement	Year 2017	Year 2018	Year 2019
Average working day duration	hours/day	6,2	6,8	7,4
Average number of days worked per year	days/year	240	240	231
Average hourly labor productivity	Lei/hour	14000	14000	18200

Source: Authors' own development based on the developed model

Based on the indicators presented above, we can calculate the daily productivity, the annual labor productivity and the variation of the annual labor productivity. (Table no.3)

Table no. 3. Analysis of the indicators regarding labor productivity

Indicator	2017	2018	2019
Daily productivity	86800	95200	134680
The annual labor productivity	20832000	22848000	31111080
The variation of the annual labor productivity	-	2016000	8263080

Source: Authors' own development based on the developed model

Thus, the labor productivity that expresses the effectiveness of the total labor cost through the production of goods and services at the level of the organization, is an important element that has led to the increase of the income within the company.

5. Conclusion

Increasing the labor productivity involved essential changes in the entire work process, by combining and using the factors of production. Due to this changes, the working time for provision a service is reduced, so with the same amount of work it produce a big amount of goods. The objective tendency to save the social work finds its expression in the law of the increase of the labor productivity, which reflects the causal relation between the level of the development of the material factors of production and the yield of the human factor.

In this sense, the innovative plan proposed by the company was based on the development of a process of analysis, evaluation and management of human resources, starting from the primary needs of everyone, continuing with the analysis of each position in accordance with the capacity, openness and competence of each employee, with the final objective to develop a more efficient activity that will lead to a long-term sustainable organization.

The top management of the organization considers that the implementation of this project has been a success in the context of the sustainability of the organization and wants to continue developing other projects within the organization, projects that are based on the efficiency of human resources, but also taking into account of their the needs.

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THE ROLE OF SMALL TOWNS OF THE REPUBLIC OF MOLDOVA IN THE CONTEXT OF REGIONAL DEVELOPMENT

Ph.D., Mihail LUPAȘCU

Academy of Public Administration, Republic of Moldova
E-mail: lupascu.mircea70@gmail.com

Abstract: *The sustainable regional development is an imperative assumed by the Republic of Moldova in front of the European Union for equitable distribution of development opportunities throughout the country. In Republic of Moldova, the role of small towns in the context of regional development is discussed in several strategic documents, in the regional development policy, priority is given to small towns, which ensure social, economic and territorial cohesion with the rural areas higher, compared with the middle cities. The achievement of this goal is supported by development projects, with an increased impact on rural communities as well. This article will research the country's policy framework and development strategies to identify, separately, cities that can become poles of economic growth and cities as urban development poles for balanced regional development rather than development peripherals proposed so far in the Republic of Moldova.*

Key-words *small town, human community, geographical position, population, infrastructure, centrality index, hierarchy, rank, polarization, regional development.*

JEL Classification: *H10, K15, R58.*

1. Introduction

The Cities are geographical concentrations of human activities and interactions. They represent the engines of the economy, providing jobs and services, holding the role of catalysts of creativity and innovation. The diversity of the studies made so far, dedicated to the analysis of the city and its functionality, refer to a series of concepts, such as urban habitat, urban morphology, urban planning, urbanism, urban dynamics, urban image, urban segregation, etc. For the human geography, the city presents itself as an economic "addition", which resulted from the valorization and population of the territory. In this sense, the notion of "settlement" was outlined, which means the process of placing in space of the social forces of production, which includes the capitalization of new territories by humans and their spatial displacement.

In the view of researchers in the field of public administration, the city is defined as a social collectivity, constituted in an administrative unit in order to carry out activities of organization and execution of the law. In accordance with the legislative decisions, the changes in the administrative-territorial structure of the country are approved, including granting or withdrawing the city status of a locality, directly and the administrative rank (balneoclimateric station, city of district subordination, republican subordination city, municipality), which depend on the changes in the demographic and socio-economic level reached by these localities.

For economists, the city is an economic space in which it concentrates on a relatively small area, numerous activities and therefore flows of capital, goods, labor, services, etc.

New cities or small cities play an important role in forming networks of urban settlements, in states with low levels of urbanization. The appearance of these categories of localities led to the formation of a network of dense and branched urban settlements.

The new city is a form of voluntary urbanization, different from the spontaneous development of the suburbs, suburban areas, by putting in place, more or less simultaneous housing, production units, of the services. One of the objectives of creating new cities is to ensure the autonomy of the daily life of the town's people and to reduce the pendular migration (Matei and Mățu, 2008, p.56).

The ascension of the urbanization process on the rural environment was caused by the increase of the level of industrialization and economic activation of the small cities.

The economic basis of these cities formed, in large part, in the post-war period, when most of them became industrial centers with a diversified profile. In these settlements, large companies from various branches of industry were concentrated: food, building materials, machine builders. But, unlike big cities, they have a narrower specialization. Most small towns, becoming centers of administrative districts are fulfilling administrative functions, and of district socio-cultural rank.

2. Development of small towns in the Republic of Moldova

The development of small towns in the Republic of Moldova, in last year's, has become frequently analyzed by experts in the field, foreign donors and the public administration. Not coincidentally, because they have an important role in the system of human settlements of the Republic of Moldova. They represent the largest category of urban settlements. Their appearance is due to the predominantly agrarian character of the national economy, expressed by a high share of the rural population, but also of the economic activities.

In order to establish the role of small and medium-sized cities in the regional development of the Republic of Moldova, the policy documents of the current regional and urban development framework were studied.

Among the most important documents elaborated so far on these very important and main development aspects of the country is the Concept of Urban Sustainable Development of the Republic of Moldova (2004) elaborated by the working group within the Center for Strategic Investigation and Reforms (CISR).

The conception of Urban Sustainable Development was aimed to support the local city public administration bodies in order to develop balanced socio-economic development of cities in interaction with sustainable social-economic development throughout the Republic of Moldova.

The guidelines are addressed to the public administration authorities - local elected, including the technicians - future managers of the urban development process, and are meant:

- Encourage cities to carry out development activities and enable their effective coordination;
- To unify the processes and conditions for the implementation of urban development programs and projects;
- To ensure the coordination of the support for the development projects granted from national public funds and from external funds allocated by partner institutions.

In the appeal to the actions set out in the Charter of European Urbanism, from the beginning it is emphasized that "Europe needs strong and adequate cities and regions for living. Therefore, spatial planning is vital for Europe's future". This openness to the problems of the community, or part of the community, causes a change of perspective whereby solving problems involves not only remedying the effects of a crisis state, but in particular eliminating the causes of these crises.

- According to the European Commission Communication, "economic prosperity, social cohesion and environmental protection must be complementary goals of self-consolidation of the sustainable urban strategy that will:
- improve the economic vitality of cities, especially in the lagging regions, by encouraging entrepreneurship and implementing innovations, increasing productivity and exploiting new sources of use in both medium and small cities in order to promote the balanced urban polycentric European system;

- organize access to the benefits reasonably obtained from increasing productivity and competitiveness and reducing social exclusion and improving the level of security, intensity of the degree of liquidation of wastes, competitiveness and supporting small and large cities;
- make cities to be supported in order to protect the environment and will avoid taxing costs directly related to environmental development, rural areas, regions, the planet itself or future generations;
- encourage innovative and flexible decision-making processes as well as urban institutions that will expand participation and integrate partners' actions in the public, private and communal urban sectors, from European to local level, and increase synergy and cooperation between resources and existing institutional processes.”
- The transposition of European objectives into local measures for strengthening the competitiveness and identity of cities, integrated urban development are provided for by:
 - Leipzig Charter for Sustainable European Cities, adopted at the informal ministerial meeting on urban development and territorial cohesion on 25th May 2007.
 - Charter of European Urbanism, adopted by the General Assembly of the European Council of Urbanists in Barcelona of 12th April 2013.
 - The European Landscape Convention, adopted on 20th October 2000, Florence; etc.

According to the New Urban Agenda, adopted in October 2016 at the United Nations Conference in Quito, Republic of Ecuador, the development aims to improve the quality and increase the attractiveness of the urban environment and the urban design for the benefit of the citizens, the economy and the society as a whole.

Therefore, the creation of the city development system in the Republic of Moldova comes in the changing the urban paradigm regarding the way of planning, financing, developing and governing the cities. This system should be based on the current and future needs of the cities, taking into account the specifics of each area.

Law no. 835 of 17th May 1996 regarding the principles of urbanism and spatial planning (Law no. 835/1996), promotes the guiding principles on territorial planning and urbanism, which include: determining the functional structure of the localities; the rational and balanced use of the land necessary for urban functions in localities; ensuring a adequate living to the needs of people, ensuring the conditions for meeting special needs of children of elderly persons, persons with disabilities; protection, conservation and highlighting of historical monuments, archaeological sites and monuments; ensuring a favourable environment and sustainable use of natural resources; implementation of security and energy efficiency policies.

The implementation of the instruments addressed to the cities within the regional policy implies an operational-functional approach of the urban policy. This approach takes into account the transition period for the implementation of the National Strategy for Regional Development for the years 2016-2020, according to the premises, in which new instruments for the implementation of the regional policy are prepared and introduced (eg. tools dedicated to cities). In developing this objective from 23rd of December 2016, the New Urban Agenda was adopted, which emphasizes the promotion of safe and inclusive approach, prosperous and innovative, ecological settlements.

Providing adequate housing and basic services is in close connection and even the result of the entire complex of policies regarding the sustainable development of the society. The new Urban Agenda will be correlated with the strategic objectives in the political, economic, social and environmental field, with the commitments of the Republic of Moldova taken in accordance with the international agreements. Housing and service

insurance policies will be based on the principles promoted by the UNO regarding the human rights to adequate housing, as well as on the criteria of proper housing assessment on the guarantee of possession, endowment with utilities and services, access to services, accessibility in terms of costs.

The priority policy areas for this objective are: Construction and Urbanism, Transport, Environmental Protection and Natural Resources as well as Regional Development. By relevant national policy documents we mention: National Development Strategy “Moldova 2020”, Transport and Logistics Strategy for the year 2013-2022, Tourism Development Strategy “Tourism 2020”. The Environment Strategy for the years 2014-2023.

All the targets in objective 11 are also found in the Association Agreement. The most tangents are observed in the following chapters of Title IV of the Agreement: chapter 4 (Employment, social policy and equal opportunities), chapter 15 (Transport), chapter 16 (Environment), chapter 19 (Tourism), Chapter 20 (Regional development, cross-border and regional cooperation), Chapter 22 (Civil protection) and Chapter 25 (Cooperation in the field of culture, audiovisual policy and mass media).

The opportunities offered by the Association Agreement of the Republic of Moldova with the EU (The Association Agreement between the Republic of Moldova, on the one hand, and the European Union and the European Atomic Energy Community and their Member States, on the other hand, ratified by the Law of the Republic of Moldova No.112 of 02.07.2014. Official Gazette of the Republic of Moldova, 18.07.2014, no. 185-199) to adapt to the conditions of Moldova to the solutions confirmed by the experience of the European states. The legal framework in the field of housing, which is already quite consistent, is to be processed to establish the mechanisms for the implementation of the stated principles and objectives, which would provide for the vertical and horizontal rational delimitation of the functions and responsibilities within the public administration, establishing mechanisms for inter-institutional correlation and dialogue with the interesting parts in civil society and the business environment.

3. Efficiency of the urban development process

According to the experiences of the western states, and more recently, Romania is also trying to implement the polycentric model - the economic growth poles and the urban growth poles within each development region.

The cities - poles of economic growth correspond to concentrations of dynamic industries, where the investments generate important effects of training on the regional economy. Their effects influence not only the structure of the economy of the region in which they are located but also the proportion and intensity of economic flows between regions.

Urban development poles play, on the one hand, the binder role between the growth poles and the other small and medium-sized cities in the country's urban system, and on the other, they have the role of counterbalancing the development of large cities in each region and creating favourable conditions for polycentric regional development, coming and/or attenuating the trends of unbalanced development within the regions, in the context of predominantly mono-centric urban regional systems.

It is necessary to review the strategy of “industrialization” of small and medium-sized cities through the creation of industrial parks, which is hypothetical. The industrial parks can be developed only in the big cities, where there are conditions for the formation of the industrial clusters (scientific and innovative potential, institutions for the training of the qualified personnel, human and material resources). Small cities do not have such

potential. The feasibility studies elaborated regarding the Industrial Parks are not supported by in-depth research in the field of labor force insurance.

The efficiency of the urban development process is characterized by: the cooperation between the public administration institutions at central and local level. Knowledge of local realities and identification of intervention measures, elaboration and implementation of policies, realistic urban development policies and programs, efficient and sustainable partnerships with the local community, the private sector and all interested parts through support and openness to dialogue with civil society structures, information campaigns and promotion, the active involvement of the media.

The meaning of the regional policy, including the support of the urban development, is the liquidation inequality in the social-economic development between the Municipality of Chisinau and other regions, stimulating the development of the "growth poles", which will allow the saving of resources and time, the creation of comfortable areas for the business climate, new jobs, growth of economies of underdeveloped territories. Also, a premise is created for the systematization of territorial statistics. Highlighting in the territory of the Republic of Moldova 10-12 city-centers of the "development regions" will allow the implementation in the Republic of Moldova of the European system of territorial statistics and, as a result, obtaining more qualitative information for carrying out the analysis and making the appropriate decisions (Inforegio, 2019, pp. 40-41).

At the same time, it is appropriate to actively use the financial and technical assistance provided by international organizations and donor countries (UNDP, UNICEF, TACIS, USAID AIDS etc.) in projects to support small business, agribusiness, microfinance, local social and environmental protection initiatives. The concept of Sustainable Development of Localities of the Republic of Moldova, applicable to small and medium-sized cities, implies:

- determining the category of the localities and their functional hierarchy;
- conducting research on detecting and evaluating the malfunctions, eliminating them and setting priorities for each locality;
- monitoring the activity regarding the urbanization, spatial planning and environmental protection; applying international standards in the mentioned fields;
- integration of sector programs at micro and macro level;
- establishing social, economic and environmental links between the cities and the regions around them;
- attracting the population to make the decision in the field of urbanization, spatial planning and environmental protection.

Most of these actions are coordinated at the state level. In addition, according to the European Charter of Local Self-Government, approved by the Parliament of the Republic of Moldova, it is important to promote local initiatives, partnership between neighbouring cities and customs cooperation between neighbouring cities of the regions of Moldova, Romania and Ukraine.

4. Conclusion

In the transition period, the most affected by the demographic and socio-economic crisis were the small cities with a population between 10-20 thousand inhabitants, which constitutes, the basis of the republic's urban network, almost 60% of the total number of cities, with a predominantly agricultural and agro-industrial economic profile, and the degree of susceptibility of this system of localities is determined by the differentiated geographical position within the development regions.

Restoring the welfare and viability of small cities can be achieved, on the one hand, based on centralized and coordinated activities at the state level (legislation, fiscal decentralization, investment promotion, entrepreneurship support, special assistance to vulnerable persons).

Revising the law on the administrative-territorial organization of the Republic of Moldova, that should contain qualitative and quantitative parameters, regarding the attribution of a locality the city status. The model of Romania can be adopted, which provides, in this respect, 16 indicators for two functional categories of urban localities (municipalities and cities).

It is necessary to systematize the network of urban localities according to their functional importance, reflected in the official denomination of the cities. As a principle of the functional hierarchy, the existing system in Romania can be accepted. For the small and medium-sized cities of the Republic of Moldova, the following hierarchy can be applied: II rank municipalities, cities, urban communes.

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PROBLEMS AND BARRIERS IN THE TOURISM DEVELOPMENT OF THE DEVELOPMENT REGIONS OF THE REPUBLIC OF MOLDOVA

Ph.D., Aliona VEȘCA

Academy of Public Administration, Republic of Moldova

E-mail: alionavesca74@gmail.com

Abstract: *The analysis of the main problems and dysfunctions of the tourist field in the development regions, as well as the effects they produce separately or aggregated, suggests the formulation of some challenges for the development of the tourism industry in the Republic of Moldova. The major problems of the Moldavian tourism industry, which are systematized and overlapped on the attributions of the deciding factors in tourism, allows through this research to present a systematized framework of problems to be solved for the country's development as an attractive tourist destination in all development regions. In this respect, the state policy and strategy regarding the tourism development of the Republic of Moldova must be elaborated and realized based on the concept of sustainable development.*

Key-words: *regional development, regional politics, region, tourism industry, SWOT analysis, touristic flows, lasting tourism.*

JEL Classification: *R11, R58, Z32.*

1. Introduction

Tourism is a competitive economic sector, well-balanced developed that values efficiently the representative patrimony of the a country, it promotes the hospitality at high standards, ensures the diversity of citizens' consent.

The tourism sector can be considered one of the basic engines that ensures the economic development and flowering of a country. The touristic patrimony represents the ensemble of elements that lay at the basis of the touristic activity on a certain territory, including touristic natural and antropic resources, technical-material basis, general infrastructure, touristic infrastructure and goods for touristic consume.

A well conceived and administrated touristic sector can help to the conservation of the natural and cultural patrimony on which it depends, to the empowerment of the host communities, the creation of business opportunities, the promotion of peace and intercultural understanding, imminent evidence constituting statistical data.

However it has a small surface, the Republic of Moldova has a considerable touristic potential, represented first of all, by the geomorfological territory – an unusaul diversity of landscape reservations or natural lands and unique geological monuments, of global european value.

The constitution of the Republic of Moldova, guarantees the right to the free circulation through the country, to leave and return to the country (27 art.), the right to the paid leave (art. 43) (Constitution of the Republic of Moldova, 1994). The focus on the citizen is inspired from the right of rest and recreation of any person, promoted by the Universal Declaration of Human Rights (art. 24). At the same time, all recent governamental programmes have promoted the idea of a good governance of the touristic sector via the development of the touristic routes, an attribution that is specific to entrepreneurs in the sector.

The Republic of Moldova dispose of touristic potential but a limited one, by both the small territory and limited natural and financial resources or poorly developed managerial or institutional experience. However, tourism is characterized by the marketing opportunity and legend selling. In addition to the legend of wine and traditions that are still preserved in rural areas, other sweet legends for foreigners are very difficult to invent and it is especially difficult to turn them into a source of income.

The primary forms of tourism practiced in the last decade in the Republic of Moldova are rural, wine, cultural, health and beauty tourism. The history of tourism development shows that we are just at the beginning of the path, and often, namely experience is a decisive factor in promoting national values.

2. Analysis of the current situation and identification of the problems of the Center Development Region

The tourism activity on a global level is also valued by assessment of the position of the different countries in the international tourism structure. Thus, every year the World Tourism Organization carries out an unfolded analysis of the international tourist circulation, exploiting all the destinations in the world.

The impact of tourism on a national economy is measured by a phenomenon known as the multiplier effect of tourism.

Tourism in the Republic of Moldova is considered to be as one of the primary fields of the national economy. Being a service sector, tourism contributes to the development of the economy by capital accumulation within about 12 types of branch-specific activities, attracting in its activity about 20 branches connected to about 140 services related to the tourism sector: catering, transport, production and goods trading, equipment, souvenirs, cultural activities, sport, leisure activities, healthcare etc.

The foreign tourists stay in the Republic of Moldova on average 2-3 days, explained by the nature of business and service trips or short vacation trips. Customers from the tourist-generating countries for Moldova over the last 10 years have shown a relatively steady behavior towards the Moldovan hotel offer, with the exception of tourists from Turkey, who are more dependent on the programs offered by the travel agencies (5-6 days).

The tourist infrastructure constitutes a totality of forms or types of constructions necessary for the communication of a tourist area with other areas, whose existence is necessary before but also during the tourism activity itself. Traditionally, the tourist infrastructure is determined by the networks of: touristic routes, touristic resorts, touristic areas, specialized touristic transport, beaches, complexes to serve tourists. It should be noted that that a large number of tourist service structures to increase efficiency are join in networks or chains with a well-developed corporative management system with high-tech relationships.

In the Republic of Moldova such networks are in the process of being set up. Thus, the travel agencies have elaborated a system of 20 national tourist routes, 7 of which are part of a national program "The Road of Wine", and the government has established by a decision a national system of recreational and leisure areas related to aquatic pools. Nowadays, there is under development a network of accommodation and food structures in the rural area. Such directing management systems have museums and partilly the units for organizing events (theaters, sports complexes etc.).

At the level of the national economy around 13.56 thousand or 3.67% of the employees are in the hospitality field (HoReCa), from this category only every tenth employee (10.66%) is from the hotel, the others being employed by restaurants, cafes and other catering units (Regional Development Agency Centre, 2017, p. 15).

The Central region of the Republic of Moldova covers 13 districts. The economic specialization of the region is: agriculture, especially viticulture and fruit growing, processing industry, trade and services. The tourism industry is somewhat more dynamic than in the rest of the country and consists of 8.6 thousand accommodation places. We note that the vast majority of foreign tourists prefer to stay in the capital. In this region there are 105 summer camps for children, which serves approximately 35-40 thousand people every

year. We would like to mention that the number of summer camps and similar structures in the center of the republic is higher, but these are not covered by the national statistical investigations or those carried out by the National Tourism Authority.

In the central region of the Republic of Moldova there are 124 natural areas of value protected by the state with a total area of 39.4 thousand ha, 2 national resting areas, 40 museums, 274 cult buildings of national importance and 27 of local importance, which gives it an attractive investment attractiveness (Regional Development Agency Centre, 2017, p. 18).

The tourism potential of the Center Development Region is varied and cognitively valuable and sufficient to motivate the journeys to the destinations here. The attractions are expressive and create a clear and persistent image of the region as an forest area with old settlements and many medieval monasteries. The wine tradition in the region is enlightening for different local household activities and economic ones.

In the territorial profile, in the Center Development Region there is a lower average number of employees per economic unit than the average per country, as well as average incomes. But the quota of profitable enterprises in the Center Development Region is above the average per republic.

In the Center Region there is a slight decrease (after a relative increase) of the number of places from 9399 places in 2008 year to 8591 places in 2018 year. The most dramatic decreased in 2018 year (about 15.5%), especially from the account summer accommodation units. However, we must note the precarious discipline of reporting (statistical and of other order) of summer accommodation units.

In the districts of Orhei, Dubăsari, Criuleni and Ungheni the accommodation capacities exceed 1000 places, but which lately have a tendency to decrease (2018). In the other districts the accommodation capacities are in a relative stagnation (Regional Development Agency Centre, 2017, p. 20).

The accommodation units serve an important number (94,381 persons) of foreign visitors who cross the border of the country (about 2.8 million visitors). However, the percentage that stay in the hotels and other establishments is approx. 3.37%. This is explained by the large number of one-day visitors (small border traffic), transit passengers, and accommodations in the gray sector.

The reduced diversification of tourism offers in the region, the territorial imbalances in the administration and promotion of the regional tourism offer make the Center Development Region remain still a destination appreciated by a limited number of foreign tourists. In this regard, there are large discrepancies in the accessibility and quality of accommodation units, especially those for mass tourism; at the same time, the short tourist stay results in low performances in domestic tourism, trips and museums. The cultural patrimony is degraded and, in general, few visitors know the region through excursions. This is also due to the lack of actions for the tourist visibility of the region inside and outside, the lack of financial resources to promote the field (such as: exhibitions, promotional materials, financial support of projects in the field etc.).

The tourist attractions represents the main image trainer and motivator of the tourist trips in the RD Center. The natural, cultural-historical, ethnographic and other patrimony of each local community in the region is a decisive potential for the development of the tourism sector. Thus, preserving this treasure, but first of all, its intelligent capitalization is a necessity, but also a norm for a hospitable society. Currently, most of the regional tourist attractions are in a precarious state, being unknown, unethetically, inaccessible and undeveloped in order to visit them. And the state of the attractions has an almost decisive impact on the general image of the RD Center.

The increased migration of the qualified staff in tourism and the shortage of the skilled labor forces in the HoReCa sector aggravate the situation of the hospitality sector in the DRC.

Similarly, the infrastructure connected to the major highways is not fully equipped with rest stops arranged for tourist needs, the deplorable and uncertain state of the access roads to most tourist attractions and the poor visibility of most tourist attractions on the roads of the region (without the appropriate tourist markings) makes RD Center a quite unknown area.

3. Capitalizing and promoting the tourist patrimony of the Center Development Region

The tourism infrastructure forms the basis of the regional tourism product. Elements of specific infrastructure must be present in destinations rich in tourist attractions, in order to enhance them and to allow the visitor to explore them safely and comfortably. The advanced state of degradation, fragmentation and territorial dispersion, imbalances in the tourist infrastructure quality - bring a great damage in the distribution of tourist flows in the RD Center. Thus, the tourist, due to the lack of supply of the destination, because of the doubtful quality of the services or the uncertainty of the trip, is often demotivated to travel through the RD Center (rather than for short periods) and prefers to stay in the capital.

That's why there are needed sustained measures for the touristic arrangement of the access corridors in the RD Center and to the representative destinations, including by marking some national and regional routes connected to those from the neighboring regions. These will take into account the existing network of road connections, railways and navigable rivers, as well as the potential routes for alternative transport (velo, naval, sports, cable etc.), which need to be arranged and interconnected to increase the mobility of tourists through RD Center.

The precarious situation in the field of accommodations in the destinations visited by tourists, the territorial and seasonal discrepancies, the doubtful quality of the hosting services, make the region less hospitable. Thus, there should be given encouraging actions as to restore and increase the accommodation capacities in the tourist destinations, especially for the children's camps and the accommodation units accessible to the mass tourist, as well as their classification according to the national requirements.

Recommended actions (*Decision of the Government Strategy "Tourism 2020"*. Official Gazette of the Republic of Moldova no. 127-133 of 23.05.2014):

- Installation of tourist markings, road signs, information panels around the attractions and along the tourist routes;
- Arrangement of stopping places on national and regional roads;
- Development of various transport logistics (car, railway, naval, velo, cable, etc.) interconnected to ensure the increased mobility of the visitors to the RD Center.

The restoration and modernization of the material tourism base in the locations developed even before the 90's of the century XX, as well as the development of new accommodation capacities around the tourist attractions - must be the main actions of this measure. This refers in particular to the accommodation structures accessible territorially and financially to a large number of visitors (eg. children's camps, rest bases, holiday villages, camping, caravan parks), including for the extension of existing ones to be able to work in the off-season or for new categories of tourists (eg: family, weekend, vacationers etc.).

The contemporary tourist is cautious about what and where to buy, prefers a wide range of accessible services and goods, and in new destinations he focuses on safety and

comfort. The complex service of the tourist to the destination in RD Center is difficult to achieve solitary by a single actor on the grounds of lack of investment in facilities, lack of capacities to serve a disproportionate number of clients in time, limiting the choice for the potential consumer, etc. In the RD Center destinations, this can be achieved if the entrepreneurs are associated at the level of a tourist destination or within known networks.

Tourist services are offered from person to person, and hospitality is provided by the receiving host. This is why the role of the human factor in tourism is most often decisive in the tourist offer of any destination, and the companions of tourist groups from elsewhere compensate to a small extent the lack of qualified staff at the destination. In such areas as accommodation, quality food service, guidance, tourist transport, the specific leisure is practically impossible to activate without "direct contact" personnel with the tourist. At the same time, contemporary tourism submits specific requirements for the knowledge of the people responsible for managing the flows of visitors or managing the tourist attractions in the visitor circuits (as well as for the LPAs representing the host destinations in national or international trips). The training and development of the human resources capacities in the tourism region must be a permanent concern, so that it can meet the increasing expectations of the country's guests, but also be able to create new competitive tourism products, exploiting effectively all the other resources of the RD Center. The Regional Sectorial program in the field of tourism is designed for the implementation period 2017-2025. Thus, the forecasted sources of financing are the National Fund for Regional Development, the National Ecological Fund, external and internal donors attracted within the projects and initiatives of the actors involved in the development of tourism in the RD Center.

4. Conclusions

Center Development Region has a number of competitive advantages that encourage tourism activity such as: favorable geographical location in the center of the country, at the proximity to Chisinau (which is the largest domestic tourist market), the high mobility of the population of the region encouraged by the presence of 7 touristic areas consacrated with a great diversity of valuable historical-cultural monuments of national value, old monasteries situated relatively compact, natural reservations and protected areas, many aquatic and forest resources for recreation that facilitate entrepreneurship in the hospitality field, functional museums distributed relatively uniform, wine traditions with well-known brands, rich and diverse craft traditions, as well as favorable climate conditions for the spa tourism, which ensures a good diversity of tourist offers and circuits, a growing accommodation sector for tourists especially from the neighboring countries and the EU or developed states. Besides this, the population is increasing the consumption potential of tourism and travel services.

This is why the interested actors propose to develop attractive and competitive tourist destinations in the Center Region in order to enhance the life quality of local communities, including by following specific objectives: capitalizing and promoting the tourist patrimony from the DRC; development and arrangement of tourist infrastructure; facilitating the association in order to develop tourist destinations, the development of touristic products, improvement of marketing destinations and tourist visibility systems; developing human resources skills for the tourism industry.

These must be achieved through the insistent promotion and implementation of a set of actions and projects that can ensure the balanced territorial development of the sector for the benefit of the host-communities and guests in the RD Center.

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SMART SPECIALIZATION AS AN ESSENTIAL STRATEGY FOR ENTREPRENEURIAL DEVELOPMENT IN A CONTEXT OF AN ECONOMIC DOWNTURN

Ph.D. Diana Elena TOMA (NASTASIA)

"Valahia" University of Târgoviște, Romania

E-mail: nastasiadiana@gmail.com

Ph.D. Silviu Constantin NASTASIA

"Valahia" University of Târgoviște, Romania

E-mail: sc.nastasia@gmail.com

Abstract: A key component of efforts to support the economic environment in order to identify solutions to counteract the effects of a potential economic recession is the intelligent specialization, an innovative strategy for economic transformation at regional and local level. The prospect of facing an economic downturn highlights a clear need to support entrepreneurial initiatives, namely a bold approach to increase the costs associated with investments in innovation and research as these are the basic elements that can stimulate a return to growth. In the process of entrepreneurial discovery start-up companies are obviously in the best position to identify new opportunities, respectively in developing solutions, by combining strengths, taking risks, looking for new ideas along the value chain, needed to identify and implement innovative solutions and thus to generate jobs and growth. This paper aims to study the role of smart specialization in identifying solutions that can be used to support the entrepreneurial initiative as a central role for the economic recovery. The present paper is of current interest as the chances of a worldwide economic crisis to occur are considerable and a high level of entrepreneurial development through intelligent specialization can lead to the reduction of its effects.

Keywords: Entrepreneurship, smart specialization, innovation, creativity, economy.

JEL Classification: G32, O10.

1. Introduction

In a competitive environment the key to face the market conditions is to focus on finding a differentiated competitive position. Other said, to identify those niches of activity where not only situation is better, but is better compared to competitors. As a result of the increasing technological changes, these findings must be developed in time in a continuous seek for obtaining a competitive advantage.

Generating new solutions to face market needs requires innovation, which may be obtained by combining experiences, ideas or best practices in the field. At the same time, in order to have a continuous process of economic renewal, is required to systematize the innovating approach at a national or regional level for a certain type of activity, while, at the core of this process should be found the entrepreneurial initiative that has the power to dynamize the economic growth by applying a specialized diversification model.

This mode, popularized as Smart Specialization has known an increasing relevance in the European Regional Policy, to the point of becoming an ex-ante condition for the Structural Funds. Though Smart Specialization may offer many opportunities, the fact that is not very well known throughout entrepreneurs, some risks may have to be considered in applying it.

Thus, one deficiency of the model is that, despite the lengthy theoretical literature, there are some shortcoming in terms of guidelines to carry out a process of this kind. Moreover, when referring to entrepreneurial discovery concept, by applying Smart Specialization model, a background with solid examples of the approach is missing.

However, for income generation and job creation in a framework of sustainable competitiveness in the medium term, this type of discovery is a key element for the realization of specialized diversification processes.

The objective of the paper is to clarify the concept of entrepreneurial discovery and establish its placement in the context of economic development. At the same time, another goal is to obtain a knowledge regarding the role of entrepreneurial discovery in Smart Specialization strategies that enables decision makers to identify and support initiatives in the processes of this nature that can support sustainable economic growth.

A research of related literature was pursued in order to facilitate the theoretical and methodological elements that address their application in the Romanian context, with an assessment of the implementation possibilities and the necessary tools.

We will analyze from a theoretical point of view the phenomenon of entrepreneurial discovery by establishing some defining and characteristic elements, discussing at the same time the reflection on the implications of entrepreneurial discovery when it comes to economic growth and business diversification in case of economic instability, taking as an example the Romanian agricultural sector.

2. Smart specialization

Smart Specialization is a part of Europe 2020 Strategy and targets to be an in-depth innovative strategy that will allow Europe to better provide smart and applied solution for economic development. Smart specialization is a decision developed and implemented in a dynamic process of entrepreneurial discovery that involves key stakeholders in a form of collaborative leadership (European Commission, 2020).

According to Europe programmatic papers, Smart Specialization represents a strategic approach to economic development through targeted support to research and innovation, which implies concentrating resources on key priorities in a certain territory based on the region's economic potential rather than spreading efforts and investments too thinly. Smart Specialization involves a process of developing a vision, identifying competitive advantages through an entrepreneurial process of discovery, setting strategic priorities and making use of smart policies to maximize the knowledge-based development potential of any region, strong or weak, high-tech or low-tech (European Commission, 2020).

The concept proposed by European Union is not a new one, being in fact a reconceptualization of the existing methodology for Structural Funds programming, based on a more than 15 years' experience in providing novelty process applicable in regions characterized by defining common elements.

The concept is already put in place in, as stated by the European Commission in the National/ Regional Innovation Strategies for Smart Specialization (European Commission, 2020). Thus, Smart Specialization is about identifying the unique characteristics of each country and region, highlighting each region's competitive advantages, and rallying regional stakeholders and resources around an excellence-driven vision of their future. It also means strengthening regional innovation systems, maximizing knowledge flows and spreading the benefits of innovation throughout the entire regional economy.

It is about reconciling two logics of political action:

- setting vertical priorities regarding fields, technologies and activities, rather than generic priorities such as increasing cooperation between research and industry or improving human capital;
- involving dynamism, competitive entries and entrepreneurial knowledge combining science, technology, engineering with knowledge of market developments, business needs and emerging opportunities.

Through Smart Specialization, European Commission meant to focus its attention on providing methodologies, expertise and advice guidance to national and regional policy makers, as well as to contribute to academic debates around the concept with application in

fields related to SMEs, in general, ICT and digital growth, advanced manufacturing and rural innovation.

Whatsoever, the Smart Specialization concept recently gained more significance as it represented a ground for European regional policy in the framework of the “Europe 2020” strategy and its “Innovation Union” initiative (European Commission, 2020). The concept was actually promoted after a strategic reflection carried out by a mission of a group study, between 2006 and 2009, of which prior scope was to study the EU gap compared to US in terms of R&D expenses associated to investments in economic development.

In fact, the study underlined that, beside the labor market differences, the economic structure in Europe represents a shortcoming when it comes to translating R&D to increase productivity and to properly adapt to SMEs characteristics (Pontikakis and Van Bavel, 2009).

Thus, as an answer to the issues raised, the study offers the concept of Smart Specialization, starting from the idea that, in order to obtain a competitive advantage, at regional or national level some sound technological or knowledge fields must be identified through entrepreneurial discovery process (EDP).

Given that, a Smart Specialization strategy should focus on seeking specialized diversification by exploiting the territorial variety and, in eventuality that these possibilities are identified they should be implemented through the process of entrepreneurial discovery.

3. Entrepreneurial discovery

Largely inspired by Dominique Foray's work, this principle is based on two concepts. The first, known as “Entrepreneurial Discovery”, is intended to stimulate, release and structure a specialization strategy based on a limited number of themes. The second relates to the choices to be made in terms of “grain size” during the selection process of the themes on which to focus the funds. It is not a matter of choosing a full-fledged sector or a particular project, even if it is a large one, but of being at an intermediate level, that of the thematic allowing outbreak of new activities.

Despite all the achievements it could have taken advantage of in terms of in-depth knowledge of business demands, the regional partnership has also taken note of the importance of two factors, specific to the Smart Specialization strategy, capable of questioning some of the usual methods of applying support mechanisms to the regional innovation ecosystem (fig. 1):

- The exclusive nature of the areas of specialization, leading to a concentration of investments, that call for the creation of synergies where regional, national and European instruments and supports must meet and complement each other;
- The growing importance of stakeholders, especially those representing the private sector, in the governance of the system.



Figure no. 1. The cyclical of the entrepreneurial discovery process

Source: elaborated by the authors

Entrepreneurial discovery requires:

- to involve in the selection of the priorities of entrepreneurs with a vision on the areas in which it is important to invest to overcome future economic changes (agricultural challenges for example such as the transition to achieving smart growth by supporting forms of cooperation between research institutions and farmers and other actors in the rural economy);
- to base these choices on the basis of the most objective criteria and data possible;
- to change the priorities over time so the entrepreneurial discovery adapts to a dynamic environment.

Discovery refers to the process of forming an idea to achieve a business concept, while initiative refers to the implementation of the concept in the market (Davidsson, 2008). Even if Entrepreneurial Discovery is linked to a micro vision, the approach of the intelligent specialization model seeks to overcome it in order to reach a macro level. Other said, it is not a question of concentrating on individual processes or initiatives, but on a wide range of them which makes it possible to obtain systematic results in terms of regional development (fig. 2).

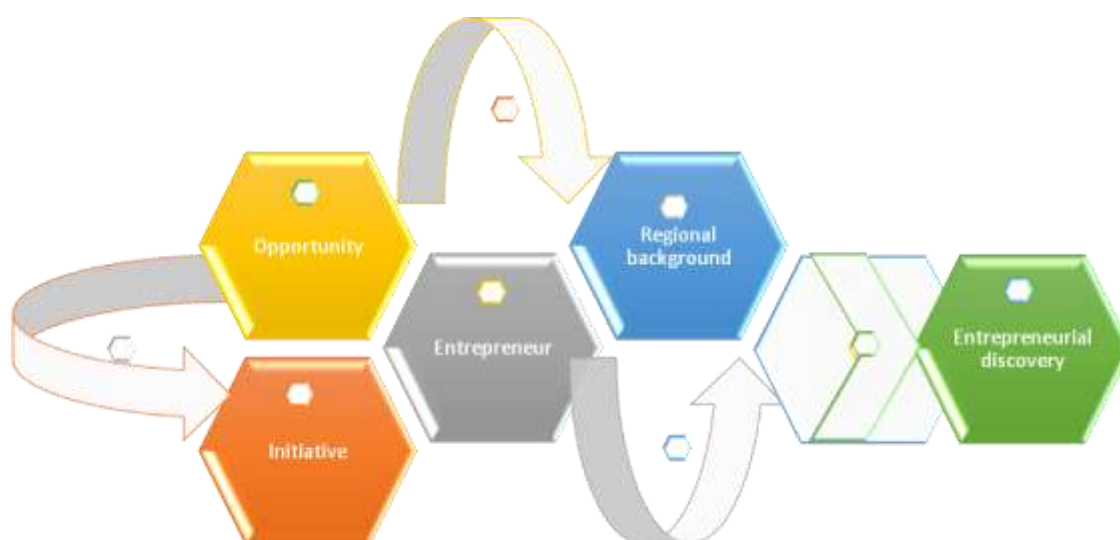


Figure no. 2. EDP. From initiative to discovery

Source: elaborated by the authors

A process to stimulate and identify entrepreneurial initiatives at global innovation system can be built around a collaboration platform for innovation in the world, on a regional scale, which should allow:

- better circulation and improved access to information useful for innovation with a maximum of "regional entrepreneurs", in order to continuously support and stimulate their motivation and capacities to undertake or develop their activities;
- more precise identification by continuous raising of problems or initiatives with high potential that may arise during the activities that will be carried out by "regional entrepreneurs" throughout the territory;
- to broaden the spectrum of actors involved in the process of identifying high-potential initiatives or raising stakes emanating from the realities of the socio-productive territory at the level of regional radars, without resorting to the methods traditionally used so far.

4. Economic Business Cycle

Given the long period of growth experienced by Western economies until the mid-1970s, the concept of economic cycle has become relevant in recent years. The long period of expansion experienced by the American economy since 1983 raises questions about the possibility of a recession, in other words about whether or not a cyclical crisis is likely.

In this perspective, economists are again interested in the problem of "business cycles", the starting point of the analysis in terms of "economic cycles" being relatively simple: the evolution of economic activity is not regular, but is marked by the existence of cyclical fluctuations. more or less periodic.

To use the empirical definition proposed in 1946 by Burns and Wesley, "business cycles" correspond to the fluctuations of general economic activity characterized by a practically synchronous existence of expansion phase for most activities, followed - also synchronously - of a reversal phase, then of the recession phase and, finally, of the recovery phase.

In a simple way, around a trend we can characterize a cycle by the existence of "peaks" - above the trend - and "gutter" - the lowest trend - with a recurrent nature of these

peaks and gutters. Each peak marks the end of the expansion period of a cycle and each through the end of the recession and contraction phase (fig. 3).

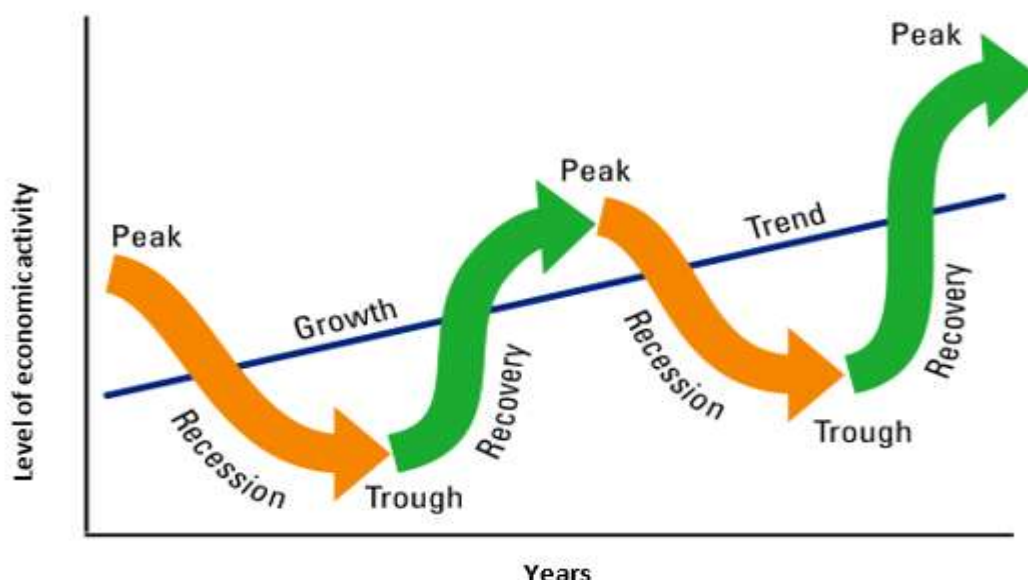


Figure no. 3. The economic cycle

Source: elaborated by the authors

A business cycle consists of a peak followed by contraction or recession and a sewerage followed by recovery and expansion, as shown above. Shrinkage or recession is defined as a period of significant decline in total output, income, employment and trade.

A depression is a recession that is major in scale and duration. This is the minimum level that the aggregate economic activity reaches. Recovery is a period of significant growth in total production, income, employment and trade. Boom is a period of extended economic expansion in which total economic activity is high and growing, cycle exemplified below for US economy (fig. 4).

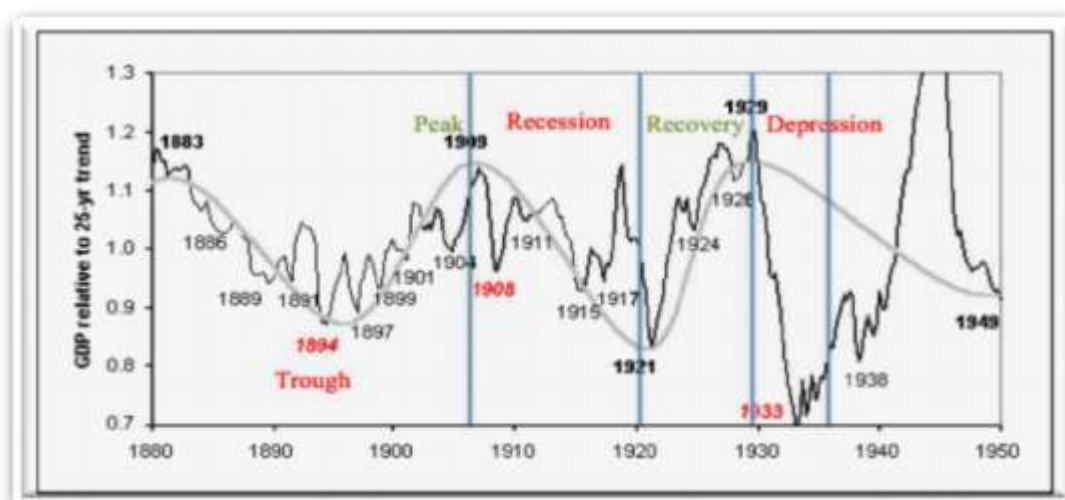


Figure no. 4: Business Cycles in the US (1880-1950)

Source: NBER

Recessions are characterized by negative real GDP growth and increase in unemployment that can be induced by various factors. Historically, recessions have been induced by factors like the bursting of housing bubble (2008-2009), the bursting of dot-

com bubble (2001), the oil price shock (1973), etc. Recession is not a rare economic phenomenon. Excluding the great recession, the US has had seven recessions since 1960 (above represented in fig. 4) resulting in a cumulative loss of 3.16% in output, while only the recent recession had a huge impact in the US, resulting in negative 2.6% GDP growth rate.

So, how can an economic recession be prevented or limited as proportion. A response may come from innovation, as an important part of entrepreneurship process, base for new businesses emerge. Drucker (1985) described creative imitation as another aspect of entrepreneurship, which probably describes a lot of entrepreneurs coming from places like developing and underdeveloped countries.

Filion (2011) proposes that any comprehensive definition of entrepreneurship should encompass six main components: 1) innovation, 2) opportunity recognition, 3) risk management, 4) action, 5) use of resources and 6) added value. He goes on to provide some sample definitions, one of which defines entrepreneur as: *“An intuitive, resourceful, tenacious actor who is able to recognize and develop risky opportunities with potential for innovation, and who adds value to what already exists by setting up activities that involve a scarce use of resources.”*

During the economic crises period, a lot of businesses have emerged in developed countries, like US, period in which well-known companies were founded: General Electric (1890), IBM (1896), General Motors (1908), Disney (1923), Burger King (1953) and Microsoft (1975) (fig. 5).

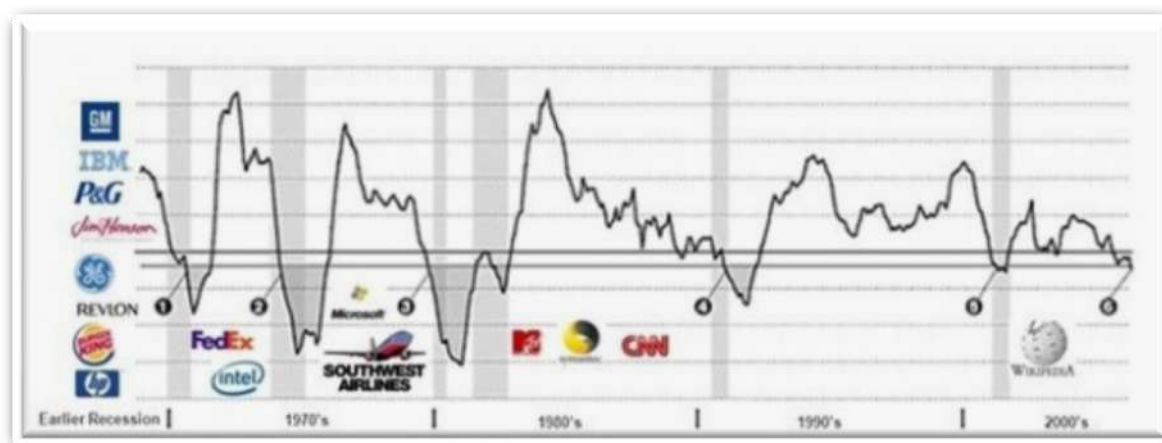


Figure no. 5. Big companies founded during recessions

Source: NBER

Different aspects of recession act in opposing directions with regards to entrepreneurship leaving the net effect of those forces decide the fate of entrepreneurship. As Farlie (2011) argues, *“On the one hand, recessions decrease potential business income and wealth, but on the other hand they restrict opportunities in the wage/ salary sector leaving the net effect on entrepreneurship ambiguous.”* There is also the interesting dynamic between the reduced supply of finance and increased supply of labor (through increased unemployment), with these forces acting in opposing directions.

The issue of financial constraints during recession may demotivate entrepreneurs to start a business. On the other hand, the rising unemployment can give rise to necessity entrepreneurs or cheap labors, opportunity that entrepreneurs can exploit, thus increasing the odds of entrepreneurship.

5. EDP as a solution for a potential economic downturn

According to Business Review analysis (January 2019) Romania's economy is facing uncertain at the end of a two-decade growth cycle, while it managed a fast-economic growth and closing the gap with Western Europe.

Since 2000, the first year of the current cycle, Romania has experienced 17 years of GDP growth and only two years of economic decline (2009-2010), the real convergence being among the most impressive on the European continent. Thus, in 2000, Romania's GDP was EUR 40 billion (less than EUR 2,000 per capita), while in 2017 the values hit EUR 188 billion, or EUR 9,600 per capita, and exceeded EUR 200 billion or EUR 10,000 per capita in 2019 (fig. 6).

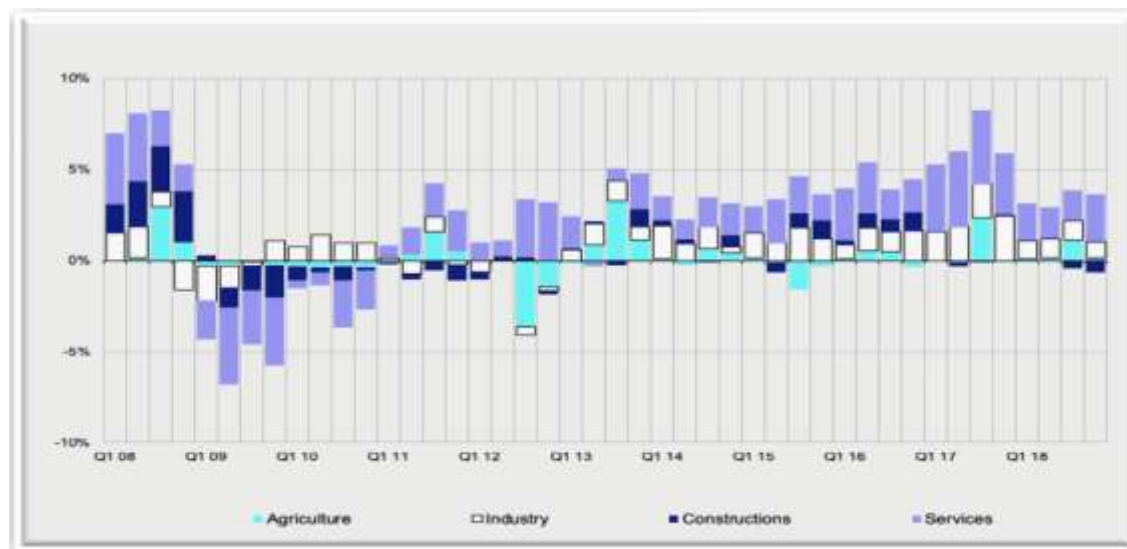


Figure no. 6: Romania drivers of GDP y/y growth

Source: INSSE

In terms of purchasing parity standards, used to better compare nations taking into account price differences, Romania entered the EU with 39% of the EU average (in 2006) while the indicator reached 63% in 2017, according to Eurostat, ranking above Bulgaria (49%) and Croatia (61%), and approaches Latvia and Greece (67% each), Hungary (68%) and Poland (70%).

Experts point out that after a decade of EU membership, the Romanian economy has grown rapidly despite the financial crisis and has even managed to become the largest in the region. Whatsoever, in the very same period impressive number Romanians has left the country in search of a better life in western countries.

According to Global Competitiveness Index 4.0 (2019), a report that measures national competitiveness, defined as the set of institutions, policies and factors that determine the level of productivity, covering 141 economies, Romania ranks 51st place in top (fig. 7).

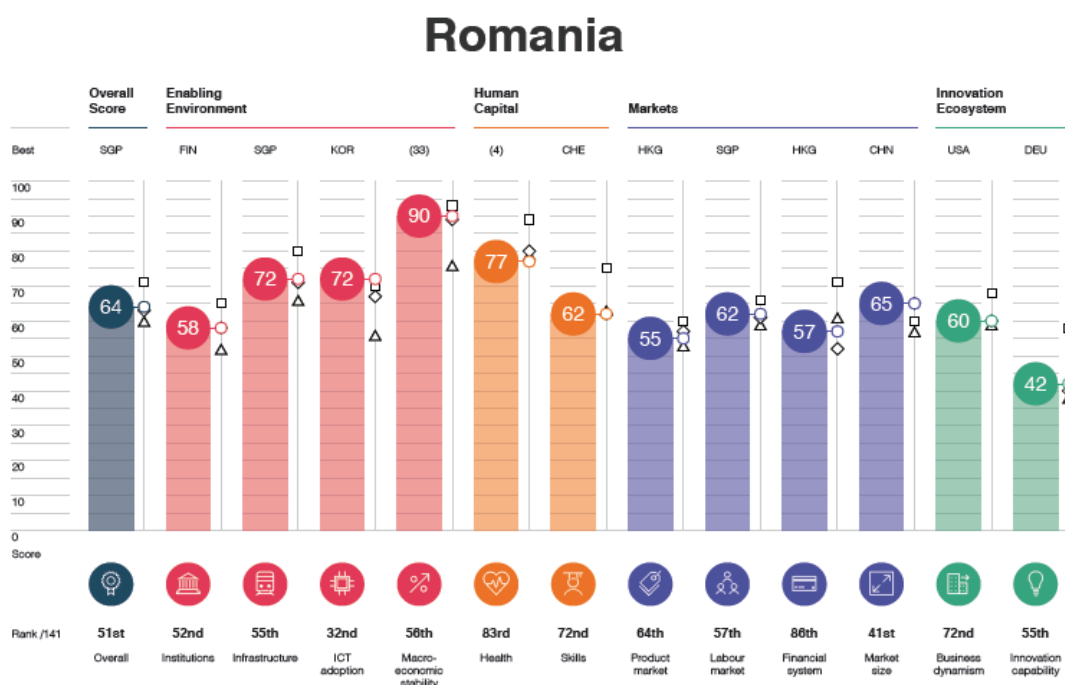


Figure no. 7. Global Competitiveness

Source: World Economic Forum, 2019.

In recent years, the government has adopted a growth strategy driven by wages, stimulating household consumption and GDP growth rates, but this model has generated larger budget and current account deficits.

For 2020, many economists forecast a recession of the economy with these levels depending on the health of the European and global economy, a possible world crisis automatically affecting Romania. Thus, it must be underlined that the evolution of the Romanian economy is linked to the evolution of European economies, to what is happening in the global space, given the fact that Romania has an open economy.

The performance of economic entities founded during recession has been researched (Boeker, 1989; Gerosky, Mata & Portugal 2009), the studies suggesting that the founding conditions leave long lasting impressions on economic entities and hence determine their fate in terms of survival and performance to a large extent. The strategic choices that firms can make in course of their life can be limited by the conditions at the time of their market entry.

With Romania and Europe both facing global competition and potential economic slowdowns, there is a need to focus resources on job creation and sustainable growth. For rural areas, the necessary competitive advantage can be obtained by finding niche markets or by integrating new technologies into existing industry.

Three issues that are especially pronounced when working with Smart Specialization in a rural area are:

- First, find the right niche activity that promotes innovation and spinoffs. It is important to identify resources in rural areas from the perspective of current challenges and trends in society. The objective is to diversify the system by generating new options.
- The second challenge relates to finding the resources and conditions necessary to design effective policies. It is important to bring together the sectors and stakeholders concerned at the regional level, in order to jointly explore the

possibility of their contribution to everyone's growth activity by integrating and exploring the broader concept of innovation.

➤ The third major challenge is to effectively maintain the policy and the monitoring system in place. Capacity must be built to meet the challenges and meet the demands of the new generation.

The European Regional Development Fund has supported the development of a decaying agricultural area into a region encouraging development and creativity. Many start-ups have been founded in the area dedicated to young farmers who wish to start a business in rural area, both in agricultural and non-agricultural activities. Young entrepreneurs receive logistical support, as well as services such as consultancy and accounting.

The Smart Specialization strategy highlights the role of incubators and other business support structures in enhancing entrepreneurship and the creation of innovative companies in the agricultural sector, where the region retains a competitive advantage, with implementation of smart precision agriculture.

For example, in the context of the need for sustainable development of the fruit sector in Romania, it is necessary to start from the current realities of the field, by radiographing the determining elements of this segment of activity.

According to 2019 report of Agricultural Payments and Intervention Agency the fruit growing areas in Romania cover an area of 102,000 hectares (for which payments request were submitted), of which more than 84% are located in rural areas. The population of approximately 9 million inhabitants of these regions is experiencing a demographic decline, which is continuously aging (fig. 8).

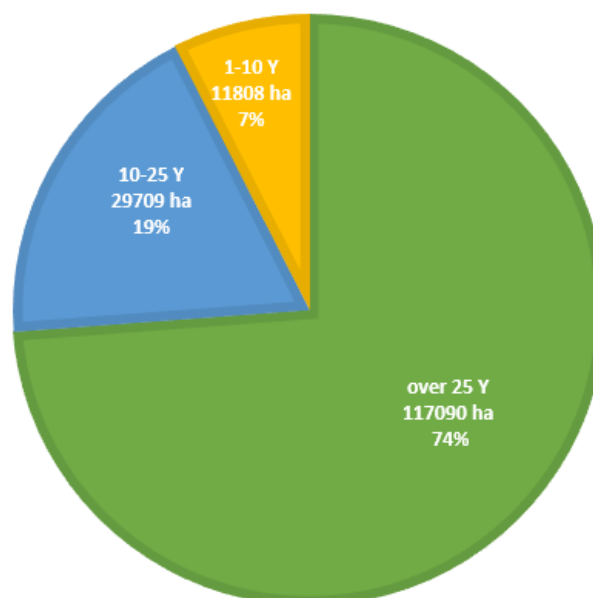


Figure no. 8. Areas occupied by fruit plantations by age groups (2013)

Source: MADR, 2020. *RNDR*. [online] Available at: <<http://madr.ro/docs/dezvoltare-rurala/rndr/buletine-tematice>> [Accessed 3 April 2020].

The territory covered by the thematic fruit sector sub-program covers around 1,300 localities with a total fruit area of about 158,000 hectares, representing approximately 1.2% of the agricultural area used. During the period 1990-2013, the area occupied by fruit

plantations decreased by approximately 50% (from 313.4 thousand hectares in 1990 to 158.6 thousand hectares in 2013).

Most fruit plantations are old, over 25 years old, with low production potential, declining or abandoned. Only 7% of the total area consists of young plantations. Fruit plantations occupy 67,110 hectares and represent 42% of the total area. According to the cropping system, a very high percentage (68%) belongs to conventional plantations, 30% to intensive plantations and only 2% to super-intensive plantations. As for the area of organic fruit farms, it went from 211 hectares in 2006 to 6,083 hectares in 2012. Of this number, around 86% are in conversion and only 14% certified.

Excessive fragmentation of land, particularly in the hilly region (favorable to fruit crops) is a determining factor in the decline of the fruit sector. In 2010, the average area of a fruit farm was 0.38 hectare, well below the minimum area required for a fruit farm viable (about 5.0 ha), according to data from the General Agricultural Census.

The low volume of investments in the fruit sector has several causes, among which we mention: the high costs of setting up new plantations, the long period until the fruiting of trees, the low income of households in rural areas, the low number of jobs available in rural areas, reduced access to financial resources and high costs of credit products.

The weak association and cooperation for the purposes of production, but especially of the joint capitalization of fruit production is another important factor which has negatively influenced the capitalization of production and, implicitly, the incomes of fruit growers.

Supported by excellent agricultural sectors and an efficient food sector, specialized agriculture covers two inseparable areas to meet the challenge of competitiveness by reconciling ecological and economic dimensions, while maintaining intrinsic qualities of products:

- development of new technologies available for compliance with agricultural practices and food processing operations (drones, remote sensing, biosensors);
- control of production procedures (limiting inputs, biological control, energy reduction, recovery of co-products, industrial performance, conservation, clean labeling).

In these circumstances, a precision agriculture offers many opportunities to improve agricultural productivity by optimizing crops and production quality, based on cross-fertilization with aeronautics, robotics and ICT players. It also participates in the development of organic farming and in the search for an optimized use of Agri-Resources to cover the entire chain of agri-food values for eco-efficiency. The latter, reinforced by the expectations of the food industry and "consumers", refers to the development of quality food at a competitive price, by reducing the environmental impact and resource use at each stage of the chain.

The regional potential issue is considerable, as the fruit sector accounts for over 100.000 square km to which can be added the significant workforce in the field, as well as indirect jobs (suppliers, producers, equipment, logistics). The vast fruit segment in Romania stands high in total agricultural production, characterized by a great diversity of production, due mainly to the contrast of agricultural conditions - pedoclimatic conditions between its departments and the sectors of excellence already involved in ambitious projects that fall within the theme.

Thus, given the potential segment of activity, consistent entrepreneurship initiatives may be successful, even in a period of an economic downturn, by organizing the activity around new applicable technologies for crop observation and management (drones, remote sensing, proxy detection) with a very specific field of application and having the necessary critical size.

6. Conclusions

Some regions in Romania have a high level of innovation capacity and are among the regions with high prospects in Europe. Other regions are characterized by economic deficiencies that are less inclined to innovate. Therefore, the methods of mastering and translating the concept of Smart Specialization are in a way variable.

It is necessary for each region to clarify and guide its strengths and positioning in terms of innovation and to catalyze a process of entrepreneurial discovery that mobilizes the regional innovative ecosystem around a strategy developed, shared and implemented.

These strategies provide a new strategic framework to maximize the leverage effect of support for innovation in regions, to generate more innovation, to support more innovative products and solutions on the market, to maximize and disseminate their effects in a crucial moment in strengthening the competences of the regions in terms of economic development even in an economic downturn period.

Taking into account and implementing the principle of Entrepreneurial Discovery, it is necessary to strengthen the structuring of regional governance of innovation, identify areas of Smart Specialization and based on the assets and driving forces of the region and integrate the principle of openness.

Defining the strategy is only the first step in the Smart Specialization process and will be continued with action plans and implemented, monitored, evaluated and subject to adjustments, depending on changes in the economic structure and the regional innovation ecosystem in particular. It is necessary for the areas of Smart Specialization to evolve in order to guarantee the achievement of the objectives set by the regions.

Establishing an effective monitoring and evaluation system is one of the important steps in the development of strategies, as this system will monitor both the progress of the territories in terms of the objectives they have set, but also to sustain the territories to change strategy over time.

The success of these strategies will depend in particular on the ability of the regions to mobilize and focus resources on action plans in support of their strategic objectives and activities.

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