

University of Bucharest

The word "Manager" is written in a bold, cursive script. A thick, black pen stroke is positioned horizontally across the top of the letters, as if it has just finished writing the word.

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## *Management dilemmas in the XXI century.*

*Personal actions don't always lead to the goals that we wanted to reach. The restrictions of a budget are lowering the possibilities of achieving organisational performances. The most important quality of a manager is to orientate through a complex system of restrictions, finding the liberty to be open-minded. The performance is mostly influenced by the skills of the employees. This is why any manager should be very attentive to any factors that influence the evolution of the employees and their personal needs. Ethical norms and principles influence the actions and decisions of the managers. Relationships and moral issues which appear within organizations between managers and all categories of stakeholders can affect the economical performances and social performances of the company. The dilemmas of the manager are highlighted by the way he solves the problems consistent with the responsibilities to the shareholders, employees, customers and community. Artificial intelligence and the risks that people take in using it are another dilemma of current management. In a world where resources are dwindling, conflicts may arise over their division. Here we can talk about a dilemma of negotiation capacity. Cultural differences and the tendency of global decision makers to standardize everything is another dilemma.*

*And last but not least, the dilemma is an argument which is consisting in presenting two inevitable alternatives, having the same result anyway.*

*Prof. Ph.D. Paul Marinescu*



# What influences the entrepreneurial intention in Romania?

## Identification of the main determinants using classification trees

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**Abstract:** The present study focused on investigating entrepreneurial intention in Romania using a technique specific to the field of data mining, respectively classification trees. The main idea of the study is to identify the probabilities of an individual being classified as a potential entrepreneur, having as a starting point a series of socio-demographic characteristics, but also perceptions, beliefs and opinions on issues related to training, experience and skills. The analysis takes into account some perceptions of the institutional support that authorities can provide to the entrepreneurial ecosystem. After analyzing 1522 responses to a questionnaire, it was concluded on the one hand that most respondents are not attracted to the idea of launching their own businesses, while potential entrepreneurs are characterized by a high confidence in their skills, in turn know individuals who have become entrepreneurs, these evidence being in line with other studies in the field, these aspects characterizing other groups of individuals and other societies. The

*low importance of the variables that describe age, gender and fear of failure in building the model implies that in Romania these characteristics do not significantly influence the decision of individuals to become entrepreneurs.*

**Keywords:** entrepreneurial intention, classification trees, GEM database, self-confidence,

**JEL Classification:** C38, C82, L26, M13

## Introduction

Identified and practiced more and more often in recent years, with technological evolution, increased flexibility, but also benefiting from significant improvements in transport or communication infrastructure, entrepreneurship has become an activity of great interest to many individuals. Practiced either out of passion and desire to materialize innovative ideas or simply as an alternative to the professions and occupations of many individuals, it has become a real contributor to economic growth and increased social welfare. But what precedes innovation and effective involvement in entrepreneurship is actually the intention, the individual interest in engaging in such activities. Entrepreneurs are the ones who innovate (Marinescu, et al., 2017; Toma, Marinescu and Gradinaru, 2017; Toma, Marinescu and Dogaru, 2017) and create jobs, but what are the factors that push individuals to become entrepreneurs?

The objective of this study is to identify the main causes that stimulate Romanians to choose to launch their own businesses. In this sense, this paper will analyze the influence of entrepreneurial attitudes and skills in Romania. It will be investigated whether those who have such skills and perceptions can necessarily become entrepreneurs, using the method of classification trees. It will also be aimed at making a comparison of the situation in Romania with other records and evidences provided by the scientific literature. This paper is structured as follows. The first part will present a brief review of the literature, and then, in the second part, the working methodology and the variables and data involved in the analysis will be presented. The study will continue with the highlighting of the results and the presentation of the main conclusions.

## Literature review

The idea of entrepreneurial intent can describe the transposition of attitudes, beliefs and judgments of an individual focused on launching and developing a new organization (Bird, 1989). Kailer (2019) describes entrepreneurial intent as a commitment and behavior undertaken in the direction of the physical development of a company, business or startup.

Ajzen (1991) in The Theory of Planned Behavior points out that the intention to act in a certain directive is determined by a series of aspects related to the perceived control, attitudes and different norms and rules. According to this, the individual perceptions, the more they are focused towards a certain goal, the more likely it is for the individual to achieve the goal.

In recent years, the concepts of entrepreneurship and entrepreneur have become increasingly popular. More and more individuals decide every year to start their own companies, to



set up their own businesses. The development of entrepreneurship has attracted the attention of researchers, the subject becoming one of great interest in the literature, most studies trying to identify the main factors that push individuals to get involved in entrepreneurial activities. These factors are analyzed in detail, being divided into possible socio-demographic determinants, in determinants that synthesize the educational and professional training of individuals engaged in such activities, but also in factors related to attitudes, beliefs and perceptions.

Most research focuses on the self-confidence of individuals and their beliefs that they are endowed with the knowledge and experience necessary to run businesses. This factor has been identified as significant in explaining entrepreneurial intent. Wei et. al (2020) also emphasizes that confidence in these skills stimulates and contributes to the manifestation of a behavior oriented towards creation and innovation.

Jiménez et al. (2015) focuses on the link between the educational training of individuals and the development of entrepreneurial activities. Their study exposes a significant contribution of the graduated educational level on what they call "formal entrepreneurship". The idea is that graduates of the tertiary educational cycle have much better polished cognitive skills compared to those who do not pursue higher education. Acquiring them is essential when it comes to identifying and exploiting business opportunities. At the same time, they conclude that training in academia has a negative influence on informal entrepreneurship, which involves operating companies in an unregulated environment.

Increased attention in numerous studies is given to identifying the importance and significance of an individual's gender when it comes to engaging in entrepreneurial activities. The conclusions in this field are vast, the evidence being that in certain situations the gender of the respondent can significantly contribute to his involvement in entrepreneurial activities. Davidson et. al (2010) found that the involvement of women in the entrepreneurial process is significantly lower than that of men. Brush et. al (2019) points out that the entrepreneurial environment is one that seems to strongly disadvantage women, entrepreneurial career being seen as a stereotype, the general perception being that entrepreneurship is also intended for men. Shinnar, et. al (2012) observe in this sense that men as opposed to women are characterized by more courage, independence, strength, and the desire to engage in activities that can be considered risky.

Mei, et. al (2020) undertook a study targeting a group of students from China, enrolled in seven university programs, the method of collecting their answers being that of applying questionnaires. The conclusions drawn by them are that entrepreneurial courses in universities show a significant influence on young people, their interest in these activities being much more pronounced, entrepreneurship education also contributing to increasing the self-efficacy of individuals.

A factor identified as significant in the manifestation of the preference for the entrepreneurial path is the problem and the difficulty of finding a job. This is revealed in the study of Fatoki (2010), which analyzed the responses of 701 students who stated that the fear of becoming unemployed after graduation gives them the prospect of becoming entrepreneurs.

Among the factors carefully studied by researchers is the fear of individuals facing potential failures. Camelo-Ordaz (2016) identifies an inverse link between the fear of failure of individuals

and the willingness to engage in entrepreneurial activities. The more an individual fears the experience of failure, the lower his probability of taking the risk of starting a business.

Nowadays, entrepreneurship represents an increasingly common sphere of activity, being viewed with great interest and being an element that contributes to the economic development of societies. Starting new businesses by entrepreneurs has the effect of creating new jobs for other individuals, ensuring greater labor mobility. On the other hand, the establishment of new companies contributes to the permanent change and adjustment of the markets, opens the horizons of innovation and increases the market competition.

The beneficial effects of entrepreneurial activities on economies are visible, but there is a need for permanent support and stimulation of the authorities given to the entrepreneurial environment (Sperber and Linder, 2019). Excessive regulations discourage entrepreneurs, thus increasing the costs of setting up and operating their own businesses. The bureaucracy as well as the complex, unclear and constantly changing legislation decreases the motivation and interest of entrepreneurs, the operation of the activity in such an environment being a turbulent one. Failure among companies is common, especially in the first years of activity, the data showing that on average, 50% of start-ups manage to remain on the market after the first five years of activity.

## Research methodology and data

### 2.1 Methodology

The analysis performed in this paper will be based on the use of the classification tree methodology. Classification trees represent structural mappings of binary decisions that lead to an interpretation about the class of an object (in the present study the objects are represented by the respondents to the questionnaire).

The application of this method leads to the construction of classification trees in the situation where the work variables are categorical and to decision trees in the case of analyzes that involves numerical variables. Previously mentioned, the purpose of this study is to identify the determining factors of expressing entrepreneurial intention in Romania, the variables used being categorical, which requires the application of classification trees.

The classification process involves the construction of a tree that in the root node will contain all the observations from the data set, its growth being recursive. For each node of the tree it will be analyzed and decided if the respective node can be a leaf node or if the observations contained in that node can be grouped using other characteristics. In this case, the construction of the tree will involve the grouping of respondents in different nodes, according to the answers recorded following the application of the questionnaire.

For each node  $X$  there will be the possibility of splitting it into  $LX$  (left node) and  $RX$  (right node). This splitting will be made according to the following criteria:

$$P(LX)r(LX) + P(RX)r(RX) < P(X)r(X) \quad [1]$$

$$P(X) = \sum_{i=1}^2 \pi_i n_{iX} / n_i \quad [2]$$

where

$P(X)$  – the probability associated to  $X$  node (the probability that an observation is part of the  $X$  node)

$r(X)$  – the risk associated with the  $X$  node (risk of misclassification)

$\pi_i$  – the probability associated to each class

$n_{iX}$  – the number of observations in the  $X$  node that is part of the  $i$  class

$n_i$  – the number of sample observations included in the  $i$  class

In order to identify the risk associated with a node, the following elements will be defined:

$L(i,j)$  – the matrix of the incorrect classification of the observations from the  $i$  class to  $j$  class

$t(X)$  – class associated to  $X$  class in case of being a terminal node

$$r(x) = \sum_{i=1}^2 p(i|X)L(i, t(X)) \quad [3]$$

The development of the entire classification process aims to reduce as much as possible the heterogeneity in each node of the tree. This heterogeneity is measured using the Gini index. It will be denoted by  $P(\omega_j)$  the proportion of observations in the  $j$  class. The Gini index is calculated for the  $X$  node using the following relationship:

$$I(X) = \sum_{i \neq j} P(\omega_i)P(\omega_j) \quad [4]$$

## 2.2 Data and collection sources

In order to assess the interest for entrepreneurship at the level of Romania, a series of variables considered relevant in relation to the literature review were selected.

The description of the ten indicators used in the analysis can be consulted in Table no. 1. The source of data collection is the database provided by Global Entrepreneurship Monitor, this organization being the main provider of statistics in the field of entrepreneurship. A number of 2002 responses were collected for Romania. The collected indicators analyze socio-demographic details, but also aspects related to the occupational and educational situation of the respondents, perceptions and beliefs both regarding their own abilities and business opportunities or the support given to the entrepreneurial environment by the authorities. The analysis is performed within this paper using the RStudio software. The last column in Table no. 1 represents the values calculated for Cronbach's alpha coefficient. It measures the internal consistency or reliability for the measurement scales used. We notice that the recorded values are in all cases above 0.8, which indicates a good consistency of data and increased reliability.

Table no 1. Description of the variables

No.	Variable	Description	Cronbach's Alpha
1	GEMHHINC	Categorical variable describing the household income level of the respondent: low income ("L33"), average income ("M33"), high income ("U33")	0.921
2	GEMWORK3	Categorical variable describing the individuals' occupational status: (1) Full-time or part-time employed; (2) Searching a job; (3) Student or retired	0.904
3	GEMEDUC	The education level of the respondent - a categorical variable with 5 levels: "1" - secondary school, "2" - up to 10 classes, "3" - high school, "4" - post-secondary school, "5" - higher studies.	0.899
4	suskill	The perception of individuals about possessing entrepreneurial skills - binary categorical variable	0.901
5	fearfail	The variable expresses the respondent's position on the following question "Do you consider that fear of failure is an obstacle to opening a business?"	0.887
6	age	Respondents' age	0.907
7	knowent	Categorical variable with 2 levels: "Yes" (if the respondent states that he has knowledge about someone that started a business in the last two years) and "No", otherwise.	
8	gender	Gender of the respondent	0.887
9	opport	Perception regarding the existence of business opportunities in the respondents' area. A categorical variable with two levels "Yes" and "No".	0.880
10	easystart	The respondent's perception of the ease a business can be started in that country	0.828

Source: GEM monitor and authors' own research

### 3. Results and discussion

This section aims to analyze the entrepreneurial intention in Romania starting from a set of indicators provided by the GEM organization. Therefore, considering the variables discussed in the previous section, we will analyze what are the factors that can convince Romanians to choose to launch their own business.

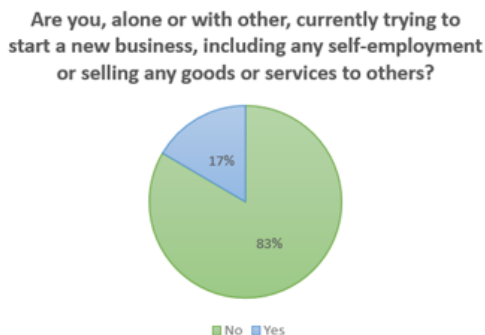
Figure no. 1. Number of new businesses launched annually between 2010 and 2018



Source: Authors' own research

The previous figure highlights the number of new businesses launched in Romania in the period 2010-2018. It can be seen according to the graph that since 2014 the number of newly established enterprises has increased considerably, from approximately 56.3 thousand in 2014 to 94.2 thousand in 2018. Therefore, these data confirm that in Romania the entrepreneurial interest and intention have developed significant in recent years. Next, the reasons that lead Romanians in the direction of entrepreneurship will be investigated.

Figure no. 2. Distribution of answers regarding entrepreneurial intention



Source: Authors' own research

In Romania, 2002 individuals were interviewed who expressed their opinion on the intention to set up their own company in the next period. The data set also included N / A type values, so after eliminating these values we will rely on 1522 answers. The situation of these answers can be consulted in Figure no. 2. As shown, most of the respondents do not see the possibility of entrepreneurship in the immediate future, 83% of respondents say they do not consider such an opportunity.

In order to establish the factors that can explain the agreement or disagreement of Romanians regarding the transition to entrepreneurship, this study will be based on the method of classification trees. We will try to divide the respondents into two categories, namely the category of potential entrepreneurs and the category of non-entrepreneurs.

The analysis will initially involve partitioning the data set as follows: a training set will be used that will contain approximately 80% of the collected observations and a test set that will include the remaining 20% of the observations. With the help of the `rpart()` function implemented in RStudio we will try to build a first classification tree.

**Table no 2. Building the classification tree using the `rpart()` function ()**

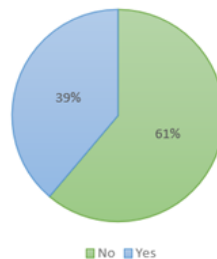
Node number 1	1217 observations	
Predicted class	No expected loss = 0.18 P(node)=1	
Class counts	1009	208
Probabilities	0.829	0.171

Source: Authors' own research

All 1217 observations in the training set are concentrated in the root node, the construction of a tree being impossible initially, due to the fact that the imbalance in the responses of individuals is pronounced. Most respondents say they are not interested in launching their own business in the near future. The situation of the answers of the interviewed persons, presented in Figure no. 2, but also the impossibility of building the tree indicates the fact that the class of potential entrepreneurs is poorly represented. 82.9% of the 1217 respondents do not consider launching a business in the next period. To balance the answers, in order to build the classification tree, we will use the ROSE package and function in RStudio. This function offers the possibility to rebalance the two classes by creating artificial units. Following the application of the resampling technique, the distribution of answers changes considerably, the proportion of positive answers being 39% compared to 17% in the initial situation. Applying this function to the data set indicates a slight balancing of the two samples.

*Figure no. 3. Distribution of responses following the resampling technique*

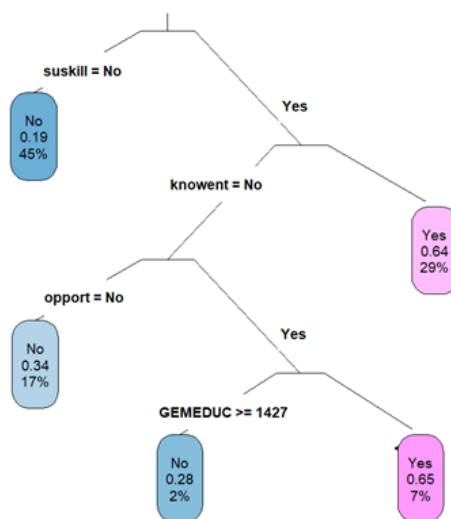
**Distribution of answers following the balancing of the data set**



Source: Authors' own research

The use of balanced samples should allow the construction of the classification tree. Estimating the model will lead to the construction of the tree in the following figure. Each node corresponds to three elements, namely: the predicted class, the probability of the second class (the class of potential entrepreneurs), as well as the percentage of the total observations assigned to that node.

Figure no. 4. Graphical representation of the tree



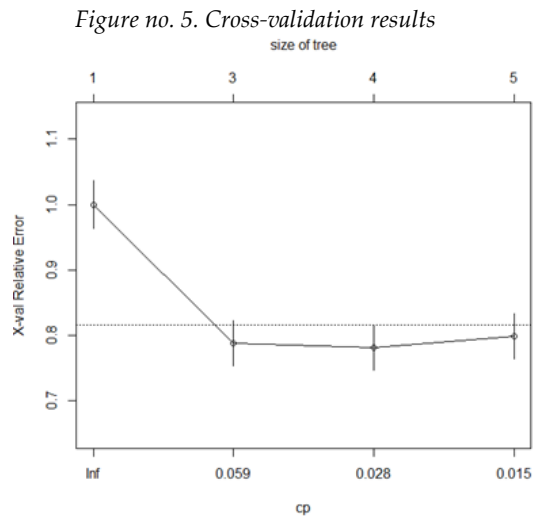
Source: Authors' own research

According to the estimated classifier, the individuals who consider that they do not have competencies and abilities that would allow them to start their own business, were assigned to the category of non-entrepreneurs. There is a 19% probability that individuals who do not have such skills will fall into the second category of entrepreneurs. On the other hand, respondents who are convinced that they are able to start their own business were assigned to the class of potential entrepreneurs, with a probability of 64%.

In addition, given the splitting of the classification tree, we notice that these individuals also know other entrepreneurs. 17% of respondents are assigned to the category of non-entrepreneurs, representing individuals who, although they consider themselves ready to become entrepreneurs given their abilities, do not know other entrepreneurs and do not perceive it as appropriate to launch a new business. 7% of the surveyed individuals are people prepared for the entrepreneurial path, who, although they do not know other entrepreneurs, perceive the launch of a new business as an opportune one and who have graduated higher education. These individuals were assigned to the class of entrepreneurs with a probability of 65%.

Having already built a classification tree, the next step is to determine its proper size. The optimal size will be identified using the cross-validation technique, which involves splitting the available units of the analyzed data set into two subsamples, one of the samples being used for

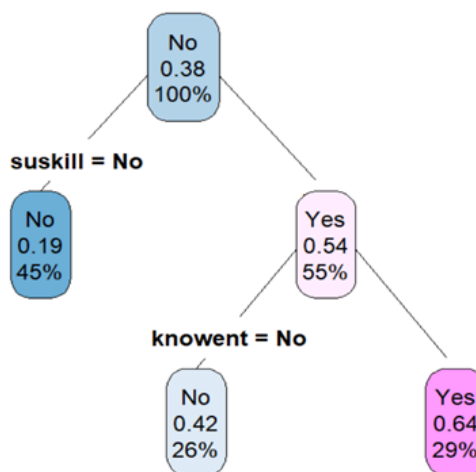
estimation and the other for validation. In the case of trees, the method involves dividing the initial sample into 10 equal subsamples, the estimate being made in turn on each of them, each of which will be removed. The test is performed on the removed sample. The results of cross-validation can be further consulted using the graphical method.



Source: Authors' own research

Based on the previous graph, it is necessary to choose the complexity parameter (cp). We will select the first value for cp where the curve falls below the dotted line, in this case the complexity parameter being equal to 0.059. The final tree constructed using the `prune()` function and the identified value of the complexity parameter is represented in the following figure.

Figure no. 6. Graphical representation of the final classification tree



Source: Authors' own research



Figure no. 6 shows the tree built after applying the `prune()` function. Pruning is the process of removing leaves and branches to improve the performance of the classification tree. It is noted that in the root node can be found all the observations used in the analysis. The respondents can be included in the second class, of the future entrepreneurs with a probability of 38%. Next, the nodes are divided considering the perception of having entrepreneurial skills and the knowledge by the respondents of other individuals who have become entrepreneurs.

The distribution in classes can be interpreted as follows: 45% of the Romanians surveyed were classified as not representing potential entrepreneurs, these being people who consider that they do not have the necessary training to start businesses. However, with a probability of 19%, they could be in the second class of future entrepreneurs. 29% of the respondents represent potential entrepreneurs, in that they consider that they have skills and experience typical of entrepreneurs and also know other entrepreneurs.

**Table no 3. The importance of the variables**

No.	Variable	Importance
1	suskill	53
2	knowent	20
3	GEMWORK3	7
4	GEMEDUC	6
5	gender	6
6	GEMHHINC	5
7	age9c	1
8	fearfail	1
9	opport	-
10	easystart	-

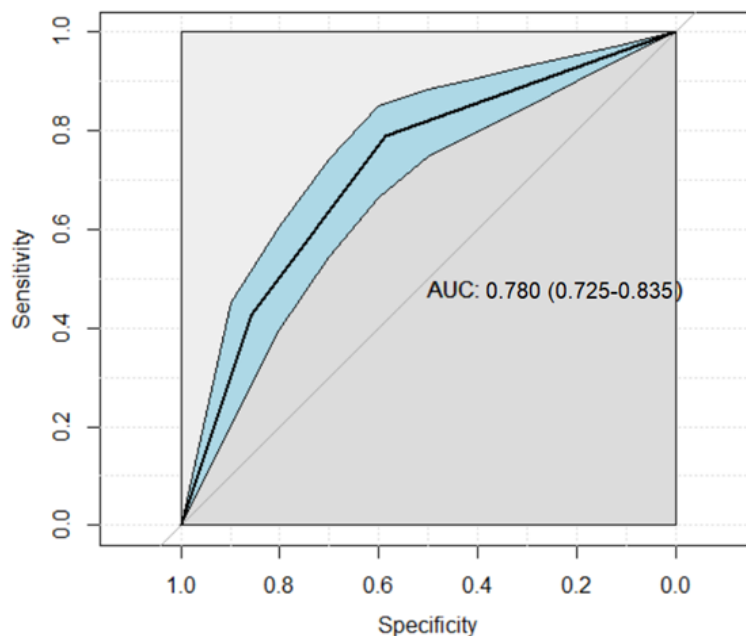
Source: Authors' own research

The predictor variables can be consulted in the previous table according to their importance in defining the belonging of an observation to a certain class. In the case of Romanian respondents, the decision-makers for their inclusion in the class of entrepreneurs or non-entrepreneurs are in principle related to their own perception regarding the possession of skills or experience necessary to start their own business. Also, an important role is played by the respondent's knowledge of an entrepreneur who has launched a business in the last two years.

The occupational status and completed level of education, as well as the gender and income category of the respondents seem to matter to a similar extent in the comments. The estimated values for the importance of these variables are close. Age but also the fear of failure have a weak explanatory power in Romania, by approaching the method of classification trees. The agreement or disagreement regarding the business opportunities in the respective country or the ease with which an individual can open a business do not constitute explanatory factors for the classification of the individuals in the two entrepreneurial or non-entrepreneurial groups.

The accuracy of the constructed binary classifier will be further studied using the measurement of the area under the ROC curve (Receiver Operating Characteristic). On the two axes in the graph shown in the following figure, there are two measures, namely sensitivity and specificity. True positive rate represents the proportion of correctly predicted observations as positive out of the total positive observations, while false positive rate indicates the proportion of negative responses but which were still included in the class of positive ones.

Figure no. 7. Accuracy of the estimated classifier



Source: Authors' own research

For an estimated classifier, its performance is as good as the ROC curve is directed to the upper left corner on a graph similar to the one in Figure no. 7. The classifier represented by the diagonal drawn in the graph exposes a random classifier. For the classification tree built in our study, we notice that the area under the ROC curve registers a value of 0.780 which indicates a very good performance and a good prediction ability.

## Conclusions

The growing interest of individuals in the direction of practicing entrepreneurship, as well as the contribution to economic growth has got the attention of many researchers and scholars on this subject. Globally, every year, more and more individuals turn to entrepreneurship and take the commitment and involvement to launch, develop and produce value within the companies founded by themselves. The latest statistics provided by the GEM organization indicate in mid-2020 that there are approximately 582 million entrepreneurs worldwide. Bringing a benefit on the labor market, by creating new jobs, entrepreneurship proves to be an activity that is not only for the benefit of the individual who practices it, but also on the people he works with, people who engage in the same activities.

The present paper considered the classification of Romanians into two groups, potential entrepreneurs and non-entrepreneurs. Using the answers collected to a questionnaire launched

by the Global Entrepreneurship Monitor and applying the classification tree method, an attempt was made to identify the causes that push Romanians to launch their own businesses. The classification tree method applied to the 1522 observations revealed that non-entrepreneurs are generally individuals who do not consider themselves to have specific skills, experience and knowledge of entrepreneurs. Also, in the class of non-entrepreneurs were included individuals who, although they perceive that they have the necessary skills to run a business, do not know other entrepreneurs and have not completed studies in higher education. 29% of the respondents included in the class of entrepreneurs are people who, beyond the fact that they trust their own skills, they know in their turn other individuals who have started different businesses and also have pursued higher education. Considering the importance of the variables in the classification process, we can conclude that at the level of Romania the factors that can justify the choice of entrepreneurship are the respondents' own confidence regarding their training and experience and the knowledge of other entrepreneurs. At the opposite pole is the vision regarding the business launch opportunities and the ease with which a business can be started in Romania. Although in Romania these factors do not significantly influence the entrepreneurial intention, in other societies this aspect weighs much more, the individuals taking into account in a much greater proportion the existing regulations and opportunities in their entrepreneurial ecosystem.

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# Management's attitude towards the crisis - a supporting factor for change and designing a strategic vision

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**Abstract:** Every crisis teaches its own lesson. From the multitude of economic and social phenomena, the crisis has a baleful force, both through the energies it engages and through the energies it consumes through manifestation. The crisis is the hardest lesson that forces us to be careful so that we can avoid it, overcome it. Crises can be "managed" to become bearable. The attitude of the management, expressed concretely by the activity of the leaders on different hierarchical levels, comes to maintain and influence the performances of the organization, to support the dynamics of the change processes and to help, in this way, to design and achieve the strategic vision. This paper intends to present some strategic visions and ways of exercising the missions of leaders in organizations determined by the requirements for change.

**Keywords:** management, organization, change management, crisis, strategic vision.

**JEL:** G10, M10, M15

## 1. Introduction

All over the world there are crises marked by record inflation, asset devaluations, wars or natural disasters, but none of them resemble the current crisis we are experiencing. The economy seems abandoned by people, certainly not voluntarily, yet it has been abandoned. There are many jobs lost every day of the crisis, jobs that will hardly return to the economy. Along with these, technical unemployment brings hundreds of thousands of other people.

More and more frequently, the organizations find themselves on the brink of change in a dynamic environment (Marinescu, Toma and Miulescu, 2018). Managers are obliged to place in the center of concern numerous activities, of which the following are essential: managerial forecasts and studies, managerial structure and equipment by applying methods and techniques based on forecasting, action and decision, to overcome difficulties due to changes worldwide (Verboncu, 2018).

Management finds its realization in the future (Tichy, 2000). Preoccupied by success, Tichy points out that, in the short term, managers prepare organizations to respond to change, while in the long term, they create successful organizations by adopting strategies to avoid failures.

According to Le Saget (1999), seriously preoccupied by the orientations and actions of the manager, he pleads, at the same time, for the necessity and the possibility of building a strategic vision. We will systematize his point of view as follows: it is very natural that the art of anticipating the future should concern the manager of the organization, for whom "to lead means to foresee".

The aim of this paper is to define management concepts, actions taken by managers, changes in the management of the organization, and the design of a strategic vision to maximize operational efficiency and ensure a high safety factor for organizations.

## 2. Literature review

Today, digitalization is leaking into our daily lives, and the Internet allows communication not only between people, but also between things, namely data-transmitting objects, IoT- the Internet of Things (Toma and Tohanean, 2018). If the 1980s marked the beginning of the transition from analog to digital technology, the use of the Internet began in the 1990s, in the 2000s there was a leap in mobile devices (FMLSA, 2017). Technologies that cause structural digital change continue to grow rapidly: robots that provide sophisticated services, drive cars, T-shirts that measure heart rate and body temperature, and then send the data directly to a medical center have all become a reality.

The processing power of the computers doubles every two years. The implication is that performance improvements will continue to replace human activities with digital tools. This affects any industry that has integrated computers into its operations – covering virtually the entire economy- and progress in machine learning and cloud computing has strengthened this trend (Iansiti and Lakhani, 2017).

Buckingham and Coffman (2004) come to the aid of professional managers by guiding them to discover themselves, a process they consider to be a true guiding force of a healthy career. They

should direct their people “today” to make the necessary changes, in the direction which they will take, towards performance.

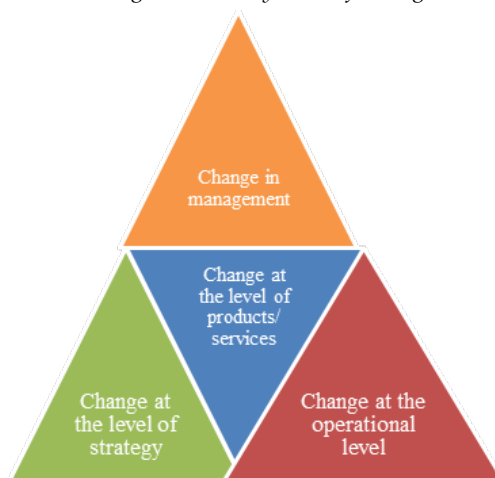
Value-creating management requires the flexibility of the ability to provide different services, depending on customer requirements, instead of a mid-level service for all users. In order for the organization’s activity to be adapted to the client’s needs, the managerial decisions have to be changed and directly connected to the reality of the market demand. A value-creating management is not limited to control, but embodies a different conception, oriented towards the value offered to the customer and the motivation of the staff (Coates, 1997).

In the current context, change can have multiple forms: change at the operational level, at the level of products/services, at the level of strategy and of course, change in management (Hamel and Breen, 2010). Each type has its contribution to success, but if we were to arrange these different forms of change in a hierarchy, in which the first layers denote the highest degrees of value creation and competitiveness, then the change in management would be at the top (Figure 1). Understanding why this is the case is an important step in developing the obligation to change and have a strategic vision in management (Marinescu and Toma, 2015).

The superiority of an organization at the operational level often depends largely on the organization’s IT infrastructure. The increasingly fast pace of technological progress gives organizations the chance to easily outperform potential competitors. Consequently, revolutionary products and services ensure that organizations maintain a top spot.

The pyramid continues with the change at the level of strategy through new and bold models in business that put competitors on the defensive. As for the change in management, it has a unique ability to create advantages that are difficult to recreate. Most managers find it easier to recognize the merits of a disruptive business model than to abandon the essential principles of their fundamental beliefs with regard to management. (Bolcaş and Ionescu, 2019).

Figure 1: The Pyramid of Change



Source: Authors' own research

Coates (1997) pointing out that changes focused on financial issues, whether they refer to the finances of the shareholders, of the company or personal finances, are not a goal and even less a vision, makes the following clarifications regarding the vision and, implicitly, the objective: the vision must be directed towards the future, to embody the perspective aspirations of the company, of the managers and of the entire staff; the goal has to be a decisive element in achieving the overall vision, the goal has to be directed both outwardly (customers, competitors) and inwardly (best employees, achieving high-class skills, etc.).

According to an internal study at the level of Romanian banks, and after some data presented by HotNews.ro in August 2020, the changes that occurred in their management due to the pandemic crisis this year were analyzed.

The data collected were processed in Table 1, and their dissemination and extensive presentation was carried out in Part 4, Results and discussions.

Table 1: Banks and changes in management in 2020 as compared to 2019

Banks / changes in management	BCR	Raiffeisen Bank	ING Bank	BRD-GSG	Alpha Bank	CEC Bank	UniCredit Bank
-increase in the use of digital products/electronic payment methods	yes	POS / online	POS / online	yes	online	online	online
-increase in consumer loans	yes	-	yes	yes	yes	no	-
-increase in mortgage loans/housing investments	yes	yes	yes	-		no / decrease	-
-increase of the savings account	yes	yes	-	-	-	yes	-
-decrease in cash withdrawals	yes	yes	yes	yes	yes	yes	yes
-insurance solutions	yes	-	-	-	-	-	-

Source: Authors' own research

### 3. Research methodology

This article is a research study based on the authors' observations and literature investigation for two purposes:

- 1) To focus on the activity and immediate actions of organizations in times of crisis;
- 2) To present a new perspective on how to lead organizations in a dynamic context characterized by a lack of predictability.

To achieve the objectives of this paper, the authors used the method of quantitative research and the dissemination of a study published by HotNews.ro and internal reports of organizations presented in Table 1. The quantitative method deals with measurable data and is based on collecting, processing and summarizing information from various secondary data sources. To this end, the authors collected information from books, academic journals and reports. The literature review was carried out by consulting representative titles of articles, studies and research from



international databases such as ProQuest, Springer, Emerald Publishing, ScienceDirect, in fields such as economics, finance-banking, management.

#### 4. Results and discussions

Starting from the specialized literature, the authors of this paper highlight a relationship between the manager's attitude to change by designing a strategic vision and adopting measures that bring benefits.

The year 2020 for banks is a difficult one, with official estimates suggesting that up to 12% of the banks could register losses in the current financial year, profitability per customer being reduced by about 60% compared to 2019. Although most banks carry out internal studies and research to see what their customers want, there are also unanswered questions.

Banca Comercială Română, through its representatives, says that in the first seven months of 2020 the transactions performed through the George platform doubled and a share of 30% of the total consumer loans granted exclusively digitally was reached. This year, compared to 2019, there is an overall increase of 40% in the services and products purchased digitally at BCR, which says a lot about changing options among customers.

Raiffeisen Bank (2020) reports a 24% increase in cashless debit card transactions and a 10% decrease in cash withdrawals. 10% of the customers who traded exclusively in cash made the first payment transaction by card in the first half of 2020, therefore there are clear signals of change. This preference is reflected in the spectacular developments registered in June 2020 compared to June 2019: an 80% increase in the number of transactions made through digital banking applications and a 20% increase in the number of customers using digital services.

ING Bank, according to Javier Montes Pita – Head of Retail, ING Bank Romania, half of the mutual funds or 44% of personal loans are accessed directly from the Home Bank application. Online operations have grown more than desktop operations. As regards e-commerce, although the volume of transactions has a similar increase as in other years, their value was 20% higher.

BRD-GSG, from internal analyses, shows that the volume of transactions through digital channels increased by 32% in the first half of the year compared to the same period last year, the volumes spent by the customers on e-commerce have doubled, with peaks in supermarkets, pharmacies, utilities and taxes.

Francois Bloch, CEO of BRD-GSG, mentions that: "In a scenario of gradual return to normal, in parallel with solving the health crisis, business models, which take into account customer behavior and expectations, will incorporate the main conclusions of this period, but we will not see radical paradigm shifts".

Alpha Bank informs, through Florin Branici, Manager of the Alternative Channels Department, that simpler or immediately necessary banking products such as the credit card or personal loan are granted, in some cases, without presence in a banking unit, and the same approach is applied in the case of opening an account or obtaining a debit card.

CEC Bank, through Bogdan Neacșu, CEO of the largest Romanian state bank, states that "the SME Invest program has invigorated demand in the corporate segment, but at the public

level, it is very important to regain confidence in tomorrow so that we can rev the engines of the economy". At the bank level, there is a negative impact on loan demand, which has fallen by up to 60% as people have suddenly become much more cautious and more interested in savings.

UniCredit Bank, explains AntoanetaCurteanu, Executive Vice President of the Retail Division, that digitalization is a real necessity for those who want to continue to develop. Despite the conditions in which it took place this time, the change is good – it can bring opportunities that we sometimes would not think about otherwise.

These are realities of the pre-COVID Romanian market, determined by changes in customer behavior, which have become accelerated at the same time with this crisis.

According to the research and data provided by HotNews.ro in August 2020 and reflected by the representatives of several banks, the following aspects were revealed in order to find out what they expect from customers, but also what changes were made at the management level:

- the vast majority of customers used digital channels;
- electronic POS or online payment methods were used;
- increase in consumer and mortgage loans;
- increases recorded in savings and deposit accounts;
- decrease in cash withdrawal transactions.

Banks are in constant contact with the needs and expectations of customers both through the feedback received from colleagues in the front office, and through market research platforms and feedback collection. This allows them to observe and respond to changes in the market. The behavioral changes are part of the expected and anticipated trends for the adaptation to the new reality of this year.

It is clear that consumption habits and investment will change again, as in the previous crisis, but banks have to be ready to anticipate and calibrate their products and services while continuing to invest in digitalization and education.

## 5. Conclusions

Managerial practices have evolved considerably and the managerial environment is more volatile than ever:

- Deregulation, together with the filtering effects of new technologies, are likely to significantly reduce the barriers for the access to a variety of industries, from advertising to telecommunications, banking and the air industry.

- The digitalization of any products threatens the organizations whose activity consists of the creation and sale of intellectual property. Pharmaceutical organizations, publishing houses, banks are struggling to conform to a world in which information and ideas "adhere to freedom".

- The Internet rapidly transfers the negotiation power from production to consumption. At present, consumers have unprecedented control – and in a world of almost impeccable information, there is less and less room for mediocre products and services.

- The life cycle of strategies decreases. Thanks to the power of outsourcing services and the global permeability of the Internet, a business can grow rapidly, but it depends on and becomes intertwined in a network with others.

- Collaborative digital tools are beginning to gain ground in various sectors and it does not take long until they prove their reliability through the results they bring to those open to change.

- ⊗ Communication costs prevail and hold a high percentage of an organization's total costs.

These new realities require new organizational and managerial skills. In order to prosper in an increasingly fierce market, organizations will need to become as strategically adaptable as they are operationally efficient. To maintain their profits, they will have to become able to break some rules, through strategic thinking, in order to rank above the other competitors.

Organizations overly concerned with execution and sustaining the moment have to understand that the best way to make a difference is to permanently change the business model, to initiate bold ideas through a strategic vision. There are certainly no clear solutions for management. What we know now is that our world, at least for a while, will be different. Now we need managers, now we need commitment, now we need ... hope.

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## The management of European football clubs in the COVID-19 pandemic

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**Abstract:** The COVID-19 pandemic affected society in general and the socio-economic environment in particular. The effects of this health crisis immediately spread to the economic and financial environment, affecting most industries. This article aims to analyze the impact of the COVID-19 pandemic in football clubs in the five most important championships in Europe. The methodology was based on a quantitative research method. The results of this analysis show that the football industry has been significantly affected, and the prices that clubs have been willing to invest in acquiring new players in 2020 have fallen dramatically compared to previous years. This paper may be useful to those who want to understand the implications of the pandemic in economics, in general, and in football, in particular.

**Keywords:** management, European football clubs, COVID-19 pandemic, football industry

**JEL:** M10, M19

## 1. Introduction

The COVID-19 pandemic has led to an unprecedented situation, with incalculable health, social, and economic consequences. At the start of the outbreak, the financial markets collapsed, although not all sectors suffered equally (Lopez-Cabarcos, et al., 2020; Mon-Lopez, et al., 2020).

The COVID-19 pandemic has forced governments around the planet to restrict mobility and enforce social distancing measures to stop the spread of the virus (Anderson, et al., 2020; Catana, 2020; Wilder-Smith, et al., 2020; Lopez-Cabarcos, et al., 2020).

The evolution of the pandemic has been a matter of debate, since different strategies can be adopted to mitigate the spreading of COVID-19, some of them with unclear or unpredictable consequences (Buldu, et al., 2020; Hughes, et al., 2020).

The COVID-19 outbreak has paralyzed the sports industry, not just in terms of competition part of sports at the elite level, but also current sponsorship deals and broadcasting rights, employees' salaries, insurance companies, and a host of other stakeholders (Lopez-Carril and Anagnostopoulos, 2020). Starting from this idea, as well as considering the importance of football player transfers, this article aims to analyze the impact of the pandemic on the amounts paid by the most important football clubs in Europe. The research is based on a quantitative research method. The paper contains four other sections as follows: literature review, research methodology, results and discussion, and conclusions.

## 2. Literature review

European Football has significantly changed especially over the last 20 years, following an intense process of trading and marketing, a process that has brought important sums of money (Dima, 2015).

The phenomenon of concentration is found in sports. Today's football has become a real industry in which large sums of money are circulated (Toma, et al., 2014). The biggest clubs on the planet concentrate the best footballers in the world, the most financial resources, the best coaches, the most modern training bases, etc.

European football club is a business with more and more attractive numbers for investors, shareholders or partners throughout the planet (Dima, 2015).

Starting from these ideas, in the literature review there are presented different patterns in order to feature the financial structure of contemporary professional sports (Andreff and Staudohar, 2000; Bourg and Gougnet, 2012; Bastien, 2013).

In professional football, teams from European leagues have three different options to acquire their players (Hacking, 2019):

- o teams can train young players to a professional level;
- o teams can sign players whose contracts expire or who are currently without an employer and therefore free of charge;
- o teams can compensate competing teams to sign one of their players with an ongoing contract. In this case, transfer fees are paid.

### 3. Research methodology

In order to attain the aim of the paper the authors used a quantitative research method. The quantitative method deals with measurable data and is based on gathering, processing and summarizing information from various secondary sources of data (Toma, et al., 2020). First of all, the authors identified the sources of information and searched for data in scientific articles and books from the areas of business and football management. Then, they analyzed the data regarding the player transfers made by the European football clubs, in the last three years. Thirdly, they performed the literature review. Finally, the authors analyzed, synthesized the information and composed the paper.

### 4. Results and discussion

This article aims to present and analyze data on player transfers made by the 10 most valuable football clubs in Europe, as well as data on the most important transfers made by the most important European championships in 2018-2020.

According to UEFA (Union of European Football Associations) data, analyzing the association club coefficients, the five most important football championships in Europe are the first leagues in the following countries: Spain, England, Germany, Italy and France (UEFA, 2020).

The following table shows the total amounts allocated to the transfers of players of the clubs from five most important championships in Europe in the last 3 competitive seasons (2018-2019, 2019-2020 and summer window from the 2020-2021). Considering the fact that the number of clubs in the first leagues differs from one country to another, in order to be able to compare the data in a unitary way, in the following table (Table 1) are presented the total transfer amounts of the 20 most spending clubs in each country:

*Table 1: Top 5 most important championships in Europe – expenditures for player transfers in the last 3 competitive seasons*

Rank	Country	Total expenditures in 2018-2019 (millions EUR)	Total expenditures in 2019-2020 (millions EUR)	Total expenditures in 2020-2021 -summer window (millions EUR)
1	Spain	1,031.85	1,524.94	428.3
2	England	1,702.44	1,868.59	1,476.89
3	Germany	589.86	979.81	326.25
4	Italy	1,340.46	1,439.92	778.69
5	France	541.08	648.34	437.13
<b>TOTAL</b>		<b>5,205.69</b>	<b>6,461.6</b>	<b>3,447.26</b>

Source: data provided by Transfermarkt (Transfermarkt, 2020)

As can be seen, in all the five football championships presented, there is a significant decrease in costs with player transfers in the 2020-2021 competition season (summer window), compared to the amounts from the previous two competitive seasons. On the other hand, it should be

mentioned that for the current competition season (2020-2021) the winter transfer window (2021) will have to be taken into account. Even with this in mind, major differences between last two seasons and the current one can be observed.

Based on the last five years club coefficients, the best ten football clubs from Europe are: FC Bayern München (Germany), Real Madrid CF (Spain), FC Barcelona (Spain), Club Atlético de Madrid (Spain), Juventus (Italy), Manchester City FC (England), Paris Saint-Germain (France), Sevilla FC (Spain), Manchester United FC (England) and Liverpool (England) (UEFA, 2020). In most cases their brand value is worth hundreds of million USD (Toma and Catana, 2020).

The following table (Table 2) shows the amounts allocated to the transfers of players of the ten most important clubs in Europe in the last 3 competitive seasons (2018-2019, 2019-2020 and summer window from the 2020-2021):

*Table 2: Top 10 most valuable football clubs – expenditures for player transfers in the last 3 competitive seasons*

Rank	Club name	Total expenditures in 2018-2019 (millions EUR)	Total expenditures in 2019-2020 (millions EUR)	Total expenditures in 2020-2021 -summer window (millions EUR)
1	FC Bayern München	10	139.5	62
2	Real Madrid CF	162.75	352.2	0
3	FC Barcelona	129.1	284	124
4	Club Atlético de Madrid	167.5	245.3	65.5
5	Juventus	263.2	223.5	110.2
6	Manchester City FC	78.59	159.52	163.3
7	Paris Saint-Germain	217	95	61
8	Sevilla FC	80.05	177.75	64.5
9	Manchester United FC	82.7	214.78	83.5
10	Liverpool	182.2	10.4	79.7
<b>TOTAL</b>		<b>1373.09</b>	<b>1901.95</b>	<b>813.7</b>

*Source: data provided by Transfermarkt (Transfermarkt, 2020)*

The data presented above show that, taking into account the top ten football clubs in Europe, it is observed that the transfer amounts increased in the competitive season 2019-2020 (on average an increase of 35%), compared to the amounts in the 2018-2019 season and in the case of each team the amounts expenditures recorded a dramatic decrease (on average a decrease of 50%) in comparison with the last season.

The data in the two tables (Table 1 and Table 2) reflect the fact that the COVID-19 pandemic influenced the transfer market in Europe. Also, considering these data, it is found that the vision of the clubs has been changed, they prefer to acquire free contract players or players for whom they do not have to pay large transfer amounts.



## 5. Conclusions

The management of European football clubs in the COVID-19 pandemic has changed radically in terms of investments in the acquisition of new players. In changing environments such as the pandemic, traditional management may not be an efficient solution and football clubs must have a more flexible style. For that reason, the paper presents the fact that the amounts spent on the transfer market in the summer window of the 2020-2021 competition season have decreased dramatically compared to the amounts spent in the last two competitive seasons. Without claiming to be an exhaustive research, the paper tries to highlight some major differences in football club management in the context of COVID-19 pandemic.

Considering the limitations of the article, it should be mentioned that the analysis was performed in Europe, being considered the most important 5 championships and 10 clubs. Therefore, the future research could include the actions taken by the other football clubs in Europe or in the world.

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# The concept of innovation with some insights from resource-based view and evolutionary theory

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**Abstract:** The aim of this paper is to present some approaches to study innovative activities from the company's perspective with a focus on resource-based view and evolutionary theory. In the resource-based approach, companies develop competitive advantages through resources and innovations that are rare and difficult to imitate. The current economic environment is increasingly turbulent and companies are developing skills through human resources, technologies and Research & Development to cope with declining product cycles and faster technological changes. In evolutionary theory, innovations are heterogeneous and firms learn dynamically from interacting with other firms and technologies, from which incremental or radical innovations can emerge. After a new technology appears, the embedded part of the technology will be disseminated within the industry through some channels and the non-embedded part of the technology will accumulate some idiosyncratic knowledge within the innovative companies through the appropriation of knowledge and knowledge spillovers. There are two major trends in studies, some do not study the innovation per se but are oriented towards the transformations regarding the innovative strategies of the companies in different economic and social environments. The other trend of studies is oriented towards the innovation process itself which has evolved from a linear process of R&D-patent-innovation-market to one towards open-innovation in which the company interacts with other entities.

**Keywords:** innovation activities, resource-based view, evolutionary theory, competitive advantage, technological changes.

**JEL Classification:** D21, L25, O33

## Introduction

Most inventions represent new acts of understanding, instead a major invention involves significant critical review work because old ideas can be adapted to a particular use. This idea remained in the economic literature of innovations and is expressed by the notion of “incremental” learning, meaning that certain minor contributions can be made to a particular product, and over time, these small contributions will reflect in an innovative product. The advantage of this theory is that some “stages” are established through which the individually effort can be oriented towards the choice of innovation directions that are considered more economically efficient. Innovation can be differentiated as objective efforts and subjective perceived innovation.

When it is measured by R&D expenditure with the aim of obtaining a certain innovation, it represents an objective measurement. When a manager is asked in a questionnaire if he has introduced a certain innovation in a certain period of time, it represents a subjective perception that can change. In general, innovation is seen as the implementation in the company “of a new or significantly improved product, or process, or marketing method, or organizational method of good practice” (OECD, 2018). The literature studying the innovation term shows that there is a very wide range of innovative activities especially as uncertainty and risk are present in all stages of process innovations.

In the Oslo Manual (OECD, 2018) we find that innovation can be measured both as a process and as a result, thus there are two distinct definitions. Innovation is measured by inputs and innovative activities or as resulting innovations. Innovative activities include all commercial, financial and development activities carried out by a company that seeks to obtain an innovation. A business innovation is a product or process that is new or improved and differs significantly from products or processes that have already been introduced in the company or market.

There is a distinction between companies that have introduced innovations during the analyzed period and companies that are innovative in the sense that they have the potential to innovate in the future. In this interpretation, even if a company is active-innovative and has not introduced an innovation during the analyzed period, then the company is non-innovative. During the analyzed period, creative activities, Research & Development, etc. can be carried out without being completed by introducing a product innovation or a process innovation.

## Literature review

Business innovation capabilities is a concept recently introduced in the Oslo Manual (OECD, 2018) and includes the resources, knowledge and skills that a company accumulates over time. The company’s objective is to improve economic performance and can be achieved by carrying out innovative activities. Innovative activities can be performed within the company, can be transferred from other firms or a combination of the two options, and represent a key element of the business models of many companies in the Fourth Industrial Revolution (Toma and Gradinaru, 2017; Tohanean and Toma, 2018; Toma and Marinescu, 2018).

Becheikh, et al. (2006) conducted a comprehensive study on manufacturing and considered innovation as an independent variable identified by innovation and studied the following

internal factors, seen as specific to the company: general characteristics, global strategies, company structure, control activities, culture, assets and functional strategies and management team. The limitation of the study is that they considered only the manufacturing sector and innovation is strictly related to product and process (Becheikh, et al., 2006).

Galende (2006) identified five approaches to the company's innovative activities: industrial organization, transaction cost analysis, positive agency theory, resource-based vision and evolutionary theory. There is a complementarity between these approaches and they can all be used to measure some perspectives of the innovative activity.

Galende (2006) describes the following perspectives on measuring innovative activities:

- Industrial organization is an approach in which the effects of external factors on innovation are studied;
- Transaction cost economics studies the relationship between the market and the company as a means of planning innovations;
- Positive agency theory studies the effects of different interests of economic agents on the innovative activity of the company;
- The resource-based view highlights the importance of internal resources for competitive advantage, including innovation;
- Evolutionary theory studies the ways in which the innovative process is carried out in the company and highlights the degree of heterogeneity of innovations.

Transaction cost theory and the neoclassical production function of new industrial economics is a marginalist approach in which costs are compared with the marginal benefits of various alternatives that do not allow a concept such as "innovation networks" based on mutual trust in a co-operative relationship (Pyka, 2002).

### **Research methodology**

The research method is based on a qualitative approach and provides a conceptual overview of innovation through some of its elements such as knowledge, learning, competencies, Research & Development, intangible, non-embedded and embedded technologies. Several bibliographic sources were consulted from the Central University Library via ANELIS PLUS from databases such as Emerald Publishing, Springer and ScienceDirect to cover the topic of the paper.

### **Results and discussion**

The study compares the concept of innovation and innovative activities in two theoretical approaches, namely resource-based view and evolutionary theory.

The resource-based view suggests that companies create value and are competing through resources that are unique, rare and difficult to imitate. The development of innovative capabilities becomes a critical activity for the evolution of the company. Innovation can be generated from a variety of sources, internal through R&D and creativity of employees. Also, innovation can be obtained from external sources through collaboration with other companies or from customer feedback. Companies use creativity and are innovative to survive in the face of competition and

to grow and the current economic environment is characterized by faster technological changes and shorter product life cycle.

Innovation is the main element to gain a competitive advantage (Lukovszki, et al., 2020). In the resource-based view of internal factors, the focus is on intangible assets as an important aspect of the strategic analysis of innovation as a source of competitive advantage (Galende, 2006). Innovation has an intangible component along with other intangible resources with which it interacts and which are used in companies' strategies.

Porter (2001) shows that firms should be both competitive nationally as well as internationally. In Porter's (2001) view, companies can invest strategically in competitive advantages to compete through costs and / or quality in the components of the added value of the supply chain in an attempt to be competitive domestically and / or at an international level. In order to become as efficient as possible, companies should give up their comparative advantages offered by the use of cheap labor and channel resources to invest in some competitive advantages. To be competitive, some companies opt for a strategy of adoption of new technologies. In the literature we find a structural distinction between innovative and non-innovative companies, in the sense that certain specific patterns of behavior are created by the innovative companies.

Various approaches to the relationship between performance and innovation in the company are structured by Brusoni, et al. (2006), a higher level for R&D spending involves greater learning opportunities about new technologies but also a process of harmonization within the company. Companies invest in R&D to get updated to new technologies, new production processes, new products etc.

Brusoni, et al. (2006) argue that firm survival and growth depends on their ability to successfully adapt their strategies to the turbulent environment in which it operates. Zahra and Covin (1993) show that the adopted technology differs significantly between companies, but also the business strategy differs and the business strategy affects the intensity of the relationship between the company's performance and the adopted technology.

Efendioglu (2007) argues that a competitive business strategy includes the ability to benefit from the latest technologies and to integrate them efficiently in one's own production system, but also the ability to adapt the company from the old industry to the new industry. One way to invest in competitive advantages is to formulate strategies for the company in ways to try to permanently access advanced technologies. Lukovszki, et al. (2020) considered that the performance of innovation is a synergistic effect of the company's competencies, innovative effort and resources. An innovation can bring the company a higher level of performance, but the competitive advantage is obtained only if consumers perceive the improvement of the product compared to alternative products (Torres and Augusto, 2019).

According to the Oslo Manual (OECD, 2018) the effects of innovation on competitiveness are:

- an improvement of the company's position in the market or the increase of consumers' utility and includes the diffusion of innovation, meaning that innovation can come from the efforts of the analyzed company or from the efforts of other companies;
- an innovation has the potential to transform or create markets and is an indicator on the

intensity of innovation, whether it can create disruptions or radical transformations in the market;

- the effects of innovation on the company's competitiveness can be observed for product innovations by measuring sales over an analyzed period of time or by future expectations regarding the effect of innovation on competitiveness.

Montalvo (2006) considers that companies engage in innovative activities due to constraints to maintain their competitive position in the market, where the market is seen as an external pressure. The interactions between innovation, technology institutions and economic dynamics represent the sources of evolution of the economy through differentiation and selection, while innovation and entrepreneurship are defining processes that create variety and selection in industries (Malerba and McKelvey, 2020).

Luño and Cabrera (2012) argue that in a turbulent environment with higher uncertainty, the generation of innovations works better than adopting innovations and radical innovations will emerge rather than incremental innovations.

Martínez-Sánchez, et al. (2020) tested if some human resource (HR) flexibility mediated the relationship between R&D efforts and the absorptive capacity (AC) of knowledge and found that the mediator effects of HR and AC are positively related to innovation performance. There is a strong effect to performance when it is based on the innovation from the complementarity of innovation resource and capability because the firms with superior learning capability will question their routines and adjust from feedback (Sok and O'Cass, 2011). Technological capabilities and innovation strategy have had a greater influence on performance innovative versus customer-supplier relationship, formal structure and culture of innovation constructs (Rifat, 2015).

Gu, et al. (2016) found that cooperative networks and customer input have a positive impact on the innovation performance of high-tech SMEs and R&D positively moderates the relationship between network size, customer input and innovation performance in high-tech SMEs.

In evolutionary theory, knowledge is heterogeneous and company-specific, innovations are difficult to pass on to other firms and represent a strategic asset over competition. Evolutionary theory is an alternative approach to draw the sources of innovations as being created by the dynamics of the market in which the company operates. Companies can change their market position through innovations and looks for ways to capitalize on a certain innovation.

From the economic perspective, the sources of innovation, the factors that generate it and the effects of innovations on industry and economy are studied. Companies constantly identify the available options depending on the context in which they are, the degree of uncertainty of technologies, the behavior of competitors and consumer behavior, companies must learn dynamically about new technologies, change their capacity, adjust the organizational structure etc.

The technologies can be incorporated or not incorporated in the technical capital and are distributed within the industries. Some technologies are easy to imitate by companies, but even when they are imitated, there is a process of learning and adapting that technology to local conditions and to the specific conditions of the company. As the company accumulates knowledge about the respective technologies, the organizational structure changes and new competencies are acquired by the human capital. When an innovation is introduced in the company, it can be

new for the company, new for the industry or new for the world and will create new technological trajectories for that company, that respective technology, that industry and for the economy.

Non-embedded technologies can be seen as a stock of knowledge that accumulates within the company and is found in the development of new skills of human capital, can be stored in databases or can be combined in R&D activities. This knowledge can be tacit or explicit and accumulates in certain directions of development within the industries and creates permanent changes in the organizational structures of the company and in the competencies of the human capital.

There are some degrees of uncertainty about future technological developments and future radical changes cannot be anticipated, but there are constantly small changes in existing technologies, as measured by incremental innovations. At the same time, there is the possibility of the emergence of revolutionary technologies that will bring “mutations” within the structure of the economy. A distinction can be made between embedded technology in capital and non-embedded technology which is an important analytical approach because embedded technical progress is much easier to signal through the market mechanism. After the emergence of a new technology, you can follow the channels through which this technology will broadcast between companies from an industry.

However, there are problems in measuring the effects of non-embedded technology, for example, an employee who has tacit knowledge about the use of an equipment can change jobs and work for another company. Unembedded technological changes are characterized by a dynamic process that consists in the accumulation of knowledge and the firm-innovator learns in specific ways about technologies.

Evolutionary theory has contributed to studies on the internal features of innovation, types of innovation, innovation objectives, mechanism for approximating the results of innovative activity, patterns of innovation and spillover effects (Galende, 2006). Meissner and Kotsemir (2016) reviewed the innovation models and identified the innovation management process models from the historical perspective: technology push, market pull, coupling model, interactive model, integrated model, networking model and open innovation. In the “innovation management process models” approach, innovation is not analyzed as a process per se, but are studied the transformations of management strategies in different social and economic contexts.

Meissner and Kotsemir (2016) classified the conceptual innovation process models from the historical perspective: black box model, linear model, interactive models, system model, evolutionary model and innovation milieu model and in all these models the study of the regional or national “innovative system” is pursued. The models of the first generation of “conceptual innovation process models” considered the innovation process as a linear one, there being a succession between R&D, patents, innovation and marketing through the market and shifted to the current approach which is specific to “open innovation paradigm” in which innovation is a system of interactions and relationships between different entities and companies.

Lee, et al. (2012) found that co-innovation is a paradigm in which new approaches and ideas from internal and external sources are integrated into a platform that generates new shared values and includes co-creation, engagement and experiences that are hard to imitate. In this view of theory, the company’s internal competencies are no longer sufficient for it to remain competitive



and there is a global business ecosystem in which the economy, governments, firms and individuals are networked and create a process of co-innovation.

### Conclusions

Both resource-based view and evolutionary theory have important contributions when studying innovative activities. Some approaches are from the company's perspective and respond to different economic and social situations. Complex interactions regarding competitiveness, competencies, synergy, knowledge, learning, etc. are studied in flexible, dynamic, integrated, fluctuating or interconnected processes. In evolutionary theory, knowledge is specific to the company and has a high degree of heterogeneity, it accumulates for each technology and for each industry.

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## Entrepreneurs, managers and leaders

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**Abstract:** *Entrepreneurs, managers and leaders are important players in a competitive market economy. Entrepreneurs create and develop businesses, by manifesting initiative and entrepreneurship, which are real drivers of economic development in the contemporary period. Managers design and implement organizational strategies and policies, the fundamental objective of which is to obtain sustainable competitive advantages. Leaders, through their informal authority, charisma and their ability to relate and communicate, give credibility and consistency to entrepreneurial and managerial actions. Entrepreneurs and managers need to gain the support of leaders in substantiating, adopting and implementing organizational change projects, which are essential in an increasingly dynamic business environment. The paper provides an integrated perspective on issues related to entrepreneurs, managers and leaders, highlighting similarities, differences and points of interference among them.*

**Keywords:** *organization, change, entrepreneurs, managers, leaders.*

**JEL Classification:** L26, M10, M21, O10.

## 1. Introduction

Entrepreneurship, management and leadership are key vectors for the competitiveness of organizations in an ever more complex and dynamic business environment.

Entrepreneurship is the most certain way to thrive in an uncertain, constantly changing world. The reduction in the number of jobs is one of the worst consequences of economic crises, and often people who had never planned to become entrepreneurs choose this solution to overcome the crisis (Farrel, 2011).

Becoming an entrepreneur is the best way to thrive in the future world economy. Preparing for survival through your own intelligence is no longer an alternative lifestyle, but an absolute necessity in this uncertain world, dominated by downsizing (Farrel, 2013).

Modern management, comprising variance analysis, budgeting, project management, the "pay-for-performance" concept, strategic planning and others, is one of the great inventions of mankind (Hamel and Breen, 2010).

The performance registered by the organizations is conditioned by the competence of the managers and human resources involved in the execution processes, the cultural context in which they carry out their activity, and the influences exercised by the national and international business-environment factors (Verboncu and Corcodel, 2014). It is, therefore, essential the competence of company managers, which is mainly determined by their ability to understand and implement the principles, models, methods and techniques offered by the management science.

Leadership is an activity with a strong creative interpersonal dimension and which involves the initiation and propagation of change almost at all times. Managers and leaders, as key actors of change processes, have to develop constantly the companies that they lead (Landsberg, 2008).

Leadership, manifested in organizations at three levels – team, operational and strategic – is essential in building and developing an evolutionary cultural model which, in its turn, is an important vector of the organizational change processes within modern companies (Ionescu, 2014).

Managers and leaders must initiate and coordinate processes of change in organizations. It is a fact that, in many companies, the change is not regarded as a natural process of organizational and individual development, but as an event which must occur at a time, under the pressure of influential factors from the business environment. In this context, we consider that managers and leaders must have strategic vision and develop a proactive attitude as regards the organizational change projects.

## 2. Literature review

In specialized literature there is a significant number of studies, research and articles dedicated to entrepreneurs, managers and leaders. We will present below some representative approaches regarding entrepreneurs, managers and leaders, developed over time by renowned specialists in economics, entrepreneurship, management and leadership.

The entrepreneur is not only a key character of the economy with a competitive market that translates ideas into businesses by taking advantage of opportunities offered by the market

but also a key element in achieving business success and ensuring company's sustainability (Marinescu, et al., 2017; Toma, Marinescu and Gradinaru, 2017). Therefore, we assume that the market, i.e. the business environment, always offers opportunities, but the entrepreneur has to carry out the "business idea - business opportunity" coupling in order to initiate and develop an entrepreneurial process.

The concept of entrepreneur was introduced by Richard Cantillon in his work "Essai sur la nature de commerce en general", published in 1755. He considers that the activity of an entrepreneur lies in procuring and combining the factors of production in order to obtain products intended for sale on the market.

Jean-Baptiste Say, the first professor of political economy in Europe, found that an entrepreneur must possess "...judgment, perseverance and an understanding of the world and business. He has to estimate with tolerable precision the importance of products, the likely level of demand and the factors of production required at a certain time".

Schumpeter marks an important moment in the evolution of the entrepreneur concept. In his opinion, the entrepreneur is a person who brings novelty elements (a new product, a new production process, etc.) (Schumpeter, 1934).

The renowned specialist Carland distinguishes between the owner of a company and an entrepreneur. The owner creates and runs an undertaking for personal interests, while the entrepreneur influences and coordinates the activity of an organization, having as central objective obtaining profit (Carland et al., 1984).

The American Professor Peter Drucker considers that since the 80s we have been witnessing an entrepreneurial revolution, reflected in the shift from managerial economy to entrepreneurial economy. In his view, the entrepreneur is the person who permanently looks for changes, his actions having a predominantly practical nature (Drucker, 1985).

An interesting approach is the one of the Canadian researcher Jean Marie Toulouse, focused on three axes of human activity: value system, degree of commitment and intensity of actions (Toulouse, 1997). According to this approach, the entrepreneur pays special attention to the autonomy and freedom of decision, assumes the risks involved by his activity and has a strong inclination towards action, showing creativity in solving the problems that he is faced with.

Professor Eugen Burduş finds that the entrepreneur is a person who creates new businesses, assuming risks in achieving the objectives, by identifying opportunities (Burduş et al., 2010).

Marius Ghenea, a successful Romanian entrepreneur and professor of "Entrepreneurship, Innovation and New Business Ventures" at Maastricht School of Management, proposes a simple but suggestive definition of the entrepreneur. According to this definition, the entrepreneur is the person who looks at a problem and sees it as an opportunity, and then acts on it. All people see problems in their daily lives, some of them identify solutions to these problems, but very few go further and act to implement solutions. This approach highlights the fact that an entrepreneur is a person who has ideas and acts based on his ideas to turn them into business projects (Ghenea, 2011).

In our opinion, the entrepreneur is one of the main actors of an economic system with competitive market as he creates new organizations and develops existing organizations. The starting point of the entrepreneurial action is the business idea, which the entrepreneur puts into practice by detecting and capitalizing an opportunity existing on the market, making use of a set of resources (Ionescu and Bolcaş, 2019).

In specialized literature there are numerous works approaching the subject regarding the qualities that an entrepreneur should have. Marius Ghenea has outlined the following list of qualities required for entrepreneurial success (Ghenea, 2011):

- ⊙ vision;
- ⊙ intelligence and creativity;
- ⊙ knowledge of the field of activity;
- ⊙ perseverance and determination;
- ⊙ charisma and persuasion;
- ⊙ responsibility;
- ⊙ capacity to make decisions quickly;
- ⊙ identification of solutions for existing problems;
- ⊙ entrepreneurial flair;
- ⊙ positive thinking;
- ⊙ passion for their own business;
- ⊙ personal ethics;
- ⊙ confidence in people;
- ⊙ attitude.

No entrepreneur can meet all these qualities in the superlative, yet it is important to possess a balanced combination and appropriate weights thereof. As regards positive thinking, an aphorism of the great British politician Winston Churchill is quite eloquent, saying that “An optimist finds opportunity in every difficulty, while a pessimist sees difficulty in every opportunity”. Therefore, the optimistic psychological profile is determinant for the success of an entrepreneur.

In our view, the portrait of a successful entrepreneur comprises a series of defining qualities, illustrated in Figure 1.

Figure 1: Defining qualities of the entrepreneur



Source: Authors' own research.

The functionality and performance obtained by organizations are decisively conditioned by managers and leaders. They design development strategies, the management system and the organizational culture, thus generating effectiveness, efficiency and sustainability. Managers are people who hold management positions and, by virtue of their tasks, competencies and responsibilities, adopt decisions and initiate actions that influence the activity and the behavior of other people in the organization (Nicolescu and Verboncu, 2008).

Managers and leaders have a key role to play in the management of organizations. The management process contains three main phases: forecasting, operational and final measurement and interpretation of results.

The first phase, in which a forecasting management and leadership is manifested, involves setting the objectives, identifying the resources and defining strategic options through which the objectives can be achieved, given the resources of the organization. The operational phase of the management process, in which an operative management and leadership is carried out, includes four steps:

- determination and delimitation of activities;
- distribution of activities on organizational subunits;
- coordination organizational processes and activities;
- involvement of human resources in processes and activities.

The third phase, the measurement and interpretation of results, in which the management and leadership are post-operative, essentially consists of:

- control of processes and activities;
- assessing the performance by comparison with the level of forecast objectives;
- identifying the causes of the deviations;
- initiating corrective measures to improve processes and activities in the next managerial cycle.

The main qualities of a manager are highlighted suggestively in Figure 2.

Figure 2: Defining qualities of the manager



Source: Authors' own research.

Leaders, along with managers, have a key role to play in the sustainable development of organizations.

Max Landsberg, who has gained international recognition as an authority in coaching and professional development, finds that the essence of leadership is the ability to create a vision, motivation and momentum in a group of people. Therefore, the leaders of organizations have to create and maintain this triad (Landsberg, 2008).

Vision is a positive image of what the organization could become and it shows, at the same time, the path that it has to follow in order to achieve the objectives arising from the mission and, implicitly, the desired performance. The leader has to crystallize a vision that is also shared by the members of the organization. For this purpose, it is important for the leaders to be creative, innovative and to translate their ideas into exciting, logical and achievable images and actions.

Motivation is an essential component of leadership. It is important that the managers and leaders of organizations take into account aspects such as customizing motivational elements, ensuring a stable balance relationship between tasks, competences and responsibilities, so that the employees successfully carry out the objectives incumbent upon them, combining adequately the mater

ial rewards with the moral and spiritual rewards, and also granting such rewards in a progressive system, so as to maintain an organizational climate conducive to the achievement of operational excellence.

The momentum necessary for the implementation of organizational development projects is another important component of leadership. A leader has to be able to convey his vision to others, to be a good communicator and to convince the human resources that his proposals are viable and can improve the processes and activities of the organization.

John Adair believes that the main qualities of a leader are enthusiasm, integrity, warmth, courage, critical judgment and toughness, but doubled by correctness (Adair, 2007). The leader should be enthusiastic to instill enthusiasm in others. In this sense, an aphorism belonging to Ralph Waldo Emerson, American poet and essayist, is quite suggestive: "Nothing great was ever achieved without enthusiasm."

### 3. Research methodology

To achieve the objectives of this paper we used the quantitative research method. The review of the specialized literature was based on consulting representative titles, books and articles from the area of the approached issue, respectively from fields such as economy, management, entrepreneurship and leadership. The documentation was made within the "Carol I" Central University Library of Bucharest, by consulting studies and research from international databases such as Ebsco, ProQuest, Emerald Insight, Springer and Wiley Online Library.

The information taken from these studies and researches have been processed, analyzed, structured and systematized to provide an integrated perspective on issues related to entrepreneurs, managers and leaders, highlighting similarities, differences and areas of interference between them.



#### 4. Results and discussion

The same person who works in an organization can combine the qualities of entrepreneur, manager and leader alike, in different proportions. The share of these qualities is important, as it recommends a person for one of the three categories (Burduş, 2007).

Organizations are born as a result of entrepreneurial actions. Once created, these organizations need managers to lead them and inspirational leaders to support the managers. The main connection point between the entrepreneurship, managerial and leadership activities is, in our opinion, the change.

Change is the very essence of business development (Clarke, 2002). The famous American professor Peter F. Drucker, dubbed "the father of modern management", found that the entrepreneur is a person who constantly seeks the change. Management, as a vector for the competitiveness of organizations in an ever more dynamic competitive environment, has to be proactive, flexible and change-oriented. Finally, the work of leadership is centered on the initiation, development and implementation of organizational change projects.

Another area of interference between entrepreneurs, managers and leaders is the exercise of the five managerial functions of an organization, namely forecasting, organizing, coordinating, training and control-evaluation. Managers, par excellence, perform these functions that essentially define the management of an organization. The organizational theory and practice have shown, over time, that entrepreneurs and leaders also perform managerial functions, but in a significantly different way. Thus, in exercising the forecasting function, which is considered the most important managerial function of an organization, entrepreneurs and leaders anticipate the evolution of variables in the business environment with the help of personal qualities (intuition, flair, observation, talent, etc.), while managers make more use of the arsenal of methods, techniques and procedures learned and operationalized over time (Burduş, 2007).

The essential quality of a manager is to build a team of collaborators as well prepared as possible. Managers' competence, decisive for the success of organizations, has been addressed from a triple perspective:

- formal competence (defined by formal limits among which the manager can act to achieve the objectives, tasks and responsibilities set out in the job description of the position that he occupies);
- professional competence (according to his training, knowledge and experience accumulated over time in his professional activity);
- managerial competence (is reflected by his managerial knowledge and abilities).

Leaders' competence is defined by the first two categories mentioned above, namely formal and professional. In addition, leaders have charisma, which gives them a certain authority over the other members of the organization. Therefore, the leaders, by their double competence - formal and professional - and charisma, succeed in mobilizing the groups of human resources of the organizations, obtaining their support in the various actions that they initiate.

There are also managers-leaders, but these situations are rarely encountered in organizations. It is an ideal situation for a manager to be a leader, at the same time. The manager-leader capitalizes, on the one hand, the competence trinomial (formal, professional and managerial) and



also has the charisma, which is the key to obtain the adhesion of the members of the organization for the proposed development projects.

As regards the dilemma whether “the managers and leaders are born or formed”, we find that the managers and leaders are people who have certain native qualities (intelligence, intuition, talent, communication skills, etc.), yet this arsenal of qualities should be supplemented by continuous training. For example, communication, which is essential in management and leadership activities, also has an important native component related to personality, but it has to be amplified by training, organizational situations and contexts. Consequently, the native potential of managers and leaders, their vocation, are important, but they have to be cultivated permanently so as to finally obtain the desired results.

## 5. Conclusions

The entrepreneur is one of the main actors of the economy with competitive market as he creates new organizations and develops existing organizations. The starting point of the entrepreneurial action is the business idea, which the entrepreneur puts into practice by detecting and capitalizing an opportunity existing on the market, making use of a set of resources.

Management entails mainly a strategic and integrated vision on the future of the organization, the establishment of realistic goals, the efficient allocation of resources for development, the organization, coordination and evaluation of processes, and also the involvement of the human resources in organizational activities in order to obtain sustainable competitive advantages.

A leader has to be able to convey his vision to others, to be a good communicator and to convince the human resources that his proposals are viable and can improve the processes and activities of the organization. Leadership takes into account the human dimension of management, in the involvement process of the human resources by the leader.

Organizations are born as a result of entrepreneurial actions. Once created, these organizations need managers to lead them and inspirational leaders to support the managers. The main connection point between the entrepreneurship, managerial and leadership activities is, in our opinion, the change.

Managers and leaders must initiate and coordinate processes of change in organizations. In many companies, the change is not regarded as a natural process of organizational and individual development, but as an event which must occur at a time, under the pressure of influential factors from the business environment. We consider that managers and leaders must have strategic vision and develop a proactive attitude as regards the organizational change projects.

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## Leadership: an overview

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**Abstract:** Leadership is as old as human civilization. The field of leadership has burgeoned since its emergence in the last century. Leadership has become a fast-growing topic of interest for both scholars and practitioners from all over the world. On the one hand, leadership is a widespread research area. On the other hand, leadership is one of the oldest practices in human history. The aims of the paper are to define the concept of leadership from a multiple perspective and to present its main characteristics. The paper demonstrates that leadership represents a complex, context-based, multifaceted, dynamic, and even an elusive concept as there is no universal definition of leadership. Also, the paper illustrates some of the main characteristics of leadership by taking into account various perspectives, theories, and paradigms.

**Keywords:** leadership, leadership-as-practice, leader, paradigm, theory

**JEL Classification:** M1, M19

## 1. Introduction

Leadership is as old as human civilization. The early written principles of leadership can be found in the Ancient Egyptian hieroglyphs for leadership, leader and follower, and Instruction of Ptah-Hotep, followed by the Chinese works of Confucius and Lao-tzu and the classical Greek and Roman writers, such as Plato and Marcus Aurelius (Bass and Bass, 2009). However, the beliefs about the concept of leadership have changed over the time.

The field of leadership has burgeoned since its emergence in the last century. Leadership has become a fast-growing topic of interest for both scholars and practitioners from all over the world. On the one hand, leadership is a widespread research area. In the beginning, the study of leadership was performed mostly from a historical and military perspective (Yukl, 2013). Later, other perspectives on leadership, such as the sociological or psychological ones, were added. Numerous studies already published are dealing with the “never-ending task of identifying identities or practices related to successful leadership” (Crevani, Lindgren and Packendorff, 2010, p.77) as leadership is seen as “a solution for most of the problems of organizations everywhere” (Palestini, 2009, p.1).

On the other hand, leadership is one of the oldest practices in human history. Based on practice, the leadership-as-practice approach recognizes the importance of “everyday activity, performances, and interactions, that is the doings of leadership” (Crevani and Endrissat, 2016, p.31). Leadership-as-practice orients people to “what is internalized, improvised and unselfconscious” (Carroll, et al., 2008, p.374) and is “less about what one person thinks or does and more about what people may accomplish together” (Raelin, 2016b, p.3). Thus, the practice of leadership is intrinsically linked with its context (Raelin, 2016a). In this respect, the business world provides many valuable cases related to the practice of leadership.

The aims of the paper are to define the concept of leadership from a multiple perspective and to present its main characteristics. The structure of the paper is as follows: the second section reviews the literature. The research methodology is illustrated in the third section of the paper. The fourth section presents the results. Paper ends with conclusions.

## 2. Literature review

Without any doubt leadership constitutes one of the most studied topics of our time (Tourish, 2008). As a science, art and practice, leadership has gained the attention of numerous researchers and practitioners worldwide. During the time, leadership has constituted a topic of interest and, therefore, has been studied in several ways from different views and in various contexts (Toma, Gradinaru and Zainea, 2020). As a consequence, the leadership literature has become one of the largest in the business domain.

Leadership represents a challenging but elusive and even enigmatic concept. This is why it has remained a difficult to define concept. Thus, leadership has many definitions and means something different for so many people around the globe. Without an agreed-upon definition, leadership is:

- „a process of facilitating the goal achievement of an individual or of a group in a particular situation” (Keating, 1982, p.16).

- „an interaction between two or more members of a group that often involves structuring or restructuring of the situation and the perceptions and expectations of the members” (Bass, 1990, p.19-20).
- „the art of mobilizing others to want to struggle for shared aspirations” (Kouzes and Posner, 1995, p.30).
- „a way of thinking and a way of acting...an attitude, a mind-set” (Koestenbaum, 2002, p.23).
- „an art, something to be learned over time...is more tribal than scientific, more a weaving of relationships than an amassing of information” (De Pree, 2004, p.3).
- „concerned with direction-setting, with novelty and is essentially linked to change, movement and persuasion” (Grint, 2005, p.15).
- „a process whereby an individual influences a group of individuals to achieve a common goal” (Northouse, 2010, p.3).
- „showing the way and helping or inducing others to pursue it. This entails envisioning a desirable future, promoting a clear purpose or mission, supportive values and intelligent strategies, and empowering and engaging all those concerned” (Gill, 2011, p.9).
- „strategic, focused on vision, and involves a strong element of building trust and emotional engagement with ‘followers’ ” (Carmichael, et al., 2011, p.2).
- „about giving direction, about guiding others, and about providing solutions to common problems” (Helms, 2012, p.3).
- „looking beyond the everyday management of people to creating a vision for the collective, developing strategy, inspiring and motivating, and making key decisions” (Riggio, 2017, p.277).
- „all about getting people to work together to make things happen that might not otherwise occur or to prevent things from happening that would ordinarily take place” (Rosenbach, Taylor and Youndt, 2018, p.2).
- „an influencing process occurring both directly and indirectly among others within formal employment relations” (Bratton, 2020, p.16).
- „about achieving influence, not securing compliance” (Haslam, Reicher and Platow, 2020, p.xvi).

Although that defining leadership represents a rather relatively recent academic endeavour „definitions proliferate, and leadership remains an enigma” (Fairholm and Fairholm, 2009, p.5) and is full of different paradoxes (Bolden, Witzel and Linacre, 2016). This is the result of the fact that there is no universally agreed definition of the leadership concept as there is “no one-dimensional view of leadership” (Gosling, et al., 2012, p.xiv).

### 3. Research methodology

In order to attain the objectives of the paper the authors used a research methodology based on collecting, analysing, and synthesizing quantitative information from numerous secondary sources of data through desk research. The authors identified and gathered information

from articles and books found in electronic databases (e.g., SAGE Journals) and at the Central University Library Carol I of Bucharest.

#### 4. Results and discussion

Starting from the definitions above presented within the literature review, several main characteristics of leadership can be revealed. First, there is no universal definition of leadership as there are many approaches to leadership that lead to various understandings of the concept. In other words, leadership is a term that “has come to mean all things to all people” (Rost, 1991, p.7). For example, the leadership-as-practice approach considers leadership as appearing as a practice whereas the trait approach puts accent on the leader. Leadership-as-practice is mainly concerned with “where, how, and why leadership work is being organized and accomplished” (Raelin, 2011, p.196).

Second, some definitions consider leadership as a behaviour (Richards and Engle, 1986) or an interaction between traits (Bogardus, 1934), others as a process (Barker, 2001), influence (MacArthur, 2004), power (Janda, 1960) or an ability (Robbins, 1998). By reviewing the leadership theories Northouse (2013) identified the following four common themes:

1. Leadership constitutes a process.
2. Leadership involves influence.
3. Leadership appears in a group context.
4. Leadership implies goals attainment.

Therefore, the development of leadership theory represents the output of a long and significant effort emerging from a multidisciplinary perspective (Goethals and Sorenson, 2006).

Third, four main leadership paradigms have emerged during the time: classical, transactional, visionary, organic (Table 1). They range from the Classical view on leader's dominance to the Organic view on de-emphasis on formal leadership.

*Table 1: Leadership paradigms*

Leadership characteristic	Classical	Transactional	Visionary	Organic
Major era	Antiquity- 1970s	1970s- mid-1980s	Mid-1980s- 2000	Beyond 2000
Basis of leadership	Leadership dominance through respect and/or power to command and control.	Interpersonal influence over and consideration of followers. Creating appropriate environments.	Emotion- leader inspires followers.	Mutual sense-making within the group. Leaders may emerge rather than be formally appointed.
Source of follower commitment	Fear or respect of leader. Obtaining rewards or avoiding punishment.	Negotiated rewards, agreements and expectations.	Sharing the vision; leader charisma may be involved; individualized consideration.	Buy in to the group's shared values and processes; self-determination.
Vision	Leader's vision is unnecessary for follower compliance.	Vision is not necessary, and may not ever be articulated.	Vision is central. Followers may contribute to leader's vision.	Vision emerges from the group; vision is a strong cultural element.

Source: Avery, 2004, p.19.

As leadership has to be seen in the context of its period of time it is important to note that a plethora of factors (e.g., economic, political, technological) has had a major impact on its meaning. During its formal academic existence, five principal evolutionary stages have been identified. They range from underlying the personal traits of leaders to emphasizing the way leaders work with and relate to other people (Table 2).

*Table 2: The evolutionary stages of leadership*

No.	Theory	Focus
1	The trait theory: who the leader is	<ul style="list-style-type: none"> <li>to identify the personal qualities and traits that distinguished leaders from followers</li> </ul>
2	The behavioural approach: what the leader does	<ul style="list-style-type: none"> <li>to show how leaders behave in relation to influence their followers</li> </ul>
3	The situational and contingency approaches: where leadership takes place	<ul style="list-style-type: none"> <li>to emphasize the importance of various variables such as the levels of subordinate competence and confidence in the tasks they were performing</li> </ul>
4	The charismatic-inspirational models-heroin leadership	<ul style="list-style-type: none"> <li>to present the charismatic leaders who possess certain personality characteristics and act in ways that result in trust, obedience, identification with them</li> </ul>
5	The post-heroic models of leadership	<ul style="list-style-type: none"> <li>to emphasize the ethical behaviours of leaders</li> </ul>

Source: Fairholm and Fairholm, 2009, pp.7-13; Skipton, et al., 2013, pp.17-25.

Fourth, leadership as a human phenomenon occurs at multiple levels as follows: one-to-one relationships, group level, organizational level, etc. (Humphrey, 2014). It means that leadership is contextually defined. For example, organizational leadership involves “processes and proximal outcomes (such as worker commitment) that contribute to the development and achievement of organizational purpose” and is “inherently bounded by system characteristics and dynamics” (Zaccaro and Klimoski, 2001, p.6). It implies the examination of three interconnected factors: leader, followers and context (Bratton, 2020- Figure 1). In this respect, a leader is “one or more people who selects, equips, trains, and influences one or more follower(s) who have diverse gifts, abilities, and skills and focuses the follower(s) to the organization’s mission and objectives causing the follower(s) to willingly and enthusiastically expend spiritual, emotional, and physical energy in a concerted coordinated effort to achieve the organizational mission and objectives” (Winston and Patterson, 2006, p.7). Thus, the role of leader is fundamental in attaining organizational aims. This is why a good leader should possess particular traits such as integrity, charisma, intelligence, honesty, sound reasoning, commitment, etc. (Marinescu, Toma and Saseanu, 2011; Toma and Marinescu, 2013; Saseanu, Toma and Marinescu, 2014; Toma, Marinescu and Constantin, 2016; Toma, et al., 2019). It is said that leadership effectiveness depends upon the following two factors: “1. the extent to which people follow and give legitimacy (this can be termed internal validation), 2. the extent to which the unit or organization succeeds and survives (this may be termed external validation)” (Storey, 2004, p.16). The context refers to external factors, the so-called STEPLE factors (social, technology, economic, political, legal, ecological).



Figure 1: Leadership as an interconnected process



Source: Bratton, 2020, p.5.

Fifth, a set of dualities lies at the heart of research on leadership as follows: “(1) the duality between the leader’s role in producing superior performance or results and the leader’s role in making meaning; (2) the duality between the leader as a special person (with a unique personality and character traits, emphasized by disciplines such as history, psychology and psychoanalysis) and leadership as a social role (defined as an influence relationship between the leader and society, emphasized in fields such as sociology, political science, and economics); (3) the duality between leadership as being universal (there’s something in common that units leaders across all situations and contexts) and leadership being particular (each person must lead differently depending on his or her own identity and that of the situation); (4) the duality between the leader’s ability to exercise agency (the power, influence, will, and ability to do, to act, to change) and the leader’s need to attend to constraints (such as the organization’s history, myriad demands, and constituencies); and (5) the duality between thinking on leader development in terms that emphasize leader’s capacity for thinking and doing (which puts an emphasis on various competencies) to becoming and being (which puts an emphasis on an evolving identity)” (Nohria and Kurana, 2010, p.7).

Sixth, leadership and management are different concepts in spite of the fact that sometimes they are used interchangeably. Leaders have a vision of what has to be achieved, communicate it to people, inspire and motivate them to attain the goals. Managers have to ensure the needed resources in order to obtain the best results. Leaders align organization whereas managers organize and staff (Kotterman, 2006).

## Conclusions

Since the last century the literature related to the concept of leadership have expanded exponentially. During the time, leadership has become a topic of interest for many researchers and practitioners worldwide.




The paper presents an overview on leadership. It demonstrates that leadership represents a complex, context-based, multifaceted, dynamic, and even an elusive concept as there is no universal definition of leadership. Also, the paper illustrates some of the main characteristics of leadership by taking into account various perspectives, theories, and paradigms. Further researches may identify other characteristics of leadership and deepen the analysis of their interrelationship.

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# Sustainable tourism as an essential factor of economic growth and local development in the sustainable economy

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**Abstract:** The sustainable management in the field of the tourism is important because this sector is one of the main sectors which contributes to the economic growth. The purpose of this research is to illustrate the evolution and the positive and negative impact of the tourism on the national economies in Romania, in the European Union and worldwide, related with the environmental, social and cultural aspects. The role of the national States is very important, in order to improve institutions, regulations and financing, to encourage the private economic entities, depending on the national specific, which requires specific economic policy instruments. The quantitative and especially the qualitative methods aim to highlight the importance of the sustainable tourism and of the sustainable management in the tourism sector for a green economy, considering the changes in the economic behavior.

**Keywords:** sustainable management, sustainable tourism, green hotels, energy consumption.

**JEL Classification:** A13, D12, D63, E61, F63, G18, J21, L83, Z32

## 1. Introduction

Tourism is an important activity because it represents over 10% of total investments in national economies as a world average, an important role being played by the foreign direct investments. The tourism creates income and the income multiplier demonstrates that the amounts obtained directly from tourism are indirectly contributing to the increase of the activities when it is invested in other local activities. In 2020, in the OECD countries, the average contribution of the tourism sector to the GDP was 4.1% and 5.9% to the total employment. In the European Union countries, the share of the tourism in the national GDP was about 10-15%. In 2019, in Romania, the contribution of the tourism to the national GDP was increasing, but it was below the European Union average, being almost 3%.

The income created by the tourism sector stimulates the whole local economy and contributes to the increase of the general welfare and to reduce the poverty. The effect that has the income obtained from tourism is different from one country to another, or from one area to another, depending on the structure of the economic activity and of the behavior of economic subjects who obtain these gains as a result of the tourist activity. The economic subjects can be the households or the hotel owners. Also, tourism is an important sector that determines the growth of the job market, not only directly in tourism (where the largest share have women and young people, who work in small companies), but also indirect jobs, related on the activities of the sustainable, green tourism.

Tour operators must take care of the continuous improvement of water consumption, of the reduction of energy consumption and of the use of renewable energy, of a better land use, of waste reduction, they must protect all the natural resources and the biodiversity, the traditions and culture of the places where there is tourism, to protect the local communities, and the cultural-economic benefits must always be compared with the socio-cultural costs. Tourism operators must prove seriousness, flexibility, communication, cooperation, use of appropriate staff, well trained for this activity and motivated.

Currently the tourism contributes with a significant share to the greenhouse gas emissions, the largest contribution coming from the energy consumption during travel and accommodation. A large part of the energy consumption is currently produced on the basis of the fossil fuels. The energy consumption is expected to increase 2 or 3 times in the next 20 years, given the growing trend in the number of domestic and international tourists. Water consumption in tourism is also more than 50% related to the accommodation activity.

Waste issues concern both the strategies to minimize their production and the possibilities for their processing given that some of them are discharged into nearby waters. The waste problem is greater for American areas than for European ones and the quantity of waste is higher for the tourists who are visiting the relatives and friends than for those who practice the business tourism.

Currently there are areas where tourism affects the traditional way of living, creates cultural issues that are amplified by environmental issues and creates animosity between the locals and the tourists. Green tourism is the tourism that can be maintained over time without affecting the social, economic, cultural and environmental fields. It is different from the ecotourism because

the ecotourism mainly refers to the environmental protection. Green tourism takes into consideration the aspects related to the demand of tourism, the expectations of tourists, but also to the supply of tourism. It is predicted that in 2050 tourism will contribute to the global GDP three times more than at present.

Greening of tourism involves both the development of the private sector, which is predominant in this branch and the strategic planning carried out by the local and the national authorities, improving funding issues, given the very high risks in this area, as well as incentives and aids provided by the State.

Considering the fact that Europe is the world's leading tourist destination, the European Union has emphasized the importance of the tourism in job creation and also the importance of public-private collaboration. Between 2001 and 2014, the European Commission published 7 communications on policy guidelines in tourism, including the EDEN initiative and CALYPSO initiative. In 2009, the NECSTouR platform - an open network of European tourism regions - was created for the exchange of information and innovative solutions in the issues related to the competitive and sustainable tourism. In Romania, concerns in the field of ecotourism were noticed only after the year 2000, which aim to capitalize the natural resources, the ethnographic potential and the traditional crafts.

## 2. Literature Review

John Swarbrooke, points out in his book "Sustainable Tourism Management" the origins of the sustainable tourism: „ ...we have seen government bodies trying to make use of tourism to help achieve the sustainable development of geographical areas. For example:

- In the USA and the UK, tourism has been used to try to regenerate old industrial cities and provide them with a new direction for the future. This has been seen particularly in places such as Baltimore and Liverpool, for example.
- The use of rural-based tourism to help achieve the sustainability of the rural economies and societies, and compensate for the decline of traditional agriculture. This phenomenon has been seen clearly in the countryside of France, Italy, Spain and Portugal.
- Attempts have been made to utilize tourism as a way to facilitate the sustainable development of economies in the developing world, particularly where as a possible mechanism for achieving the same end are limited. This is illustrated by Cuba, where tourism is being used as an alternative now that Cuba no longer receives aid from the former Soviet Union, and impoverished countries like \Vietnam, Cambodia and Laos." (Swarbrooke, 1999)

According to Wikipedia, "Sustainable tourism is the tourism that takes full account of its current and future economic, social and environmental impact, addressing the needs of visitors, industry, the environment and host communities.... Sustainable tourists can reduce the impact of tourism in several ways: by learning about the culture, politics and economy of the visited communities, by anticipating and respecting the local cultures, expectations and assumptions, by supporting the integrity of local cultures, by fostering cultural heritage and traditional values of local goods and participation in small and local businesses conserving resources, by looking

for businesses that are environmentally conscious and by using the least possible amount of non-renewable resources" (Wikipedia, 2020)

The "Agenda for a sustainable and competitive European tourism" (Commission of the European Communities, 2007) focuses on the growth and on the diversification of the jobs in the tourism sector, considering the fact that twice as many young people work in tourism as in any other economic sector. Other objectives were - reducing the greenhouse gas emissions, adapting the destinations to the tourism demand, increasing the quality of services, giving more importance to the environment, to the employees and to the local communities. The main actions at the European Union level, established by this document were - mobilizing the actors to obtain and share knowledge, promoting the destinations of excellence, mobilizing the community financial instruments, integrating the sustainability and the competitiveness into the common policies.

In the document *Europa, The World Favorite Tourist Destination - A New Policy Framework For European Tourism* (2010) are highlighted as key actions for the tourism development - stimulating the competitiveness of the tourism sector in Europe, promoting the development of sustainable tourism, strengthening Europe's image and vision set of sustainable and quality destinations, capitalizing at maximum the most of EU financial policies and instruments for the tourism development.

In "An Economic Growth and Job Creation In Maritime And Coastal Tourism" (2014) there are emphasized the important role of the maritime and coastal tourism, which provides over 3 million jobs, generates an important total value added and represents 1/3 of the maritime economy. The potential of this sector is important.

"In Romania, ecotourism programs have a relatively recent history. The first such tourist packages were created around 2000, when a series of initiatives appeared in the area of national or natural parks (Retezat, Piatra Craiului, Vânători Neamț, Apuseni). Remarkable is the project *Carnivore Mari din Carpați* (Large Carnivores from Carpathians), which managed to start ecotourism programs focused on the attractiveness of the population of wolves, bears and lynx in the northern area of Piatra Craiului. These ecotourism programs as well as the development of related services and infrastructure have managed to grow in popularity and be recognized by the UNWTO as one of the best ecotourism destinations in the world in 2002." (Guvernul Romaniei, 2016)

Although concerns for the development of sustainable tourism are relatively recent, after the 1980s, only a few years later, the first criticisms of the theoretical and practical achievements in the field of sustainable tourism appeared. In this respect, "planning, management and policy approaches which fail to operationalise sustainable tourism in a manner consistent with the general aims and requirements of sustainable development. In particular, it is suggested that the tourism-centric paradigm encourages inappropriate and inconsistent consideration of the scope and geographical scale of tourism's resource base, whilst also failing to adequately account for the intersectoral context of tourism development In order to re-engage sustainable tourism development" (Hunter, 1995)

The author Zhenhua Liu highlights, in a critical sense, some aspects that are not sufficiently taken into account in the analyze of the sustainable tourism "it explores six issues that are often

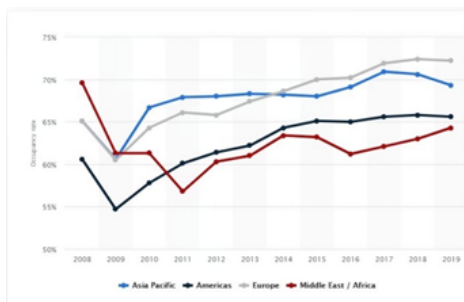


overlooked but must be addressed in research: the role of tourism demand, the nature of tourism resources, the imperative of intra-generational equity, the role of tourism in promoting sociocultural progress, the measurement of sustainability, and forms of sustainable development. Finally, in order to transform research on sustainable tourism to a more scientific level, a systems perspective and an interdisciplinary approach are indispensable." (Zhenhua, 2003)

### 3. Characteristics of the existing tourism sector

In 2019, FDI investment in the tourism sector were 61.746 billion \$, which represents an increase of about 10% over the previous year and a peak after 2003. Most projects based on foreign direct investment in the last 5 years or carried out in the UK, USA, Mexico, Spain, Germany, China, Japan, India, UAE, France, which created a number of 470.542 jobs. The previous trend was confirmed by the fact that the largest number of international tourist arrivals was in Europe (Tourism Investment, 2020) (Figure 1). The largest investment in tourism, in 2019, were made in the US (209 billion \$), followed by China (169.9 billion \$) and India (51.6 billion \$) (Statista a, 2020). The direct contribution of travel and tourism to GDP in 2018 was 2760,65 billion \$ and the total contribution of travel and tourism to GDP in 2018 was 8810,96 billion \$. (Statista b, 2020).

Figure 1: Occupancy rate of the hotel industry worldwide from 2008 to 2019, by region



Source: <https://www.statista.com/statistics/266741/occupancy-rate-of-hotels-worldwide-by-region/>

One of the main problems in the sector of tourism at present is the high and increasing energy consumption. This consumption is due to the increase in the number of domestic and international number of tourists worldwide, to the tourists' preference for shorter trips, which determines a higher number of trips and to the preference of the tourists for the types of transport that are very energy consuming, such as planes, cars and buses. It is known that the highest energy consumption in tourism comes from the tourist's transport (which produces about three quarters of the direct greenhouse gas emissions) and also from accommodation (almost a quarter of the direct greenhouse gas emissions), where energy is used for heating or cooling, for lighting, for food preparation and for ensuring some sports activities. To the direct greenhouse gas emissions must be added the indirect emissions, related to the activities of the travel agencies and to the transport of the necessary products used in hotels.



Water consumption in tourism is a smaller problem than the energy consumption. It is a problem especially for the countries with water shortages, and where tourism is the main consumer of water. Out of the total water consumption in tourism, over 50% comes from accommodation, being related to what tourists use in their rooms, but also for swimming pools, spas or garden irrigation.

Another important issue related to the tourism sector is waste management, given that, on average, in Europe, a tourist generates 1 kg of waste per day and in the United States 2 kg per day.

Tourism causes also problems related to the biodiversity loss in those areas where tourism activities affect the environment and also problems related to the cultural heritage, by the fact that the entry of tourists in certain areas affects the traditional way of life of the local population. There are problems related to the interaction between tourists and local communities, which may have very different conceptions and ways of behaving. The intensification of trade in certain areas can have as a negative effect the excessive exploitation of some resources, but it also has a positive effect by increasing the employment of the local population and by increasing the local incomes.

Concerns about improving tourism activity are reflected in the European Union since 2000 by numerous communications on policy guidelines in tourism. Between 2001 and 2014, the Commission published 7 communications on tourism policy guidelines, the most important being - The Agenda for Sustainable and Competitive European Tourism (2007) - Europe, the world's favorite tourist destination - A new policy framework for European tourism (2010) - Implement and develop the common visa policy to stimulate economic growth in the EU (2012) - A European strategy for boosting growth and creating jobs in maritime and coastal tourism (2014). In EU countries, "In 2018, half of the total nights spent by non-residents in the EU were spent in Spain, Italy and France. Spain was the most common outbound tourism destination in the EU for people travelling outside their country, with 301 million nights spent in tourist accommodation, or 23 % of the EU total. 64 % of EU residents made at least one personal tourism trip in 2018." (Eurostat a, 2020)

The top three countries in the top destinations for European tourists are Spain Italy and France and the favorite months are June, July and August (Eurostat b, 2020).

#### **4. The transition to a sustainable tourism**

In the literature are defined two different types of tourism - ecotourism and sustainable tourism. Ecotourism is mainly focused on the environmental issues, while sustainable tourism (Figure 2) seeks to solve both environmental and economic, social and cultural problems.

Figure 2: Sustainable tourism



Source: <https://ecobnb.com/blog/2016/12/why-sustainable-tourism-important/>

“Sustainable tourism aspires to be more energy efficient and climate sound (e.g. by using renewable energy); consume less water; minimise waste; conserve biodiversity, cultural heritage and traditional values; support intercultural understanding and tolerance; generate local income and integrate local communities with a view to improving livelihoods and reducing poverty.” (UNEP/GRID, 2011)

An important role in the transition to a more sustainable tourism is played by both consumers, who must change their consumption patterns and by tourism companies, that need to adapt their offer so that it becomes more sustainable. The State needs to support this area in which financing risks are very high so that private investors are more difficult to get involved. It is necessary to promote corporate social responsibility (CSR) and to create more institutions at national and international level to promote the sustainable tourism. Numerous studies revealed that CSR is strongly linked with sustainable business models, sustainability and sustainable economy (Toma, 2006; Toma and Hudea, 2012; Toma, Marinescu and Gradinaru, 2016).

“After six decades of consistent growth, tourism is an important driver of economic growth. On average, the sector directly contributes 4,4% of GDP, 6,9% of employment and 21,5% of service exports in OECD countries. It is of vital economic, social and cultural importance, and offers real prospects for sustainable and inclusive development; however, integrated and forward-looking policies are needed to ensure this growth better delivers benefits for people, places and businesses.” (OECD, 2020)

More than 80% of the amounts spent by international tourists in OECD countries is reflected in the increase of the domestic added value of the respective countries, the contribution of tourism being higher than that of exports. In OECD, “countries are putting in place measures to co-ordinate better across and between different levels of government, improve destination

management, modernise regulations, adopt digital solutions and work more closely with the private sector and civil society when designing policies.” (OECD, 2020)

The tourism sector is constantly developing, it being a very important resource in achieving the economic growth. Tourism is expected to have a higher global average growth rate than industry. Most of this growth will be in the developing countries, where not very well-known tourist destinations until now have a growing interest and where there is the potential to create a sustainable tourism from the beginning.

Even starting 10 years ago, about 10% of the total worldwide tourists clearly specified that they want to live in environmentally friendly hotels, and over a third of them said they would be willing to pay more to live in such conditions, being interested in preserving the biodiversity and in the cultural and the social aspects of the destination localities. For example, the Accor hotel chain has invested in photovoltaic panels, gray water reuse, rainwater recovery, energy efficiency, sustainable construction, renovation projects. 80% of hotels are small and medium-sized businesses worldwide and 90% in Europe.

Tourism contributes to the local development and to poverty reduction. “1. Its ability to harness biodiversity, landscape and cultural heritage available in developing countries can play a major role in enhancing incomes and employment opportunities; 2. Tourism is a relatively labour-intensive sector traditionally dominated by micro and small enterprises with activities particularly suited for women and disadvantaged groups; 3. A tourism product is a combination of different activities and inputs produced by many sectors: enhanced spending by tourists can benefit agriculture, handicrafts, transport, water and waste management, energy efficiency and other services; 4. As tourism development at destinations requires investment in facilities such as roads, water supply, and energy, it improves the basic common infrastructure facilities required for development of other sectors and improvement of quality of life (Bata 2010); and 5. Tourism employs more women and young people than most other sectors: providing economic benefits and independence to women is very important in terms of supporting child development and breaking the cycle of poverty.” (UNEP/GRID, 2011)

Figure 3: Towards smarter tourism development



Source: <https://www.oecd.org/cfe/tourism/2020-Tourism-Brochure.pdf>

Most of the SMEs companies operating in the field of tourism are preparing to move to a more digital activity, although they face a series of difficulties or barriers.

“⊙Inadequate access to digital infrastructure (e.g. high speed internet access and widely available Wi-Fi).

⊙ Insufficient resources including access to finance, networks, skills and time.

⊙A mismatch between current and anticipated sector skills requirements (e.g. digital/IT, data analytics and administration/finance), while tourism businesses may not have the financial or management capacity to employ tech experts or invest in workforce training.

⊙A focus on business survival makes them risk averse to business innovation coupled with uncertainty around the benefits of digitalisation, especially when considering the costs.” (OECD, 2020)

Tour operators must take care of the continuous improvement of water consumption, of the reduction of energy consumption and of the use of renewable energy, of a better land use, of waste reduction, they must protect all the natural resources and the biodiversity, the traditions and culture of the places where there is tourism, to protect the local communities, and the cultural-economic benefits must always be compared with the socio-cultural costs. Tourism operators must prove seriousness, flexibility, communication, cooperation, use of appropriate staff, well trained for this activity and motivated. An important way to encourage green tourism is to promote sustainable hotels. Some of the most important examples in the world are

⊙ Portola Hotel & Spa at Monterey Bay – the hotel significantly reduced the effects of the energy consumption on the environment through the use of solar energy, being among the first large hotels in California, USA that received a LEED certification as a green building. The hotel has important achievements also in the field of reducing the water consumption, by using low flow batteries. The water consumption has been reduced also for washing linen, by using special detergents, and hot water production is done taking into account the principle of energy cogeneration. The green areas around the hotel are decorated with many plants, irrigated by a controlled drip system.

*Figure 4: Portola Hotel & Spa at Monterey Bay*



Source: <https://www.portolahotel.com/gallery>

Figure 5: Portola Hotel & Spa at Monterey Bay



Source: <https://www.portolahotel.com/gallery>

© In California there is also a smaller green hotel, Bardessono, which is among the very few hotels that has a LEED Platinum certification, its green building being made of non-toxic materials, which does not cause allergies, and the wood used is recovered. The necessary energy is provided mostly by the solar energy, and the geothermal energy is used to heat the rooms and to produce the necessary hot water. The organic materials are the ones from which the linens are made, as well as the detergents. The property's restaurant is based on farm products.

Figure 6: Bardessono Hotel and Spa



Source: <https://www.bardessono.com/gallery.htm>

In Europe, there are considered to be 11 Friendly Hotels in different European states. One of them is in Sweden, Tree Hotel, whose construction is based on an idea from a traditional Swedish film. The rooms have been built in such a way as to have as little impact on the environment as possible, using durable materials. The energy used for heating is hydroelectric, and the surrounding landscape is unique.

Figure 7: Treehotel, Harads, Suedia



Source: <https://travelator.ro/cele-mai-ciudate-hoteluri-din-europa/>

Green Solution House in Denmark is a beach hotel that addresses sustainability in many ways. The energy used comes from renewable sources, the wastewater is treated, and the building materials used are recycled, including those used in the restaurant. The menu is based on local organic products.

Figure 8: Green Solution House in Denmark



Source: [https://www.google.com/search?q=Green+Solution+House%2C+Denmark&tbm=isch&ved=2ahUKEwjH46-Azq\\_tAhUQyKQKHVZVCB4Q2-cCegQIABAA&oq=Green+Solution+House%2C+Denmark&gs\\_lcp=CgNpbWcQAzIECAAQE1CUzBdYIMwXYOTSf2gAcAB4AIABkwGIAZMBkgEDMC4xmAEAoAEBqgELZ3dzLXdpei1pbWfAAQE&sclient=img&ei=R7LHX4ckkJCTBdaqofAB&bih=920&biw=1795&rlz=1C1JZAP\\_enRO912RO912#imgsrc=LDU7gUQtS1UZzM](https://www.google.com/search?q=Green+Solution+House%2C+Denmark&tbm=isch&ved=2ahUKEwjH46-Azq_tAhUQyKQKHVZVCB4Q2-cCegQIABAA&oq=Green+Solution+House%2C+Denmark&gs_lcp=CgNpbWcQAzIECAAQE1CUzBdYIMwXYOTSf2gAcAB4AIABkwGIAZMBkgEDMC4xmAEAoAEBqgELZ3dzLXdpei1pbWfAAQE&sclient=img&ei=R7LHX4ckkJCTBdaqofAB&bih=920&biw=1795&rlz=1C1JZAP_enRO912RO912#imgsrc=LDU7gUQtS1UZzM)

Forsthofalm is one of the most green hotels in Austria, being built entirely of wood (mostly pine wood, considered optimal for sleep quality), without metals or glue. The landscape is special, especially in the winter, and the menu consists of regional, organic foods.



Figure 9: Holzhotel Forsthofalm, Austria



Source: [https://www.google.com/search?q=Forsthofalm%2C+Austria&tbm=isch&ved=2ahUKEwiJwoS6z6\\_tAh-WVq6QKH43ICH4Q2-cCegQIABAA&oeq=Forsthofalm%2C+Austria&gs\\_lcp=CgNpbWcQA1DHgBRYx4AUYM6DFGgAcAB4AlABiwGIAYsBkgEDMC4xmAEAoAEBqgELZ3dzLXdpei1pbWfAAQE&sclient=img&ei=zLPHX4msFpXXkgWikaPwBw&bih=920&biw=1795&rlz=1C1JZAP\\_enRO912RO912#imgrc=uhJQiUSonLYzhM](https://www.google.com/search?q=Forsthofalm%2C+Austria&tbm=isch&ved=2ahUKEwiJwoS6z6_tAh-WVq6QKH43ICH4Q2-cCegQIABAA&oeq=Forsthofalm%2C+Austria&gs_lcp=CgNpbWcQA1DHgBRYx4AUYM6DFGgAcAB4AlABiwGIAYsBkgEDMC4xmAEAoAEBqgELZ3dzLXdpei1pbWfAAQE&sclient=img&ei=zLPHX4msFpXXkgWikaPwBw&bih=920&biw=1795&rlz=1C1JZAP_enRO912RO912#imgrc=uhJQiUSonLYzhM)

The other environmentally friendly hotels in Europe are located in Switzerland, Iceland, Greece, Slovenia, Italy, Germany, United Kingdom, The Netherlands.

In Romania, in 2009, Vega Hotel became the first hotel in our country certified Eco-Hotel Management System by Tuv-Rheinland Romania. "The Eco-Hotel principles govern all the processes carried out within the Vega Hotel:

- control of energy consumption: starting with March 2013, the Vega hotel in Mamaia became the first hotel consuming renewable energy in Romania (energy from renewable sources - wind energy, hydropower and solar energy, which significantly supports the reduction of CO2 emissions ). The supplier of this type of energy is the company UGM Energy.

- control of water and paper consumption and control of waste and hazardous substances management

- purchase and use of biodegradable products." (Hotel Vega, 2020)

Figure 10: Vega Hotel, Romania



Source: <https://hotelvega.ro>

The risks and the costs being very high in the tourist activity, require a greater involvement of the State. Tourism is a labor-intensive activity, its cost having a large share in the total cost,

as well as payments for the land used, as competition for the land use in tourist areas causes an increase of its price. In addition to the costs of these factors of production, the taxes paid for them have a large share in the total payments. The cost of capital can also be high when the locations are at a greater distance. In tourism, more than in many other activities, there is a high degree of uncertainty about the possible future gains from the current investments, and planning projects and approvals also have a higher cost as they have a longer duration.

Sustainable tourism requires the increase of the institutional capacities to be able to integrate multiple economic policies that must take into account both the natural characteristics and the human and cultural ones, must improve the standards and issue new rules, so that make those that are planning the tourist destinations to know better the advantages that a green tourism can bring and be able to benefit from a qualified staff in this field.

The state should be more concerned with allocating better the resources used in tourism, with providing benefits and compensations to those who practice the green tourism and also with investing in protected areas cultural assets, in reducing energy and water consumption.

One of the most important issues today is the wider digitization of tourism operators, especially of the SMEs. For this, the role of the State is particularly important because it must ensure the adequate infrastructure for digital transmissions and must also promote the modernization of urban and regional planning, must modernize the legislative framework so that SMEs are supported to introduce in their activity the innovations, in order to develop more sustainable tourist destinations.

In EU, "Five projects are being co-financed under the 2019 call for proposal 'Boosting sustainable tourism development and capacity of tourism SMEs through transnational cooperation and knowledge transfer' (COS-TOURCOOP-2019-3-01). These projects aim at

- 1.reinforcing transnational and cross-border cooperation to enable sustainable growth of tourism SMEs
- 2.cultivating SMEs' capacities and skills for solutions for more sustainable management and tourism sustainability in general
- 3.encouraging innovative solutions for sustainable tourism through cross-sectoral cooperation." (European Commission a, 2020)

The competitiveness and sustainability of tourism is a constant concern of the European Commission. It is considered necessary to improve the quality of tourist destinations, which depend on natural and cultural resources, on how the tourism can be integrated into the local communities, being necessary to combine the economic criteria with the social, cultural and environmental criteria, respecting the ethical principles of organization and progress. "Major challenges for sustainable tourism include:

- preserving natural and cultural resources;
- limiting negative impacts at tourist destinations, including the use of natural resources and waste production;
- promoting the wellbeing of the local community;
- reducing the seasonality of demand;
- limiting the environmental impact of tourism-related transport;



- making tourism accessible to all;
- improving the quality of tourism jobs.” (European Commission b, 2020)

Must be mentioned also the EDEN initiative, that promotes European tourist destinations of excellence and those that are on the rise less known, but which respect the principles of sustainability and the CALYPSO initiative, which promotes social tourism for the elderly, young people without opportunities, families with special needs, people with reduced mobility. In 2009, NECSTouR was created - an open network of European tourism regions - a platform for the exchange of information and innovative solutions in issues related to competitive and sustainable tourism.

In Romania, “natural and semi-natural ecosystems represent approximately 47% of the country’s surface ..... Along with the natural setting, the Romanian space also benefits from an ethnographic and folkloric potential of great originality and authenticity. This spiritual dowry represented by popular architectural values, popular installations and techniques, traditional crafts, folklore and ancestral customs, popular holidays, etc., to which are added numerous historical and art monuments, archaeological remains, museums, happily amplifies and completes the ecotourism potential of country. ....Currently, the main areas in Romania where ecotourism programs are concentrated are:

- Danube Delta and Dobrogea Biosphere Reserve (bird watching, boating);
- Piatra Craiului National Park and its surroundings (programs based especially on the observation of large carnivores (wolf, bear, lynx), but also of specific plant species, equestrian tourism, cycling, hiking, etc.);
- Apuseni Mountains Natural Park (speotourism, themed hiking, cultural programs, cross-country skiing, equestrian tourism, cycling, etc.);
- other protected natural areas, some with the status of national or natural park: Retezat National Park - Dinosaurs Geopark Țara Hațegului, Măcinului Mountains National Park, Rodnei Mountains National Park, Călimani National Park, Lunca Mureșului Natural Park, Vânători Neamț Natural Park, with programs focused on: equestrian tourism, cycling, themed hiking, cross-country skiing, observation of flora and fauna, cultural programs, canoe expeditions, etc. ;
- Transylvania - Târnava Mare area (discovery of Saxon and Szekler culture, horseback riding, themed hiking, etc.)
- Maramureș (nature discovery programs, horseback riding, cycling, discovering occupations and traditional architecture, etc.);
- Bucovina (nature observation programs, themed hiking combined with cultural tourism and monastic tourism).“

At the level of ecotourism Romanian destinations the aim is to practice a sustainable management, to have a responsible marketing image, a real support for the local communities, to inform the tourists about this and to prove a permanent concern for the protection of the nature and the biodiversity.

“The priority in the Romanian tourism development policy is the transition from “passive tourism” (waiting) to “active tourism” (anticipating the wishes and needs of the tourist), with priority treatment of the following aspects:

- Active promotion of Romania as a tourist destination, relying on modern technologies; "Designing a positive image of Romania, [...] developing domestic tourism by diversifying the offer and specific marketing activities, including by creating a unitary system of online tourism information and statistics"

- Organized development of the general infrastructure and of the specific, tourist one;
- Invigorating spa tourism in the context of promoting health tourism (restoration, modernization or recreation of specific infrastructure and associated services);

- Development of thematic tourism (wine road, berry road, mineral springs, monasteries and many others) and events, commercial approaches (animation, derived products, etc.);

- Using the opportunities related to the proximity between the country's capital, the Black Sea and the Carpathian chain, an asset in the development of tourism as a branch of the national economy;

- Identifying priority tourist areas at national level and concentrating investments in these areas."

## 5. Research methodology

The quantitative data were mainly collected from the publication issued by at the international and European Union level on the sustainable tourism and green hotels and also issued by the competent authorities in Romania. The results of the quantitative and qualitative research were taken especially from the documents issued by the European Union regarding the sustainable tourism and the green hotels, regarding the reduction of the energy and water consumption, the reduction of generated waste, using recycling materials, renewable energies. The qualitative research from this paper aim to highlight the importance of the sustainable tourism not only for the environment, the biodiversity, but also for the society and for the preservation of traditions and culture and the main international economic policies that may transform the unsustainable tourism to a sustainable one.

## 6. Results and discussion

The results of the research carried out in this paper are highlighting that the tourism sector is an important activity because it represents over 10% of total investments in national economies as a world average and it has a significant share of the national and global GDP and it contributes with a significant share at the global number of jobs, most of them being green jobs.

This sector has both an economic impact, through the costs and the benefits involved, but also an impact on other fields, such as environmental, social and cultural.

The main problems from the tourism sector at present are related to the greenhouse gas emissions, to the energy and water consumption, as well as issues related to the waste management and preserving biodiversity and culture of the local communities. The main negative effect of tourism on the environment is related to greenhouse gas emissions from tourist transport and accommodation, given that much of the energy currently used in this sector is based on fossil fuels.

The increase of this sector in recent years is based on the increase in the number of the tourist

population, domestically and internationally, as well as on the tendency to reduce the duration of the trip which means that several trips can be made in the same unit of time.

In order to make the transition to the sustainable transport, all the elements related to this sector must be improved.

„Major challenges for sustainable tourism include:

- preserving natural and cultural resources;
- limiting negative impacts at tourist destinations, including the use of natural resources and waste production;
- promoting the wellbeing of the local community;
- reducing the seasonality of demand;
- limiting the environmental impact of tourism-related transport;
- making tourism accessible to all;
- improving the quality of tourism jobs.” (European Commission b, 2020)

The States must support the development of the sustainable tourism by providing aid or subsidies, through tax cuts and by other measures that facilitate the financing process and that encourage the participation of the private sector, by creating the necessary institutions so that all economic agents involved are sensitized.

At the EU level, concern for sustainable tourism or manifested in recent decades by publishing numerous work agendas. In recent years were promoted some transnational projects meant to encourage the sustainable tourism, the small and medium-sized enterprises in this field, the sustainable management through a cross-sectoral cooperation.

In Romania, after the 2000s, most projects in the field of sustainable tourism are in the field of ecotourism.

The transition to the green tourism is relatively slow, having both positive and negative aspects. The biggest possibilities for creating a green, sustainable tourism are in the developing countries because they do not have to change some existing models, but they have to provide directly a green tourism.

## 7. Conclusions

This article supports the most of the previous researches.

Nowadays, the tourism sector is an important sector because it represents over 10% of total investments in national economies, an important role being played by the foreign direct investments. The tourism creates income and the income multiplier demonstrates that the amounts obtained directly from tourism are indirectly contributing to the increase of the activities when it is invested in other local activities, contributing to the increase of the general welfare and to reduce the poverty. The effect that has the income obtained from tourism is different, depending on the structure of the economic activity and of the behavior of economic subjects who obtain these gains as a result of the tourist activity.

Tourism is an important sector that determines the growth of the job market, not only in tourism (where the largest share have women and young people, who work in small companies), but also indirect jobs, related on the activities of the sustainable, green tourism.

The sustainable management in the field of transport is an essential condition for the current economic development because it is....”more energy efficient and climate sound (e.g. by using

renewable energy); consume less water; minimise waste; conserve biodiversity, cultural heritage and traditional values; support intercultural understanding and tolerance; generate local income and integrate local communities with a view to improving livelihoods and reducing poverty.” (OECD, 2020)

As the costs in the tourism sector are very high due to high expenditures and taxes on land and labor, and the risks of obtaining future incomes are also very high, the State needs to be more involved in promoting the sustainable tourism.

Sustainable tourism means increasing the institutional capacities in order to integrate multiple economic policies, taking into consideration both the natural, human and cultural characteristics. The standards must be improved, so that make those that are planning the tourist destinations know better the advantages that a green tourism can bring.

The state should be more concerned with allocating better the resources used in tourism, with providing benefits and compensations to those who practice the green tourism and also with investing in protected areas cultural assets, in reducing energy and water consumption.

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# Analysis of the use of e-commerce platforms by students during the sars-cov-2 pandemic crisis

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**Abstract:** The objective considered in the research undertaken by the authors is the investigation of students from the Faculty of Public Administration and Business at the University of Bucharest on how to use e-commerce platforms during the SARS-CoV-2 pandemic crisis in 2020 from Romania. The analytical approaches focused on the frequency of use of e-commerce platforms during this period, but also compared to previous periods, the ways of accessing these platforms, the categories of products and services purchased, the typology of problems encountered in accessing and using, as well as methods of payment and delivery most frequently used.

The analysis was based on a research methodology, both quantitative and qualitative, on the conditions and factors that determined the developments regarding the use of e-commerce platforms by students. The quantitative research was based on the analysis of a questionnaire containing 19 questions on the characteristics and determinants of the use of e-commerce platforms in 2020 by students. Qualitative research explores how the determinants of e-commerce use are placed in the context of the SARS-COV-2 pandemic crisis in Romania.

The results of the present study highlight the leading factors that influence students' purchases based on accessing e-commerce platforms, as well as the elements that could determine the increase in traffic within them.

**Keywords:** E-commerce, SARS-COV-2 pandemic, Social Media, security of payments, delivery methods

**JEL:** C15, C51, D91, F14, M2

## 1. Introduction

The e-commerce services offered through dedicated platforms have experienced a really significant increase in Romania in 2020, a fact noted by some studies and market research. This growth has been based on the increasing access of users to Internet services, the diversification and improvement of these services, as well as technological developments in terms of facilities offered through these e-commerce platforms and the increasing use of online payments. In this sense, among the reports regarding the evolutions on this market is the study prepared by iSense Solutions for GpeC: "The number of online shoppers increased by 8% in 2020 compared to 2019, and the number of people who pay online with the card increased by 14% this year compared to 2019" (GpeC, 2020a). Also, the Romanian Association of Online Stores (ARMO) shows that "the Romanian e-commerce sector will reach EUR 5.5 billion in 2020, an increase of 30% over the previous year. The COVID-19 pandemic has accelerated the development of e-commerce on the local market, which is expected to grow by 30% compared to 2019" (GpeC, 2020b).

According to GPeC in 2019 online shopping exceeded 4.3 billion lei with 20% more than 2018. It seems that Romanian citizens spend around 12 million euro per day. Only 23% of citizens made online shopping in 2019. 71.9% of online shopping were made using a smartphone and 29.1% using a desktop. In 2019, 56% of internet users made online shopping at least once a month. The reason people choose to buy online are low prices and quick delivery. It seems that in 2019 the most visited online market was emag.ro. About the payment mode, 80% people prefer to pay cash at the delivery and only 20% to pay using a credit card (GPeC, 2020c).

In this respect, both authors find as an important subject of research the evolution of e-commerce services in Romania. The objective considered in this research undertaken by the authors is the investigation of students from the Faculty of Public Administration and Business at the University of Bucharest on how to use e-commerce platforms during the SARS-CoV-2 pandemic crisis in 2020 from Romania. The analytical approaches focused on the frequency of use of e-commerce platforms during this period, but also compared to previous periods, the ways of accessing these platforms, the categories of products and services purchased, the typology of problems encountered in accessing and using, as well as methods of payment and delivery most frequently used.

The analysis was based on a research methodology, both quantitative and qualitative, on the conditions and factors that determined the developments regarding the use of e-commerce platforms by students.

## 2. Literature review

A paper of Popescu et al. shows "the advantages and disadvantages of e-commerce, the electronic commerce versus traditional commerce as well as the electronic commerce in Romania" (Popescu, et al., 2015) underlying as advantages the following: "the availability of virtual stores: program almost non-stop, every day of the year; the possibility of free decision; the possibility of purchasing products even outside the borders of the country the buyer; communication, particularly internationally, low cost" (Popescu et al., 2015).



Veith and Dogaru express in their research that “the crisis caused by the COVID-19 virus has affected both the economic environment and the daily lives of all citizens” but also that “digitization has been accelerated in all environments and areas of activity”. As a result, “the change was not only related to the use of new technology and remote work, but also to the transition in a time of crisis, dominated by panic and concern for citizens for their own safety and health” (Veith and Dogaru, 2020).

Leoveanu analyze in his work how “tendencies of using mobile banking and mobile payments applications by consumers” in e-commerce led to a substantial development of e-commerce businesses “from the point of view of the increase of sales and profit, also showing an increase in the number of mobile payments companies in the conditions of diversification of their services” (Leoveanu, 2019).

Another investigation undertaken by Singh & Rishi reveals that “the Internet is changing the method of selling and purchasing items. Nowadays online trading replaces offline trading” and that “the items offered by the online system can influence the nature of buying customers” (Singh and Rishi, 2020).

According to Rizan, Febrilia and Wibowo “in the e-commerce industry, good quality and perception could positively influence customers but not necessarily form loyalty. For that, e-commerce players should pay a lot of attention on customer satisfaction” (Rizan, et al., 2020).

The research of Li, Zeng and Ye “reveal how e-commerce affects the income gap between urban and rural areas in the context of developing world” and that “the government should create more favorable conditions for the popularization of rural e-commerce and advance the turning point” (Li, Zeng and Ye, 2020).

Goldman et al. scrutinize in their paper “the impact of strategic orientations on the use of digital marketing tactics and [...] on the international business performance of small electronic retailers (e-retailers) in cross-border electronic commerce (e-commerce)”. In this regard, they acknowledge that “growth orientation only has a positive effect on e-retailers from developed e-commerce markets, while customer orientation negatively affects e-retailers from emerging e-commerce markets. The differences between e-retailers from developed and emerging e-commerce markets are prominent and show that markets should not be considered as either uniform or generalizable” (Goldman et al., 2020).

The paper of Shirazi et al. “finds a mediating effect of trust in developing satisfaction. Social media activities facilitate a positive level of trust that in turn creates a satisfying environment for customers in social commerce” (Shirazi et al., 2020).

Liu, Fei and Yan shows in their analyze “the growing importance of sellers’ response to online customer reviews, especially to negative reviews, has a significant positive effect on its sales” underlying that “e-commerce platform companies should provide the necessary technical support to accelerate the formation of online communities” (Liu, Fei and Yan, 2020).

In this respect, linked to the previous research appears to be the paper of Liu, Wang and Jia that endeavor “to make good use of the massive amount of online user comment data to explore and analyze the dimensions of customer-perceived value and the importance of each dimension” (Liu, Wang and Jia, 2020).



### 3. Research methodology

The analysis was based on a research methodology, both quantitative and qualitative, on the conditions and factors that determined the developments regarding the use of e-commerce platforms by students. The quantitative research was based on the analysis of a questionnaire containing 19 questions on the characteristics and determinants of the use of e-commerce platforms in 2020 by students. The questionnaire was divided in two parts – a part with demographic questions and a part with questions about using e-commerce.

In order to perform the statistical analysis, a series of working hypotheses were taken into account.

H1: More people will prefer online shopping after COVID-19 than before

H2: There is a significant difference between people that use a smartphone and people that use other devices for  
online shopping

H3: There is a direct influence of delivery method on use of e-commerce

H4: There is a direct influence of payment method on use of e-commerce

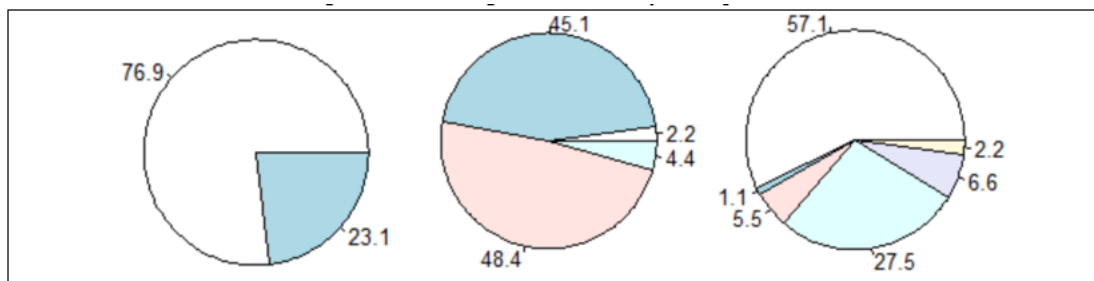
Qualitative research explores how the determinants of e-commerce use are placed in the context of the SARS-COV-2 pandemic crisis in Romania.

### 4. Results and discussions

#### Subjects

The sample is formed by 150 respondents, students at Faculty of Business and Administration, University of Bucharest. 76.9% of respondents were female and 23.1% were male.

Figure 1: Gender, age and residence of the respondents

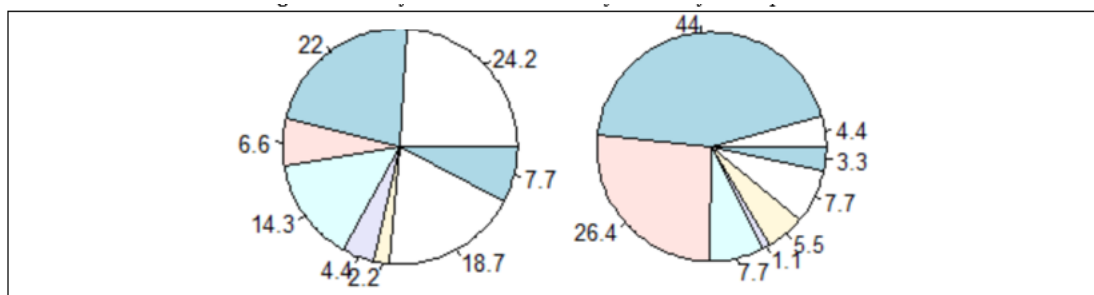


Source: authors' analysis and calculations

From all respondents, 45.1% were 18-20 years old, 48.4% were 21-24 years old, 4.4% were 25-30 years old and 2.2% were more than 30 years old.

A percentage of 57.1% has the residence in Bucharest, 40.7% in the rest of the country (Crisana, Moldova, Muntenia, Oltenia) and 2.2% are from Moldavia.

Figure 2: Size of income and sources of income of the respondents



Source: authors' analysis and calculations

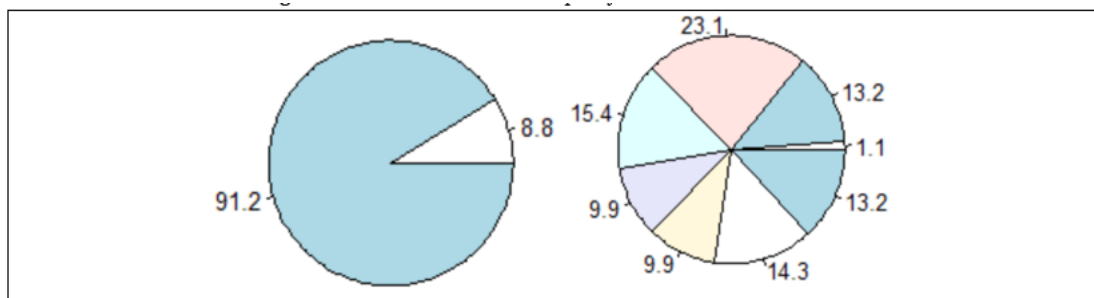
Most respondents have an income situated between 0 and 500 lei (24.2% from total) and between 1001 and 1500 lei (22% from total); 18.7% have an income between 501 and 1000 lei, 14.3% between 2001 and 2500 lei, 7.7% more than 3500 lei, 6.6% between 1501 and 2000 lei, 4.4% between 2501 and 3000 lei and 2.2% between 3001 and 3500 lei. About the source of income, 44% said parents give them money, 26.4% have them own salary, 8.8% said salary and parents, 7.7% scholarship and parents, 5.5% scholarship, 3.3% scholarship and salary and 4.4% have other sources of income.

Most students have a smartphone, 97.8%. All of them use social media networks.

## Findings

### Descriptive statistics

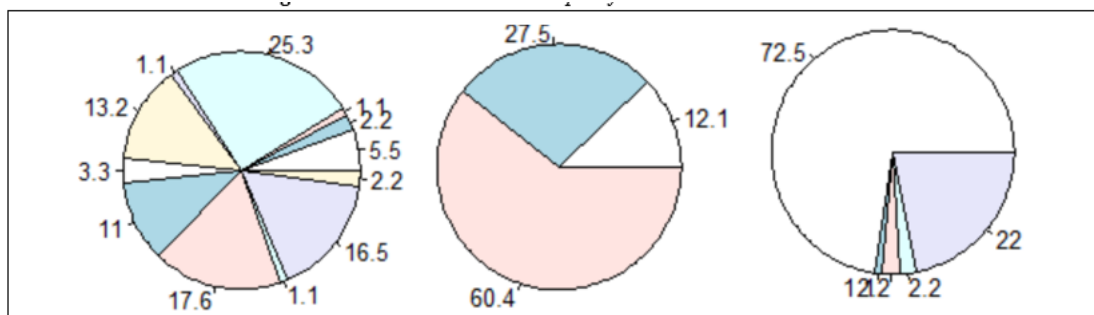
Figure 3: E-commerce use and impact factors on e-commerce use



Source: authors' analysis and calculations

A percentage of 91.2% from respondents use e-commerce. About the factors that determine them to use e-commerce, 23.1% said saving time, 15.4% said lack of congestion (queues), 14.3% said is ease to compare products and prices, 13.2% said the variety of products or the multitude of choices, 13.2% said because is available 24/7, 9.9% said it has better prices than in traditional trade, 9.9% said the transaction is very fast and 1.1% said the procurement is confidential.

Figure 4: E-commerce use and impact factors on e-commerce use



Source: authors' analysis and calculations

About the frequencies of buying using e-commerce, 25.3% said they use it once a month, 17.6% once a few months, 16.5% twice a month, 13.2% once a week, 11% once at 2-3 days, 5.5% daily, 3.3% once a year, 2.2% daily or once a few months and 2.2% twice or once a month.

60.4% of respondents said they use e-commerce more after than before COVID-19, 27.5% said they don't use more e-commerce and 12.1% said they don't know if they use e-commerce more or not than before COVID-19.

About the money they spend on buying using e-commerce platforms, 72.5% said they spend between 0 and 500 lei, 22% said they spend between 501 and 1000 lei, 2.2% said they spend between 1501 and 2000 lei, 2.2% said they spend between 1001 and 1500 lei and 1.1% said they spend between 0 and 500 lei or between 501 and 1000 lei.

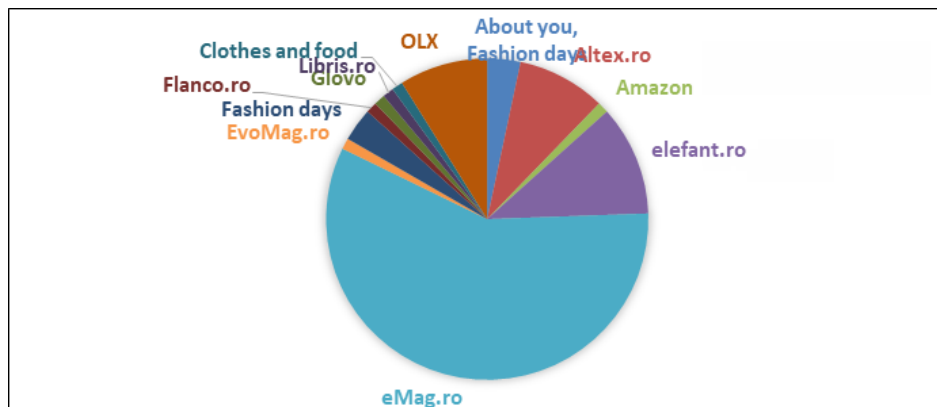
The majority, 59.3%, said they use a smartphone to make an online order, 16.5% said they used the laptop or notebook, 15.4% said they used them tablet/ iPad or iPhone and 8.8% used them desktop.

Online platform most visited by respondents was emag.ro (57.1%), followed by elefant.ro (11%), Altex.ro (8.8%), OLX (8.8%), Fashion days (3.3%), About you (3.3%) and next Amazon, EvoMag.ro, Flanco.ro, Glovo, Libris and clothes store (1.1% each).

About the payment mode, 44% used a credit card, 41.8% paid at delivery, 14.3% credit card and payment at delivery.

The delivery method preferred by the respondents is courier delivery with a percent of 93.4%; the rest of 6.6% prefer to pick the products from showroom.

Figure 5: Use of E-commerce platforms



Source: authors' analysis and calculations

Most respondents (50.5%) buy clothes and accessories using e-commerce, followed by electronics (14.3%), products for beauty and personal care (9.9%), books (8.8%), food (8.8%), cars (3.3%) and IT products (3.3%).

A percentage of 62.6% of respondents said they didn't face with any problem; the rest of 37.4% said the products don't correspond with the description (17.6%), product and money return (11%), delivery (5.5%), credit card fraud (1.1%), payment problems (1.1%), technical problems with the demand (1.1%).

About the security problems, 48.4% said they are afraid of fraud, 20.9% named privacy risk, 6.6% named the difficulty of protecting intellectual property rights and 24.2% said they don't see any problems.

## Hypothesis testing

H1: More people will prefer online shopping after COVID-19 than before

From all respondents that didn't use e-commerce before COVID-19, 62.5% declared that they use e-commerce now. From all respondents that used e-commerce before COVID-19, 76% declared they use more often e-commerce now. We can say that COVID-19 had a positive impact on growing of e-commerce. The hypothesis is confirmed.

H2: There is a significant difference between people that use a smartphone and people that use other devices for online shopping

From all smartphone owners, 91.2% use e-commerce and from all owners of other devices, 91.3% use e-commerce. In our case we can say that young people use e-commerce regardless of device used. This hypothesis is not confirmed.

H3: There is a direct influence of delivery method on use of e-commerce

From all respondents that use e-commerce, 91.8% prefer courier delivery and 83.3% to pick up from showroom. This hypothesis is confirmed and we can say the variety of delivery methods

has a positive impact on using e-commerce.

H4: There is a direct influence of payment method on use of e-commerce

From all respondents that use e-commerce, 86.8% prefer paying using a credit card and 92.1% paying cash at delivery. We can say in this case the variety of payment methods have a positive influence on using e-commerce, so the hypothesis is confirmed.

## 5. Conclusions

The results of the present study highlight the leading factors that influence students' purchases based on accessing e-commerce platforms, as well as the elements that could determine the increase in traffic within them.

The questionnaire developed in our study allowed us to see that young people use e-commerce. The variety of methods of payment and delivery, the variety of products, the possibility to see reviews of the products and to compare prices determine people to use this kind of commerce. Even people are afraid of fraud, the variety of advantages of using e-commerce determine them to use in more and more often.

Pandemic COVID-19 kept us in the houses, stores have a special program, people are working from home and school is also online. In this context, more and more people prefer to buy online. The contact with other people is reduced so the risk of infection with COVID-19 is lower. In this context, as we can see in our study, young people also buy online. Even if the study developed by GPcC said that people prefer using smartphone to buy online, we can see in our study that the device used does not influence using e-commerce.

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# The importance of diversity management, creativity and innovation in creating a successful company

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**Abstract:** This conceptual and discursive paper argues that diversity is a recognizable source of creativity and innovation that can provide a basis for competitive advantage. On the other hand, diversity is also a cause of misunderstanding, suspicion and conflict in the workplace that can result in absenteeism, poor quality, low morale and loss of competitiveness. Firms seeking competitive advantage therefore face a paradoxical situation. If they embrace diversity, they risk workplace conflict, and if they avoid diversity, they risk loss of competitiveness. The advantages and disadvantages associated with workforce diversity put organizations in a position of managing a paradoxical situation. To give support to this assertion, the paper considers what is meant by diversity, how it is best managed, what its relationship with creativity and innovation might be and how the problems created by the management of diversity, creativity and innovation might be resolved.

**Keywords:** management, creativity, innovation, human resource

**JEL Classification:** M10, M12, M54

## **Introduction**

The paper examines the relationship between diversity, creativity, innovation and competitive advantage in firms that operate within a high-commitment context. High-commitment organizations are those with an approach to human resource management (HRM) that fosters and supports the creation and maintenance of an internal labour market and a high level skills base. Employees are managed by means of an outcome-driven rather than a process-driven approach. This approach, in turn, is founded on a reliance on employee skills and knowledge, rather than high levels of supervision to ensure required levels of quality and output (Bamberger and Meshoulam, 2000; Lepak and Snell, 1999).

Unfortunately, managers operating in a high-commitment context face a dilemma. They can either seek to harness diversity in order to promote creativity and innovation or they can ignore the diversity dimension, within the constraints of the law. If they are successful in embracing diversity, then organizational agility, founded upon creativity and innovation, can ensue (Cox and Blake, 1991) and business excellence can be achieved (Toma and Naruo, 2017; Toma and Marinescu, 2018; Tohanean and Toma, 2018). Organizations that adopt a high-commitment orientation are confronted by a number of challenges. Because their approach to HRM relies on low staff turnover and retention of scarce skills, they may find it difficult to create a diverse workforce, preferring as they do, the conflict-reducing influence of homogeneity.

While much of the argument presented here can be applied to all organizations, it is high-commitment organizations that are the paper's focus, because the issues raised are especially evident in these firms. The paper begins by defining diversity and diversity management. It then explores the genesis of diversity as a management concept, before going on to consider the complex interrelationship between diversity, creativity, innovation and competitive advantage, suggesting that creativity is a precondition for innovation, and that creativity and innovation are enhanced by the existence of diversity. This discussion leads to a consideration of the issue of managing diversity. Then HRM appropriate for diversity management is discussed. The final section makes the case for embracing diversity management sooner rather than later, particularly in high-commitment organizations.

## **Literature review**

### **Definitions of Diversity and Diversity Management**

For the purposes of this paper's argument, the term 'diversity' encompasses a range of differences in ethnicity/nationality, gender, function, ability, language, religion, lifestyle or tenure (Kossek and Lobel, 1996). Additionally, 'diversity' in the workplace includes more than employees' diverse demographic backgrounds, and takes in differences in culture and intellectual capability. It takes more than demographic or ethnic diversity to result in creativity that leads companies to perform better (Leonard and Swapp, 1999). The term 'diversity management' refers to the systematic and planned commitment on the part of organizations to recruit and retain employees with diverse backgrounds and abilities. It is an activity that is mainly to be found within the HRM training and development domains of organisations (Betters-Reed and Moore, 1992;



Thomas, 1992). In the context of this paper, diversity management is defined as the aggregate effect of HRM sub-systems, including recruitment, reward, performance appraisal, employee development and individual managerial behaviours in delivering competitive advantage through leadership and team work.

### **The Genesis of Diversity as a Management Concept**

It is worth noting that while the notion of managing diversity has evolved out of social policies designed to promote equality, and that while, historically, these policies in both the UK and the USA have been focused on delivering equality of access to opportunity for disadvantaged social groups, the approach and the agenda in each national context has been different. In the USA, policy has tended to be driven by a commitment to 'affirmative action'. In the UK, however, affirmative action has, to date, been perceived as positive discrimination, and has been effectively proscribed by law. To understand some of the dynamics that gave rise to this divergence, it is necessary to review the demographic patterns of the two countries. America was first alerted to impending changes in the demographic composition of its labour market in a report entitled *Workforce 2000* (Johnston and Packard, 1987). In the flurry of interest that followed, a range of data pointed to the extent to which the American economy was changing (Latimer, 1998; Watson, 1996). The United Kingdom is different. Whereas in America, ethnic minority populations accounted for 26% of the total, in the UK, it was 5.5%.

It is hardly surprising, therefore, that equality of opportunity was perceived as an issue of greater political urgency and social consequence in the USA. Opinion differs on why diversity management emerged in the way that it did. Kirton and Greene (2000) and Kossek and Lobel (1996) have suggested that the diversity paradigm evolved because it was perceived to be less threatening and controversial than affirmative action driven by notions of equality of opportunity. Writers like Yakura (1996) have asserted that diversity management was an attempt to enlist the support of disenchanted white males. Others, such as Prasad et al. (1997), have suggested that the diversity approach, with its emphasis on corporate initiative and human capital theories, resonated more harmoniously with American individualism than state intervention imposed through policies of equality of opportunity. Moreover, whilst the USA and the UK are in the vanguard when it comes to recognizing that diversity constitutes a major management challenge, commentators have noted that other Western economies are confronted by dramatic shifts in their demographic balance that will push the effective management of diversity up the management agenda. The United Nations projects that the European population could shrink by as much as 94 million or 13% by 2050 and that, amongst the G8, only the USA, Canada and the UK will have growing populations. By 2020, it is estimated that the world's population will consist of more than 1,000 million people aged 60 and older. Governmental and organizational responses to these challenges might include importing young skilled labour from those regions of the world that are well-endowed with skilled and educated young people, and the development of social policies and taxation regimes that encourage child-rearing and the retention of the skills of older workers for longer. Organizations with a high-commitment strategy and a largely homogeneous workforce may well find that low staff turnover fosters cultural inertia and inhibits the creation of diversity.

HRM sub-systems define the limits of managerial discretion in managing what can be termed the spectrum of diversity. It is the aggregate effect of the attitudes, skills and behaviours of individual managers that determines the extent to which organizations are able to sustain high commitment within a diverse workforce.

## Results and discussions

### **The Interrelationship of Diversity, Creativity, Innovation and Competitive Advantage**

The recognition of the relationships between diversity, creativity, innovation and competitive advantage has stimulated both academics and the business community to search for factors and situations that give rise to creativity in individuals, and for the catalysts of creativity in teams (West and Anderson, 1996). Creativity is a necessary precondition for successful innovation and management (Marinescu and Toma, 2017). King and Anderson (1995) highlighted the problematic nature of defining creativity. The growth of interest in the field has been accompanied by a proliferation of definitions that have polarized around four themes: the creative person, creative process, creative product and the creative environment (Isaksen, et al., 2000). It is difficult to separate process from product because products can be intangible, and processes often result in the creation of product. There is, however, considerable consensus around what constitutes a creative product. King and Anderson (1995) define its key characteristic as novelty, i.e. the conception must differ significantly from what has gone before. It should also be appropriate to the situation it was created to address, be public in its effect and deliver a perceived benefit. Competitive advantage is as much about incremental system and process innovation, therefore, as it is about radical product innovation. The link between innovation and competitive advantage has long been understood. Interest in the field was first given impetus by researchers like Abernathy and Utterback (1978). They demonstrated that industry outsiders usually adopted radical innovation as a strategy for overcoming barriers to entry. In so doing, they created a situation in which the dominance of particular players, either within an area of the industry or across the industry as whole, began to lose their hegemony because of an inability to innovate quickly enough to respond to the competitive challenge. In the ensuing confusion, many of the established players found themselves too psychologically and financially committed to the preservation of the status quo to embrace change. Whilst innovation in the West has tended to be defined in terms of breakthrough technologies and products, the kaizen philosophy encouraged Japanese manufacturers to think more broadly and to devise strategies for promoting involvement, not only across the organization, but also across the supply chain.

During the late 1980s and early 1990s, Western organizations came to recognize that industry leadership through radical innovation was being ceded to fast-followers, skilled in reverse engineering and cost reduction through process improvement. Their response was to promote greater involvement from their people through the application of HRM as a device for improving systems and driving down costs. At the same time, Hamel and Prahalad (1994) provided considerable impetus to the resource-based view of the firm by demonstrating that Japanese corporations sought to sustain their leadership position by forging and exploiting strategic alliances.

Both of these responses can be seen as strategic moves towards the management of diversity. In the case of the Western corporation, Japanese techniques for the management of functional diversity, such as quality function deployment, were embraced, whilst Japanese corporations used strategic alliances to infuse new ideas and know-how into their culturally homogeneous corporations. There is conflicting evidence as to the extent to which diversity can deliver competitive advantage. On the one hand, exponents of the information decision approach (for example, Cox and Blake, 1991; Iles and Hayers, 1997; Richard and Shelor, 2002) argue that when diversity is managed well, it can enhance creativity, resulting in increased commitment, job satisfaction and a better interface with the market place. In contrast, advocates of social identity theory (for example, Ely and Thomas, 2001; Ibaarra, 1993; Kanter, 1977; Tajfel, 1982) are more pessimistic. They argue that diversity damages cohesiveness, reduces communication and produces in-groups and out-groups. This results in discord, distrust, poor quality and lack of customer focus and market orientation. If innovation results in a product, system or process that is new to a context, and delivers a definable benefit to a social constituency, then the antecedent lies in the creativity of individuals, whether working independently or in teams. Cummings (1998) has shown that the delivery of a successful innovation involves three stages – conception (which includes creativity), successful development and successful application. The closer the concept comes to the market-place, however, the greater the number of people involved. This results in the emergence of two distinct types of challenge – technical and human. Technical problems require the creative energy of teams, whilst human problems arise because of the need to promote diffusion and buy-in to the new idea, initially across the organization and sometimes across the supply chain.

Diversity, combined with an understanding of individual strengths and weaknesses, and working relationships that are founded upon sensitivity and trust, have been shown to enhance creativity and problem-solving capability (Hennessey and Amabile, 1998). Indeed, Isaksen and Lauer (2002) identified key factors that contribute to creativity and provide a collaborative climate. These are trust, team spirit, unified commitment, principled leadership, an elevating goal, a results-driven structure, standards of excellence, participation in decision-making, external support and recognition, and an aptitude to adjust roles and behaviours to accommodate new emergent values. Employees either work in teams, defined by Katzenbach and Smith (1993) as ‘people with complementary skills who are committed to a common purpose, set of performance goals, and approach, for which they hold themselves mutually accountable’, or they work in groups. The latter are differentiated as ‘people working together who are not as coherent or purposive as team members’. Teams are composed of individuals who have the ability to recognize the personal strengths and limitations of their colleagues. They adjust their behaviours so as to respond to the needs of their peers. These patterns of mutual adjustment result in reduced levels of interpersonal tension and conflict. It falls to the HRM function to promote significant investment in developing managers and encouraging them to accept the emotional labour inherent in managing diversity within the organization (Ruscio, et al., 1995).

### **Managing Diversity**

The literature on diversity highlights a range of responses to the challenge of diversity management. Dass and Parker (1999) identified no fewer than twelve strategic responses to the

challenge of managing diversity. Moore (1999) reduced the number of behavioural stereotypes to four – the diversity hostile, the diversity blind, the diversity naïve and the diversity integrationist. Whilst the first three behavioural stereotypes fail to recognize that different management skill sets are required to respond effectively to different diversity challenges, the fourth stereotype is proactive in its approach. Moore's stereotypes recognize that neither functional nor cultural diversity automatically leads to positive or negative outcomes. However, different patterns of diversity present different managerial challenges, to which some organizations respond, whilst others do not. Thomas and Ely (1996) showed that cognitive and experiential diversity adds to the perspectives available to the organization and encourages clarification, organisation and combination of new approaches for the accomplishing of goals. Similarly, Donnellon (1993) and Tushman (1997) found that work units characterized by diversity have the capability to access broader networks of contacts. This enables them to acquire new information that informs decisions, increases commitment to choices and enhances responsiveness to environmental turbulence. Latimer (1998) argued that diversity in terms of ethnicity, age, gender, personality and educational background promotes creativity and problem-solving capability. He suggests that groups have been found to be less risk averse than an individual's 'risky shift'. Increased diversity leads to lower levels of risk aversion and better decision-making and problem-solving capability. This arises because diversity promotes a more robust critical evaluation of the first solution to receive substantial support. One of the objections to diversity is that it damages cohesiveness. Cohesiveness, however, makes groups vulnerable to 'group think'. Diversity acts as an impediment to this phenomenon. Conflict is perceived to damage cohesiveness; however, when it is effectively channelled, it can lead to improved creative problem-solving and decision-making, because the diversity of perspective generates more alternatives and greater critical evaluation. Results pointing to 'value in diversity' have been countered by theorists who have shown that heterogeneous groups experience more conflict, higher turnover, less social integration and more problems with communication than their homogeneous counterparts (Knight, et al., 1999; O'Reilly, et al, 1989; Williams and O'Reilly, 1998). Other studies have suggested lower levels of attachment to employing organizations on the part of individuals who perceive themselves to be different from their co-workers (Mighty, 1997; Tsui, et al., 1992). These studies give a clear indication of the nature of the challenge confronting those seeking to promote commitment amongst diverse work groups.

### **Appropriate HRM for Diversity Management**

High-commitment organizations will tend to prefer an outcome-driven approach to managing people. The required levels of quality and output are seen to result from employee skills and knowledge, rather than high levels of supervision. Suitable conditions to promote creativity and innovation in diverse contexts are associated with the management of work routines, and the creation of appropriate teams. Indeed, currently, an increasing amount of work within an organization is accomplished through groups or teams, rather than by individual action. When selecting individuals to join a team, it helps if managers not only consider functional competence, but also the preferences that people have for different types of work and different types of work context. The ways in which individuals like to work, and the activities within their job roles that give them greatest satisfaction, will shape the way in which they choose to discharge their responsibilities,

working individually or in teams. These manifestations of personal style are important in a team context. Individuals with similar styles may well establish trust early; their homogeneity of approach, however, may become a significant blind spot. In building a high performance team, there is not only a need to match functional competence and personality against the requirements of the job, there is also a need to produce a balance of work preferences, attitude to risk and an inclusive orientation to social identity. In highcommitment team contexts, a strong case can be made for blind selection to the shortlist stage, based on a minimum threshold of functional competence and the results of a range of personality and work preference measures that are blind to age, ethnicity and gender, and that are designed to ensure balance and diversity within the team. Garvin (1998) has shown how functional diversity gives rise to a potential conflict. He observed that those versed in a particular discipline or function, perceive and define quality in different ways. To those tasked with procurement of resources, quality is perceived to be value for money. Those involved in design see it as intangible and transcendent. Those working in production define it as conforming to requirements. Marketers suggest that it is relative perceived value, whilst sales people argue that quality is for the customer to define. Historically, these tensions produced compartmentalized management practices, because of an absence of tools to reconcile differences of perspective. Teams with diverse membership and a collectivist orientation are likely to have a deeper well of resource upon which to draw when generating ideas, combining them and subjecting them to critical evaluation. The likelihood of

adopting a sub-optimal trajectory, therefore is reduced, especially if the team's approach to systematizing creativity and problem solving is highly developed. Whilst early success and recognition help to cement a sense of identity and belonging, people and processes need to be supported by a set of HRM sub-systems that focus on constantly reinforcing these processes. The literature suggests that the greater the diversity, the greater the collectivist orientation needs to be. Systems like the Kaplan and Norton's balanced scorecard (1996) and 360-degree feedback, when combined with reward systems that empower managers to implement employee ideas on their own initiative, help create the supportive infrastructure necessary to deliver results.

### Conclusions

In the context of this paper, diversity management is defined as the aggregate effect of HRM sub-systems, including recruitment, reward, performance appraisal, employee development and individual managerial behaviours in delivering competitive advantage through leadership and teamwork. The combustible cocktail of creative tension that is inherent in diverse organizational contexts must be contained within a multilayered vessel. The outer layer must be composed of carefully crafted HRM sub-systems that are both vertically integrated with the business objectives and horizontally integrated one with another (Bamburger and Meshoulam, 2000). The inner layer consists of effective leadership, which can only be provided by suitably trained managers. They need to understand the challenges of diversity management, and to have the emotional intelligence and commitment necessary to

build a personal relationship with each individual, or group/team member. In support of the view that the existence of diversity in a firm can lead to competitive advantage, the paper considered questions such as 'What is meant by diversity?' 'How is it managed, especially from an HRM point of view?' 'What is its relationship with creativity and innovation?' It has been argued that embracing diversity management is a risky business. Organizations that embrace high-commitment HRM strategies do so because the systems and processes through which they add value are too complex for managers to control directly through supervision. Instead, they adopt an output orientation. This approach demands that they delegate authority to individuals and teams to make operational decisions. Organizations that adopt an output orientation need innovation and continuous improvement in both products and processes to support a strategy for delivering high-perceived value to the customer. Diversity facilitates the process when managed well.

Unfortunately, there is a paradox. Organizations with an internal orientation to the labour market measure the success of their approach to HRM through high retention rates, low employee voice and a willingness to go beyond contract. This militates against diversity, unless senior managers are highly diversity sensitive and are prepared to put in place HRM sub-systems that support diversity. Whilst the risks associated with strategies that embrace homogeneity and heterogeneity are different, this paper has questioned whether organizations seeking an innovation advantage really have a choice. This rather deterministic position is predicated on the view that the combination of demographic trends, legislative pressure and market forces in respect of competition for scarce skills will render the barriers to entry for minority groups more permeable. If this view is correct, then in the long term, the need to manage diversity will become unavoidable. In this event, organizations that have adopted high-commitment HR strategies will not be asking whether they should embrace diversity, but rather, how it can best be done. The challenge that confronts the pioneers is how to achieve the transition. What this paper has sought to show is that it is possible to capitalize on lessons already learned in managing functional diversity – although this is only one of the many types of diversity to be found within firms. We have seen that a number of tools already exist. These will require further development. Others must be added. The shift that has already taken place from the low trust, functionally divided organization to team-based, interdepartmental working that presaged the quality revolution, offers us a template for managing the transition. High-commitment organizations that start early can develop an advantage. If they are to succeed, they must demonstrate a commitment to deploying HRM strategies that are designed to foster trust and inclusiveness through effective leadership, on the one hand, with creativity and innovation techniques that capitalize on diversity to deliver an innovation advantage on the other. In this connection, the literature suggests that the old adage that there can be no gain without pain, is true. However, it is almost certainly better to experience growing pain, than the pain associated with loss of competitiveness and decline arising from an inability to adapt quickly enough to changing conditions. In short, in a high-commitment context, managers are caught between the devil and the deep blue sea.



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## Remanufactured products – study case of bucharest employees

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**Abstract:** *The current paper wants to showcase a study referring to the remanufactured products. In this study it is analyzed the concept of remanufactured products with a focus on consumers' perception over this concept. In the 4th chapter of the article I presented the main results of the questionnaire which was taken with more than 50 employees of a Romanian company with a focus on Tourism domain (for the purpose of this research, the name of the company shall remain anonymous). The questionnaire had 3 important sections through which I analyzed the market for remanufactured products and the willingness of different groups of people (mainly individuals with a low income) to purchase such goods.*

**Key words:** remanufactured products, sustainability, Pearson Chi-Square Tests

**JEL:** O14, L15, L63, F63, F64

## 1. Introduction

A major interest in the 1990s was represented by the activities of economic agents in relation to the environment (Seuring, et al., 2008). In the context of the supply chain, various measures have been taken to study environmental issues (Carter and Rogers, 2008; Hassini, et al., 2012; Seuring, 2013; Seuring and Müller, 2008; Srivastava, 2007). The concept of closed loop supply chain (CLSC) has been a major interest for both researchers and people specializing in the field (Guide and Van Wassenhove, 2009; Ilgin and Gupta, 2010; Pokharel and Mutha, 2009; Rubio, et al., 2008). Examining the CLSC concept is a challenge that must be researched and analyzed in its relations with the market and consumers - most of the issues analyzed in the literature have been addressed from the end-of-life (EOL) and end-of-use (EOU) product offer. Numerous research papers are focused on the flow of goods from the consumer back to the manufacturer or the recovery agent, for example, EOU collection, return, value recovery, 3-R (reduction, reuse, recycling), inventory management, etc. But there have been little studies in issues such as the marketing of recovered products, their acceptance by consumers, the existence of new markets for these products and how companies can promote these markets, what marketing strategies are best for this purpose or what type of consumer should be targeted.

This research paper aims to provide a contribution by analyzing the consumer behavior of a remanufactured product and their willingness to contribute with a positive impact on the environment by raising awareness of CLSC and educating them on these alternative products. To this end, a survey was conducted of potential consumers of a remanufactured product (laptops and mobile phones), the aim being to identify the key factors that "define" a profile for this type of consumer, from which companies can design and implement the most appropriate marketing strategies.

## 2. Literature review

The circular economy (EC) can be outlined as a concept whose implementation results in reduced consumption of raw materials, thinking and design of products so that they can be easily disassembled and reused after use (ecological design), extending the life of products by maintenance and repairs, the use of recyclable materials in products and the recovery of raw materials from the waste stream (van Buren, et al., 2016) with a special focus on urban and industrial waste, in order to achieve a better balance and harmony between economy, environment and society (Ghisellini, et al., 2016) and business excellence (Toma and Naruo, 2017; Toma and Marinescu, 2018; Tohanean and Toma, 2018). Remanufacturing and similar concepts are included in the broader topic of the circular economy, EC analyzing resource and waste flows within and across supply chains (Genovese, et al., 2017). The concept of remanufacturing represents a sustainable production strategy while impacting the environment at a minimum and can benefit different stakeholders. Numerous brands such as Apple, Boeing, Cisco, Caterpillar and others have successfully integrated remanufacturing into their operations and supply chain management (Krikke, et al., 2004; Ovchinnikov, et al., 2014; Qian, et al., 2019), but not all consumers believe in the quality of remanufactured products – this represents a barrier to advancing remanufacturing on the economic market. (Zhang, et al., 2011; Shaharudin et al., 2015; Khora and Hazen, 2017).

### 3. Research methodology

Online research is research based on non-probabilistic sampling methods. This means that they do not start from a pre-established sampling base that ensures representativeness. From the point of view of the sampling technique, guided sampling is used, through which the researcher consciously includes in the sample, the units subjectively chosen according to the known characteristics of the population from which the sample is to be extracted. In the case of online surveys, one method of guided sample formation is the voluntary method. The inclusion in the sample is made on the basis of the voluntary option of the subjects to participate in the research. Basically, the method consists in publishing an online questionnaire form and an invitation to respond. Under these conditions, there is the problem of statistical inference, which becomes impossible to achieve since the bias selection method is present and the representativeness of those who responded cannot be known. Thus, the research results will not be able to be extrapolated to the whole community. However, although the risk of misestimating the real parameters of the population is impossible to calculate, we can rely on this kind of research to obtain indications instead of estimators, regarding the real population (Callegaro, Manfreda, and Vehovar, 2015). Given all these methodological limitations, in recent years, research through online surveys has become quite common. The literature mentions as main advantages access to unique populations, time savings, low costs (Wright, 2005). Although we cannot extrapolate the results to the entire population of young people in Romania, we believe that this study can be a starting point for new research directions to address the issue of product remanufacturing.

The systematization of the survey data is done with the help of frequency tables. These will show the distribution of the answers both as frequency (number) and as Percentage, the graphical representation of the results is done with the help of bar graphs.

In the following section, it is presented the objectives and hypotheses of the paper.

#### Objectives

1. Given this context, the principal objective of the present work is to make a first approach to determining basic characteristics of the profile of potential consumers of remanufactured products, so that interested firms may have a solid base of information on which to establish their policies for the development and strengthening of these markets.

2. Thereby, one will not only be endowing the process of recovery of EOU products with economic meaning (financial profit, remanufacturing to sell), but also actually closing the CLSC cycle by putting recovered products back on the market.

3. Overall awareness of remanufactured products. Comparison with usual products.

#### Hypotheses:

1. A favorable attitude towards purchasing a remanufactured laptop will positively influence the purchase intention for that class of remanufactured product. (To measure this variable, the respondents were asked to score on a 5-point Likert scale their predisposition to purchasing this type of product.)

2. A favorable Subjective Norm towards purchasing a remanufactured laptop will positively influence the purchase intention for that class of remanufactured product. (The variable Motivations (M) was evaluated by a scale based on a review of the literature identifying the main

reasons that might influence the consumption of remanufactured products: technology, price, environment)

3. The level of Motivations towards purchasing a remanufactured laptop will positively influence the purchase intention for that class of remanufactured product. For the Marketing Mix Variables (MMV), the respondents were asked to indicate what level of importance the four indicators used in this scale (price, product, promotion, and distribution) had for them.

4. There is a relationship between the Marketing Mix Variables for remanufactured laptop marketing and the purchase intention for these remanufactured products.

5. Perceived value associated with remanufactured products positively influences intention to purchase remanufactured products.

6. Knowledge regarding the lower cost of remanufactured Products is positively related to perceived value of remanufactured products.

#### 4. Results and discussion

When the data made available to the researcher is survey data, the link between them can be highlighted with the help of association tables, or contingency tables.

We refer to the association when analyzing the simultaneous distribution of statistical observations by two or more qualitative characteristics that can be nominal or ordinal (Rotariu, Culic and Bădescu 2006.) The matrix of frequency distributions for the observed variables can be called contingency table or association table. Contingency tables thus allow us to analyze the behavior of the observed units (individuals, in the case of survey data) by a certain variable. The purpose of the analysis is to identify and describe the link between the variables included in the contingency table. Between two categorical variables, nominal or ordinal, we can say that there is an association, a link, when the distribution of the response variable changes with the change of the explanatory variable (Asandului 2010).

In the case of bivariate analysis (we consider the connection of two variables), it is important that before the actual analysis, to distinguish between the dependent variable (response variable) and the independent variable (explanatory variable). The dependent variable is the variable whose categories are compared. As a rule, in the contingency table it will make up the columns. The independent variable is the variable that, we assume, can explain the variation of the response variable. It will form the rows of the contingency table.

When distinguishing between the dependent variable and the independent variable, conditional probabilities are formed for the categories of the dependent variable. The sum of the conditional probabilities on each line is 1 or 100%. When the existence of an association is established between two variables, it means that the probabilities of occurrence of a certain result in the dependent variable depend on the value of the independent variable. There is an association between two vector variables if a certain value of one variable is more likely to occur in case of certain values of the other variable (Asandului, Statistical methods of analysis of categorical data 2010). It should be noted that the association between two variables is not equivalent to the existence of a causal relationship between the two variables (Agresti, 1996).

Two variables are considered to be statistically independent if the conditional distributions of the dependent variable are identical at each level of the independent variable. When two variables are independent, the probability of a certain result of column  $j$  is the same in each row (Agresti, 1996).

A common procedure for testing the independence of two categorical variables is to calculate Pearson test statistics  $\chi^2$  (Chi-Square). The test was first created by statistician Karl Pearson in 1900. The null hypothesis of the independence test is given by comparing the observed frequencies with the expected frequencies:

To estimate the expected frequencies, the proportion of the sample for unknown marginal probabilities is replaced by providing:

$$\hat{\mu}_{ij} = np_{i+}p_{+j} = n \left( \frac{n_{i+}}{n} \right) \left( \frac{n_{+j}}{n} \right) = \frac{n_{i+}n_{+j}}{n}$$

This is the total of the lines for the cell multiplied by the total of the column for the cell, divided by the total size of the sample.  $\{\mu_{ij}\}$  are called estimated expected frequencies. They have the same values for total rows and total columns, but display a pattern of independence.

To test the independence of variables in  $I \times J$  form contingency tables, Person statistics are calculated according to the formula.

$$\chi^2 = \sum \frac{(n_{ij} - \hat{\mu}_{ij})^2}{\hat{\mu}_{ij}}$$

It is important to note that the test statistic  $\chi^2$  does not provide information on the size or nature of the association between the variables. It also treats the variables as nominal ignoring the information related to the order (Asandului 2010, Agresti 1996). Therefore, in the case of survey data, in which the answers are recorded by ordinal scales to use coefficients specific to the ordinal variables. In the case of these types of data, a trend component is also present, as the level of the explanatory variable increases, the responses of the dependent variable tend to decrease to lower levels (Agresti, 1996).

The non-parametric Spearman correlation coefficient, also called the rank correlation coefficient, is calculated to describe the intensity and direction of the association between two ordinal categorical variables.

In interpreting this indicator we can talk about the existence of a sign that denotes the nature of the association and a size as an indicator of the intensity of the connection. The range of variation of the coefficient values is  $[-1, +1]$ , where the value 1 means that there is no discrepancy and the value -1 when the number of concordances is 0. When the number of concordances is equal to the number of discrepancies the value of the coefficient is 0 ( Rotariu, Culic and Bădescu, 2006; Asandului 2010). This situation is equivalent to the independence between the two variables.

*Hypothesis 1: there is a positive relationship between the degree of study and question no. 3 and no. 6 (section 3)*

		Education level									
		Less than high school degree		High school degree		Some college		Bachelor's degree		Master's degree or higher	
		Count	Column N %	Count	Column N %	Count	Column N %	Count	Column N %	Count	Column N %
After reading the definition above, do you think it is better to purchase a product that affects the environment less than a product which has the same specifications, but requires more virgin raw materials?	no	0	0.0%	0	0.0%	1	20.0%	5	11.9%	5	9.8%
	Yes	0	0.0%	6	<b>85.7%</b>	3	60.0%	26	61.9%	33	64.7%
	I am not sure.	0	0.0%	1	14.3%	1	20.0%	11	26.2%	13	25.5%
Do you consider the remanufactured product as reliable?	Strongly agree	0	0.0%	0	0.0%	0	0.0%	1	2.4%	1	2.0%
	Agree	0	0.0%	3	42.9%	0	0.0%	9	21.4%	16	31.4%
	Slightly agree	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	Neither agree or disagree	0	0.0%	3	<b>42.9%</b>	<b>3</b>	<b>60.0%</b>	23	<b>54.8%</b>	24	47.1%
	Slightly disagree	0	0.0%	1	14.3%	2	40.0%	8	19.0%	9	17.6%
	Disagree	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	2.0%
	Strongly disagree	0	0.0%	0	0.0%	0	0.0%	1	2.4%	0	0.0%

The percentages at the level of variables are interpreted where a higher value is observed in bold.

The evaluation of the association between ordinal categorical variables is done using the Chi-Square independence test.

#### Pearson Chi-Square Tests

		Education level
After reading the definition above, do you think it is better to purchase a product that affects the environment less than a product which has the same specifications, but requires more virgin raw materials?	Chi-square	2.217
	df	6
	Sig.	.899 <sup>a,b</sup>
Do you consider the remanufactured product as reliable?	Chi-square	7.445
	df	15
	Sig.	.944 <sup>a,b</sup>

Results are based on nonempty rows and columns in each innermost sub table.

a. More than 20% of cells in this sub table have expected cell counts less than 5. Chi-square results may be invalid.

b. The minimum expected cell count in this sub table is less than one. Chi-square results may be invalid.

For the Pearson Chi Square independence test we note that  $P > 0.05$  there is no link between the level of education and the variables analysed.

To establish the direction and intensity of the relationship, the correlation coefficient of the Spearman ranks is used.

For the Spearman correlation coefficient, we notice that  $P > 0.05$  there is no connection between the level of education and the analysed variables.

			After reading the definition above, do you think it is better to purchase a product that affects the environment less than a product which has the same specifications, but requires more virgin raw materials?	Do you consider the remanufactured product as reliable?
Spearman's rho	Education level	Correlation Coefficient	.031	-.078
		Sig. (2-tailed)	.751	.429
		N	105	105

Hypothesis 1 is not validated.

Hypothesis 2: there is a positive relationship between the respondents' degree of education and question no. 9 (section 3)

			Are you willing to research about remanufactured products and take them into consideration before purchasing a mobile phone and/or laptops?			
			0	Yes	No	Maybe
Education level	Less than high school degree	Count	0	0	0	0
		Column N %	0.0%	0.0%	0.0%	0.0%
	High school degree	Count	0	2	0	5
		Column N %	0.0%	28.6%	0.0%	71.4%
	Some college	Count	0	2	0	3
		Column N %	0.0%	40.0%	0.0%	60.0%
	Bachelor's degree	Count	4	25	0	13
		Column N %	9.5%	59.5%	0.0%	31.0%
	Master's degree or higher	Count	3	30	0	18
		Column N %	5.9%	58.8%	0.0%	35.3%



## Pearson Chi-Square Tests

		Education level
Are you willing to research about remanufactured products and take them into consideration before purchasing a mobile phone and/or laptops?	Chi-square	6.090
	df	6
	Sig.	.413 <sup>a,b</sup>

Results are based on nonempty rows and columns in each innermost sub table.

a. More than 20% of cells in this sub table have expected cell counts less than 5. Chi-square results may be invalid.

b. The minimum expected cell count in this sub table is less than one. Chi-square results may be invalid.

For the Pearson Chi Square independence test we notice that  $P > 0.05$  there is no connection between the level of education and the analysed variables.

			Are you willing to research about remanufactured products and take them into consideration before purchasing a mobile phone and/or laptops?
Spearman's rho	Education level	Correlation Coefficient	-.092
		Sig. (2-tailed)	.353
		N	105

For the Spearman correlation coefficient, we notice that  $P > 0.05$  there is no connection between the level of education and the analysed variables.

Hypothesis 2 is not validated.

## Hypothesis 3:

Option A: there is a positive relationship between how much respondents spend on a laptop phone (in 5 and 6 section 2) of respondents and their decision to buy a remanufactured product (in no. 3 section 3).

After reading the definition above, do you think it is better to purchase a product that affects the environment less than a product which has the same specifications, but requires more virgin raw materials?

		No	Yes	I am not sure. I have to read more about this subject.
		Column N %	Column N %	Column N %
How much money have you spent on a phone?	<200 euro	0.0%	0.0%	0.0%
	200 – 400 euro	54.5%	55.9%	76.9%
	400 – 600 euro	36.4%	25.0%	15.4%
	>600 euro	9.1%	19.1%	7.7%
How much money have you spent on a laptop?	<200 euro	0.0%	2.9%	0.0%
	200 – 400 euro	36.4%	16.2%	53.8%
	400 – 600 euro	36.4%	51.5%	30.8%
	>600 euro	27.3%	29.4%	15.4%

## Pearson Chi-Square Tests

After reading the definition above, do you think it is better to purchase a product that affects the environment less than a product which has the same specifications, but requires more virgin raw materials?

How much money have you spent on a phone?	Chi-square	4.909
	df	4
	Sig.	.297 <sup>a</sup>
How much money have you spent on a laptop?	Chi-square	14.537
	df	6
	Sig.	.024 <sup>a,c</sup>

Results are based on nonempty rows and columns in each innermost sub table.

\*. The Chi-square statistic is significant at the 0.05 level.

a. More than 20% of cells in this sub table have expected cell counts less than 5. Chi-square results may be invalid.

c. The minimum expected cell count in this sub table is less than one. Chi-square results may be invalid.

For the Pearson Chi Square independence test we notice that  $P > 0.05$  there is no connection between the variable "how much money have you spent on a phone" and the decision to buy.

There is, however, an association between how much they are willing to spend for a laptop and the decision to buy: Chi-square = 14,537,  $p < 0.05$  the Spearman correlation coefficient allows us to see the meaning of the connection between the amount spent on a laptop and the decision to buy ( $\rho = -0.195$ ,  $p < 0.05$ ) There is a negative link of low intensity between the purchase decision and how much they would be willing to spend for a laptop.

The more they are willing to spend, the more undecided they are to buy a manufactured product.

		How much money have you spent on a laptop?	How much money have you spent on a phone?
Spearman's rho	After reading the definition above, do you think it is better to purchase a product that affects the environment less than a product which has the same specifications, but requires more virgin raw materials?	Correlation Coefficient	-.195*
		Sig. (2-tailed)	.046
		N	105

Hypothesis 3 has been partially validated.

#### Hypothesis 4

*Option B: It means that those who have a lower income (the question in section 1 about income can also be considered) are more likely to look for information / to buy remanufactured products (another correlation may be between item No. 6, section 1 and in no. 9 section 3).*

		Income				
		<500	500 -1000	1000-1500	>1500	NA
		euro	euro	euro	euro	
		Column	Column	Column N	Column	Column
		N %	N %	%	N %	N %
After reading the definition above, do you think it is better to purchase a product that affects the environment less than a product which has the same specifications, but requires more virgin raw materials?	no	0.0%	11.9%	11.1%	0.0%	13.3%
	Yes	63.6%	65.7%	77.8%	100.0%	46.7%
	I am not sure. I have to read more about this subject.	36.4%	22.4%	11.1%	0.0%	40.0%
Are you willing to research about remanufactured products and take them into consideration before purchasing a mobile phone and/or laptops?	0	0.0%	6.0%	11.1%	0.0%	13.3%
	Yes	63.6%	56.7%	66.7%	66.7%	40.0%
	No	0.0%	0.0%	0.0%	0.0%	0.0%
	Maybe	36.4%	37.3%	22.2%	33.3%	46.7%

#### Pearson Chi-Square Tests

		Income
After reading the definition above, do you think it is better to purchase a product that affects the environment less than a product which has the same specifications, but requires more virgin raw materials?	Chi-square	6.881
	df	8
	Sig.	.550 <sup>a,b</sup>
Are you willing to research about remanufactured products and take them into consideration before purchasing a mobile phone and/or laptops?	Chi-square	4.215
	df	8
	Sig.	.837 <sup>a,b</sup>

Results are based on nonempty rows and columns in each innermost sub table.

a. More than 20% of cells in this sub table have expected cell counts less than 5. Chi-square results may be invalid.

b. The minimum expected cell count in this sub table is less than one. Chi-square results may be invalid.

			Are you willing to research about remanufactured products and take them into consideration before purchasing a mobile phone and/or laptops?	After reading the definition above, do you think it is better to purchase a product that affects the environment less than a product which has the same specifications, but requires more virgin raw materials?
Spearman's rho	Income	Correlation Coefficient	-.024	-.037
		Sig. (2-tailed)	.804	.707
		N	105	105

For the Pearson Chi Square independence test we notice that  $P > 0.05$  there is no connection between the income level and the analysed variables. For the Spearman correlation coefficient, we notice that  $P > 0.05$  there is no connection between the income level and the analysed variables.

Hypothesis 4 B is invalidated.

*Hypothesis 5: there is a positive relationship between the decision makers to buy a product (entry No. 7, section 2) and consumer confidence in remanufactured products (entry No. 6, section 3 or question No. 7 section 3, by that I want to show the consumers' perception of the different characteristics that remanufactured products have).*

Hypothesis 5: there is a positive relationship between the decision makers to buy a product (entry No. 7, section 2) and consumer confidence in remanufactured products (entry No. 6, section 3 or question No. 7 section 3, by that I want to show the consumers' perception of the different characteristics that remanufactured products have).

		Do you consider the remanufactured product as reliable?						
		Strongly agree	Agree	Slightly agree	Neither agree or disagree	Slightly disagree	Disagree	Strongly disagree
		Column N %	Column N %	Column N %	Column N %	Column N %	Column N %	Column N %
Product sustainability over time	1	0.0%	0.0%	0.0%	3.8%	5.0%	0.0%	0.0%
	2	0.0%	0.0%	0.0%	7.5%	0.0%	0.0%	100.0%
	3	50.0%	25.0%	0.0%	13.2%	20.0%	0.0%	0.0%
	4	0.0%	25.0%	0.0%	28.3%	25.0%	0.0%	0.0%
	5	50.0%	50.0%	0.0%	47.2%	50.0%	100.0%	0.0%
Price	1	0.0%	3.6%	0.0%	0.0%	0.0%	0.0%	100.0%
	2	0.0%	0.0%	0.0%	3.8%	10.0%	0.0%	0.0%
	3	0.0%	14.3%	0.0%	24.5%	20.0%	0.0%	0.0%
	4	50.0%	50.0%	0.0%	34.0%	30.0%	0.0%	0.0%
	5	50.0%	32.1%	0.0%	37.7%	40.0%	100.0%	0.0%
Product specifications	2	0.0%	3.6%	0.0%	3.8%	5.0%	0.0%	100.0%
	3	0.0%	3.6%	0.0%	11.3%	25.0%	0.0%	0.0%
	4	50.0%	21.4%	0.0%	39.6%	35.0%	0.0%	0.0%
	5	50.0%	71.4%	0.0%	45.3%	35.0%	100.0%	0.0%
Customer reviews	1	0.0%	0.0%	0.0%	1.9%	5.0%	0.0%	0.0%
	2	0.0%	7.1%	0.0%	13.2%	10.0%	0.0%	100.0%
	3	0.0%	25.0%	0.0%	17.0%	20.0%	100.0%	0.0%
	4	0.0%	28.6%	0.0%	45.3%	35.0%	0.0%	0.0%
	5	100.0%	39.3%	0.0%	22.6%	30.0%	0.0%	0.0%
Build quality	1	0.0%	0.0%	0.0%	0.0%	5.0%	0.0%	100.0%
	2	0.0%	0.0%	0.0%	5.7%	10.0%	0.0%	0.0%
	3	0.0%	10.7%	0.0%	13.2%	20.0%	0.0%	0.0%
	4	50.0%	50.0%	0.0%	41.5%	45.0%	100.0%	0.0%
	5	50.0%	39.3%	0.0%	39.6%	20.0%	0.0%	0.0%
Brand	1	0.0%	3.6%	0.0%	7.5%	0.0%	0.0%	0.0%
	2	0.0%	10.7%	0.0%	13.2%	25.0%	0.0%	100.0%
	3	0.0%	39.3%	0.0%	24.5%	25.0%	0.0%	0.0%
	4	50.0%	32.1%	0.0%	32.1%	30.0%	0.0%	0.0%
	5	50.0%	14.3%	0.0%	22.6%	20.0%	100.0%	0.0%

## Pearson Chi-Square Tests

		Do you consider the remanufactured product as reliable?
Product sustainability over time	Chi-square	28.944
	df	20
	Sig.	.089 <sup>a,b</sup>
Price	Chi-square	61.665
	df	20
	Sig.	.000 <sup>a,b,*</sup>
Product specifications	Chi-square	31.906
	df	15
	Sig.	.007 <sup>a,b,*</sup>
Customer reviews	Chi-square	22.567
	df	20
	Sig.	.311 <sup>a,b</sup>
Build quality	Chi-square	61.240
	df	20
	Sig.	.000 <sup>a,b,*</sup>
Brand	Chi-square	17.294
	df	20
	Sig.	.634 <sup>a,b</sup>

Results are based on nonempty rows and columns in each innermost sub table.

\*. The Chi-square statistic is significant at the .05 level.

a. More than 20% of cells in this sub table have expected cell counts less than 5. Chi-square results may be invalid.

b. The minimum expected cell count in this sub table is less than one. Chi-square results may be invalid.

For the Pearson Chi Square independence test we notice a  $P > 0.05$  for Price, Product specifications, Build quality, there is an association between the belief that remanufactured products are reliable and these 3 factors.

		Do you consider that such products contain different features than the usual ones?						
		Strongly agree	Agree	Slightly agree	Neither agree or disagree	Slightly disagree	Disagree	Strongly disagree
		Column N	Column N	Column N	Column N %	Column N %	Column N	Column N %
		%	%	%			%	
Product sustainability over time	1	0.0%	0.0%	0.0%	3.0%	4.0%	0.0%	0.0%
	2	0.0%	0.0%	0.0%	6.1%	0.0%	14.3%	0.0%
	3	0.0%	14.3%	0.0%	18.2%	24.0%	0.0%	0.0%
	4	0.0%	42.9%	0.0%	25.8%	24.0%	14.3%	0.0%
	5	0.0%	42.9%	0.0%	47.0%	48.0%	71.4%	0.0%
Price	1	0.0%	14.3%	0.0%	0.0%	0.0%	14.3%	0.0%
	2	0.0%	14.3%	0.0%	1.5%	8.0%	0.0%	0.0%
	3	0.0%	14.3%	0.0%	21.2%	24.0%	0.0%	0.0%
	4	0.0%	14.3%	0.0%	40.9%	32.0%	42.9%	0.0%
	5	0.0%	42.9%	0.0%	36.4%	36.0%	42.9%	0.0%
Product specifications	2	0.0%	14.3%	0.0%	1.5%	8.0%	14.3%	0.0%
	3	0.0%	0.0%	0.0%	12.1%	16.0%	0.0%	0.0%
	4	0.0%	42.9%	0.0%	39.4%	24.0%	0.0%	0.0%
	5	0.0%	42.9%	0.0%	47.0%	52.0%	85.7%	0.0%
Customer reviews	1	0.0%	0.0%	0.0%	1.5%	4.0%	0.0%	0.0%
	2	0.0%	14.3%	0.0%	13.6%	0.0%	28.6%	0.0%
	3	0.0%	28.6%	0.0%	16.7%	24.0%	28.6%	0.0%
	4	0.0%	0.0%	0.0%	37.9%	52.0%	14.3%	0.0%
	5	0.0%	57.1%	0.0%	30.3%	20.0%	28.6%	0.0%
Build quality	1	0.0%	0.0%	0.0%	1.5%	0.0%	14.3%	0.0%
	2	0.0%	14.3%	0.0%	4.5%	4.0%	0.0%	0.0%
	3	0.0%	0.0%	0.0%	16.7%	12.0%	0.0%	0.0%
	4	0.0%	42.9%	0.0%	45.5%	48.0%	28.6%	0.0%
	5	0.0%	42.9%	0.0%	31.8%	36.0%	57.1%	0.0%
Brand	1	0.0%	0.0%	0.0%	7.6%	0.0%	0.0%	0.0%
	2	0.0%	0.0%	0.0%	16.7%	16.0%	14.3%	0.0%
	3	0.0%	42.9%	0.0%	24.2%	28.0%	42.9%	0.0%
	4	0.0%	28.6%	0.0%	31.8%	28.0%	42.9%	0.0%
	5	0.0%	28.6%	0.0%	19.7%	28.0%	0.0%	0.0%

Regarding the variable “Do you consider that such products contain different features than the usual ones? “

No association relations are identified with the factors,  $p > 0.05$  for each of the 6 factors, hypothesis 5 is invalidated.

## Pearson Chi-Square Tests

		Do you consider that such products contain different features than the usual ones?
Product sustainability over time	Chi-square	7.438
	df	12
	Sig.	.827 <sup>a,b</sup>
Price	Chi-square	20.729
	df	12
	Sig.	.054 <sup>a,b</sup>
Product specifications	Chi-square	12.642
	df	9
	Sig.	.179 <sup>a,b</sup>
Customer reviews	Chi-square	14.637
	df	12
	Sig.	.262 <sup>a,b</sup>
Build quality	Chi-square	12.222
	df	12
	Sig.	.428 <sup>a,b</sup>
Brand	Chi-square	8.283
	df	12
	Sig.	.763 <sup>a,b</sup>

Results are based on nonempty rows and columns in each innermost sub table.

a. More than 20% of cells in this subtable have expected cell counts less than 5. Chi-square results may be invalid.

b. The minimum expected cell count in this sub table is less than one. Chi-square results may be invalid.

I have also calculated the Spearman correlation coefficient to identify the nature and intensity of the association between the variables.

The scale for measuring the importance of the factors is from 1 to 5 with 5 the highest value, and to measure the agreement a Likert scale was used from 1 to 7 with 1 being total agreement and 7 total disagreement.

Therefore, a high score for importance corresponds to a low score for agreement which means that in the correlation table below the correlations will have the minus sign - which will mean in relation to our data a positive association.



To conclude:

Those who consider remanufactured products to be reliable will give more importance to: Product specifications ( $\rho = -0.271$ ,  $p < 0.05$ ) and,

Brand Quality ( $\rho = -0.229$ ,  $p < 0.05$ )

These are the only significant correlations identified, the hypothesis partially validated.

		Product sustainability over time	Price	Product specifications	Customer reviews	Build quality	Brand
Do you consider the remanufactured product as reliable?	Correlation Coefficient	-.022	-.043	<b>-.271**</b>	-.162	<b>-.229*</b>	-.019
	Sig. (2-tailed)	.822	.663	<b>.005</b>	.098	<b>.019</b>	.846
	N	105	105	105	105	105	105
Do you consider that such products contain different features than the usual ones?	Correlation Coefficient	.051	.006	.077	-.080	.068	-.001
	Sig. (2-tailed)	.608	.951	.434	.415	.491	.990
	N	105	105	105	105	105	105

Hypothesis 6: There is a positive (awareness / knowledge) relationship between question no. 1 and no. 2 (both section 3)

“Awareness” is a variable with multiple answers that is not suitable for a correlation analysis. Association tables can be made.

		Have you heard of this concept before?		
		no	yes	maybe
		Column Response % (Base: Count)	Column Response % (Base: Count)	Column Response % (Base: Count)
DEFINITIONS	Refurbished	20.0%	<b>44.4%</b>	16.0%
	Recondition	48.6%	<b>57.8%</b>	<b>48.0%</b>
	Restore	37.1%	31.1%	32.0%
	Re-used / Used	28.6%	13.3%	24.0%
	Repair	<b>37.1%</b>	37.8%	24.0%
	Recycled	20.0%	24.4%	40.0%
	Upgrade / Upcycling to state-of-art technology / Rebuilt	31.4%	26.7%	<b>48.0%</b>

## 5. Conclusions

This paper sought to analyse consumers' perceptions of remanufactured electronic products, specifically mobile phones and laptops, and their willingness to consider them to protect the environment (as a triggering factor). In addition to demographic factors (age, gender, level of education), I considered some questions about the costs they incurred when buying new products versus remanufactured products (if any), factors they take into consideration when deciding to buy electronic products, if they have heard about the concept of remanufacturing, etc. Because of the lack of respondents, many hypotheses were invalidated, therefore future research should seek to incorporate longitudinal or event studies to gain added insights into consumer perceptions of remanufactured product quality in before-and-after scenarios that introduce additional phenomena.

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## Tax compliance: cointegration analysis in romanian context

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**Abstract:** *This paper aims to identify the long-run relationships between the quality of the education system, public trust in politicians, wastefulness of government spending and tax compliance in the area of individual income taxation (taxpayer's behaviour). Using data for Romania during 2007-2017 period, the analysis identifies a long-run relationship between the variables.*

**Keywords:** tax policy; tax behaviour; tax compliance; cointegration; unit root; stationarity; Romania

**JEL Classification:** H21; H26

## 1. Introduction

The ability of governments to regulate, implement measures, and reallocate resources depends, to a large extent, on their ability to generate revenue. Tax rates, as well as tax revenues, may influence the level of tax compliance in a country.

Tax compliance refers to the correct calculation, reporting and full and timely payment of taxes by the taxpayer. The analysis of tax compliance highlights the degree to which the taxpayer complies (or not) with tax rules, for example, by declaring income and paying the tax. Tax compliance emphasizes the degree of fulfilment of all tax obligations, as specified by the law. Thus, reference is made to the filing of tax returns in time, the correct mention of income and deductions, and the payment of taxes.

The analysis in this paper is focused on identifying the relationship between individual income tax compliance and other variables (quality of the education system, public trust in politicians, and wastefulness of government spending), in the case of Romania. The next section presents a summary of the relevant findings in the previous research. Section three contains the data and the methodology used. Section four presents the results. The last section concludes.

## 2. Literature Review

In the literature, various aspects related to tax compliance (taxpayer's behaviour) are analysed. Thus, Kirchler and Wahl (2010) discuss the need to assess the tax compliance, tax avoidance, and tax evasion. The authors provide a standardized inventory to be used in surveys. The study of Tran-Nam, et al. (2000) shows that the costs of tax compliance are significant and regressive. Wu and Teng (2005) point out that the tax burden significantly affects the degree of tax compliance, with non-economic factors being important determinants of tax compliance. The authors underline the negative influence of tax rates on tax compliance.

Bătrâncea, et al. (2012) analyse the most relevant studies on the factors that shape tax compliance, in order to understand how these factors could be used by tax authorities, highlighting the most relevant socio-psychological, political and economic ones. The authors underline that an inefficient fiscal policy, reflected in the waste of public funds and in the low quality of public goods, determine taxpayers to think twice before paying their tax obligations. Baum, et al. (2017) highlight the effects of corruption on the state's ability to generate revenue. The corruption is negatively associated with the level of tax revenues and its components. Developing the relationship between the tax administration and the taxpayer improves the tax compliance, by reducing the perception of corruption, thus stimulating the revenues.

The study from the European Commission (2013) assesses and compares various methodologies used to measure the costs of tax compliance, defined as the costs incurred by businesses and individuals to comply with tax regulations, excluding the costs represented by the taxes. The study emphasized that the costs of tax compliance are a growing concern for the taxpayers, who bear them, but also for tax administrations, who want to increase the efficiency of tax systems.

Castro and Scartascini (2015) developed an analysis of taxpayer's compliance and beliefs related to the payment of property tax, compliance levels, and reciprocity. The paper empirically

explores the situation in which the provision of information to taxpayers influences or not their decision to comply. The information is related to the level of reciprocity, compliance of other taxpayers, and taxes. Evidence is provided on the relative importance of these policy tools.

Doerrenberg (2015) analyses the situation in which the use of tax revenues influences compliance behaviour. Tax compliance depends on the use of tax revenue and it is higher when tax revenue is spent on research activities and charitable activities. Gangl, et al. (2014) analyse the tax compliance, focusing on newly created firms. The effect of the tax authority's supervision on timely tax payments is examined. The results show a negative effect of supervision on tax compliance. Kosonen and Ropponen (2015) study the unintentional mistakes of firms in filing tax returns and the extent to which this can be influenced by providing information about the tax code. The results indicate that companies make unintentional mistakes in tax returns and that information about tax rules significantly reduces these mistakes. Weber et al (2014) discuss the behavioural economics literature in the field of taxation and provide information about behavioural economic policy regarding tax compliance (of individuals). The authors emphasized that tax compliance has a direct impact on a country's ability to provide public goods.

Brezeanu et al (2018) analysed the influencing factors of taxpayer's behaviour. The paper contains an econometric model assessing the impact of variables such as poverty, labour productivity, population confidence in state authorities, gross domestic product per capita on tax behaviour, which was estimated using as a proxy the tax rate. The results underlined that there is a negative correlation between taxpayer's behaviour, namely tax compliance, and financial capacity, labour productivity and taxpayer's confidence in state authorities. There is also a positive correlation between tax compliance and GDP per capita.

The analysis of the literature provided an image of the researchers' concerns in identifying the impact of socio-economic and political variables on tax compliance. In the following sections, the relationship between the quality of the education system, public trust in politicians, wastefulness of government spending, and tax compliance in the area of individual income taxation (taxpayer's behaviour) is assessed.

### 3. Research Methodology

An annual dataset for 2007 – 2017 period was developed for Romania. The variables used in analysis are presented in the following table.

Table 1. The variables used in analysis

Acronym	Explanation	Unit	Source
TAXCI	Tax compliance (the taxpayer's behaviour)	Index	National Institute of Statistics
QEDS	Quality of the education system		World Bank
TRUST	Public trust in politicians		
WGOVS	Wastefulness of government spending		

Source: developed by authors.

Note: TAXCI is computed as a ratio between tax on individual income and GDP.

The descriptive statistics are presented in the following table. This table is presenting important information (mean, median, standard deviation, skewness, kurtosis) regarding the data series.

Table 2. Descriptive statistics

	TAXCI	QEDS	TRUST	WGOVS
Mean	0.035	3.420	1.947	2.503
Median	0.035	3.370	1.959	2.500
Maximum	0.037	3.904	2.317	2.752
Minimum	0.032	2.798	1.745	2.156
Std. Dev.	0.001	0.331	0.180	0.157
Skewness	-0.052	-0.203	0.692	-0.639
Kurtosis	2.881	2.375	2.684	3.602
Jarque-Bera	0.012	0.255	0.923	0.915
Probability	0.994	0.880	0.630	0.633
Sum	0.382	37.621	21.421	27.53
Sum Sq. Dev.	1.44E-05	1.098	0.324	0.247

Source: developed by authors.

In the analysis, it is important first to establish the nature of the time series, and thus to verify the data stationarity. The test used is the unit root, by successively applying the Augmented Dickey – Fuller (ADF), Elliott-Rothenberg-Stock DF-GLS, and Philips-Perron (PP) methods. Economic variables are often non-stationary and it is preferable to apply some tests to verify this feature. If the data series are non-stationary, with the same order of integration, then a long-run relationship between the variables may exist, provided that they are cointegrated. Cointegration tests are applied to avoid false results. A linear combination of two or more non-stationary series can be stationary (Engle and Granger, 1987).

To test for cointegration, the Engle-Granger method is used. The Engle-Granger residual-based test (unit root test) is applied to the residuals. The test has the method of accounting for serial correlation in the residual series - the parametric, Augmented Dickey-Fuller (ADF) approach.

#### 4.Results and Discussion

To test the presence of a unit root (to analyse the non-stationarity of the data series), ADF, ERS DF-GLS and PP tests are applied. All three unit root tests indicate that the selected variables, TAXCI, QEDS, TRUST, and WGOVS respectively, are non-stationary and integrated of the order one I(1). The results of the tests for non-stationarity of the variables, in levels and in differences, are reported in the following table.



Table 3. Tests for non-stationarity on selected variables (unit root test)

Variables	Augmented Dickey-Fuller (ADF)	Elliott-Rothenberg-Stock DF-GLS test statistic	Phillips-Perron test statistic
Level			
TAXCI	-2.519	-2.367*	-2.540
QEDS	-1.537	-2.245	-0.789
TRUST	-2.070	-2.168	-1.923
WGOVS	-2.152	-2.310*	-2.174
1st diff.			
$\Delta$ TAXCI	-3.882*	-4.395**	-4.037*
$\Delta$ QEDS	-3.482*	-3.036*	-1.884
$\Delta$ TRUST	-3.230	-3.502*	-4.187*
$\Delta$ WGOVS	-5.394**	-5.936**	-5.936**

Source: developed by authors.

Note:  $p < 0.05$  \*,  $p < 0.01$  \*\*,  $p < 0.001$  \*\*\*.

In the following, the Engle-Granger cointegration test was applied, to identify the existence of long-run relationships between variables. The Engle-Granger residual-based tests are unit root tests applied to the residuals obtained from a static (S) OLS cointegrating regression.

Regarding the test results, the normalized autocorrelation coefficient (z-statistic) for residuals are computed. The results for the z-statistics are mixed, with the residuals from the WGOVS equation which are unable to reject the null hypothesis. On balance, however, the test statistics suggest that we can reject the null hypothesis of no cointegration.

Table 4. Single-equation cointegration test - Engle-Granger cointegration test

Series: TAXCI QEDS TRUST WGOVS		
Sample: 2007 2017		
Null hypothesis: Series are not cointegrated		
Cointegrating equation deterministics: C		
Automatic lags specification based on Schwarz criterion (maxlag=1)		
Dependent	z-statistic	Prob.*
TAXCI	-19.892	0.000
QEDS	-99.473	0.000
TRUST	-44.134	0.000
WGOVS	-8.903	0.611

Source: developed by authors.

Note:  $p < 0.05$  \*,  $p < 0.01$  \*\*,  $p < 0.001$  \*\*\*.

The unit root test and the Engle-Granger cointegration test indicated that the data series are non-stationary and cointegrated. In conclusion, we can say that there is a long-run equilibrium relationship between the analysed variables.

## 5. Conclusions

The paper finds evidence that there is a long-run relationship between the quality of the education system, public trust in politicians, wastefulness of government spending and tax compliance in the area of individual income taxation (taxpayer's behaviour).

If taxpayers have a higher level of education, then there are good chances that they will acquire the ability to understand the necessity to pay taxes and the impact of their action on the decision maker's capacity to collect revenues, used for financing socio-economic measures for the whole society. At the same time, education may lead to a boost in tax compliance, as it contributes to an increase in taxpayers' willingness to comply.

Confidence in politicians can strongly influence the taxpayer's behaviour. If there is a high perception of corruption in society, the taxpayers will attempt not to declare an important part of their revenues, in order to pay fewer taxes. On the contrary, if individuals believe in decision-makers' honesty to act in the interest of citizens and to elaborate fair measures and procedures, they will more likely cooperate, by declaring all their revenues and paying due taxes. In this context, improving the relationship of trust between taxpayers and politicians may play an important role in ensuring increased voluntary tax compliance.


Another important aspect of tax compliance is related to the capacity of the government to use the revenue from taxes in the best way possible. Individuals will pay their tax obligations if they are convinced that the decision-makers are using these funds to provide adequate public goods.

Future research may consider to extend the time period of analysis and to develop a vector error correction model (VECM) and the impulse response function, explaining the impact produced by a shock in independent variables on tax compliance. Future research may also develop an analysis with a panel dataset for EU countries, tax compliance depending on various factors influencing the socio-economic environment.

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# Rural and urban population in the European Union

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**Abstract:** This paper investigates the size of the rural population in Romania. If we define the rural community in Europe, we can say that more than half of the people in the 27 European states live in rural areas. As the surface of these rural localities occupies over 90% of the European Union territory, which is important because until recently, within the European Union's policies, the rustic was considered a sector, and no emphasis was placed on its character and spatial size. From this position derived from the available studies and statistics, the study adopts desktop research methods from reliable sources to retrieve verified data to complete this study. The findings of the study are also outlined in the paper as follows. The study finds out the opposite trend in urbanization in Romania as more people are settling in rural areas than the rest of the countries across the European Union. This paper entails a discussion section where the data is well presented and explained using tables, graphs, and images to relay the information. The report concludes by outlining significant findings of the study like the opposite urbanization trends in Romania compared with UE countries.

**Keywords:** Rural Romania, Urban Romania, Romania GDP

**JEL:** J64, B16

## 1. Introduction

Rural population represents topic of interest in the literature. From an economic point of view, it stimulates the appearance of rural entrepreneurship and contributes to regional development (Burcea, Hudea and Toma, 2014).

If we define the rural population in Europe, we can say that more than half of the population in the 27 European states lives in rural areas. As the surface of these rural localities occupies over 90% of the territory of the European Union, which is important because until recently within the policies of the European Union, the rural was considered a sector and no emphasis was placed on its character and spatial size. The rural environment includes localities that have a population density of fewer than 150 inhabitants per square meter, thus being able to have a classification according to NUTS (3) (Nomenclature of territorial units for statistics at level 3 as follows:

Predominantly rural regions: Here over 50% of the inhabitants live in communes with less than 150 inhabitants per square meter

Rural regions: Here between 15% and 50% of the inhabitants live in communes with less than 150 inhabitants per square meter.

Urban regions: Here less than 15% of the inhabitants live in communes with less than 150 inhabitants per square meter.

## 2. Literature review

By 2015, just over a quarter of the EU-28 total population lived in rural areas. This distribution meant that the higher side of the community lived in urban areas. According to this study, over five years from 2010 to 2015, there was an escalation in the number of inhabitants living in rural areas across the EU-28, which saw the general increase up to 1.7% percentage points (Eurostat, 2015).

According to Eurostat (2015) statistics, over half of the people living in rural areas in Romania, Malta, and Bulgaria are at a high risk of social exclusion or poverty. Furthermore, the study reveals that most of the member states joining the union by the year 2004 record a higher risk of poverty or social exclusion.

According to another study by Shucksmith et al., (2009), the urban population's growth was even more significant after recording a rise of 4.7 points. This trend was attributed to the fact that most of the working population mover into suburbs to find better and affordable housing. The study ends by highlighting some of the urban growth projections, predicting a close to 5.2 points increase in the town population.

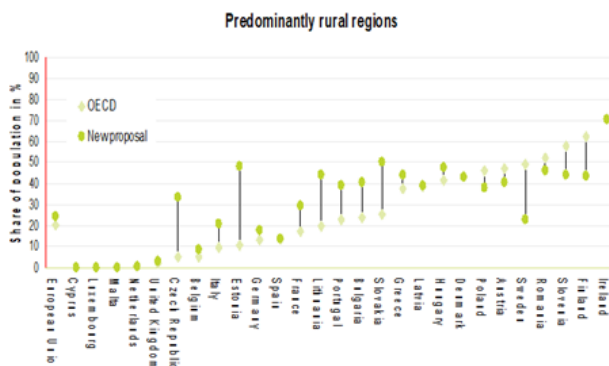
## 3. Research Methodology

This study utilized qualitative research methods to address the topic. Furthermore, an interpretivism study philosophy in the aim of addressing the subject holistically. Concerning the approach, the study utilizes an interpretive study approach to explore the different avenues related to the topic. It is also important to note that this study extensively uses desktop research methods in data collection and analysis. Most of these desktop methods included taking data from reliable sources such as magazines, journals, websites, and blogs.

#### 4. Results and discussion

Southern Europe is facing productivity problems. One of the explanations given by the Wall Street Journal is that Europeans in the south of the continent work more on farms, and agriculture has low productivity. Eurostat claims that in 2010 12% of Greeks worked in agriculture, 7% of Portuguese, while the average in the euro area is 3%.

Figure 1. Rural regions in Europe 2010



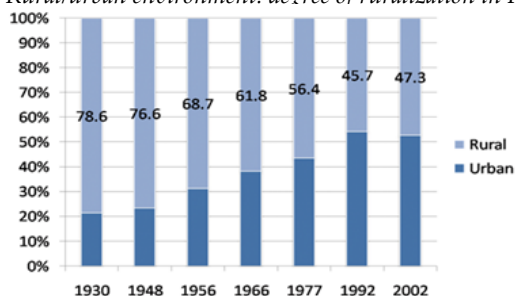
Source: Eurostat

In Germany, only 2% of employees work in agriculture. According to a study conducted by the Telegraph, the population living in rural areas has a life expectancy two years longer than in urban areas. The data needed for the study were collected over six years between 2001 and 2007. In the chart below, you can see the predominantly rural regions of the European Union, made by Eurostat for 2010.

#### Rural in Romania

At the level of 2005, 46.3% of Romanians lived in rural areas, increasing compared to the 2002 census of 44.8% similar to that of some African countries such as Zambia, Angola, Jamaica according to a study conducted at that time by the WORLD BANK. It is noteworthy that that share was growing even higher than the 1990 level of 45.7%.

Figure 2. Rural/urban environment: degree of ruralization in Romania, by counties.



Source: Eurostat

In the graph above, it can be seen that in the period 1992-2002 the rural population increased. At last census backed to 2011, the National Institute of Statistics expressed concern about the lack of homes in rural areas. How many rural Romanians found a job in 2011?

ANOFM answers according to the web pag [www.realitatea.net](http://www.realitatea.net) Approximately 145,000 Romanians from rural areas have found a job, which means a percentage 30% lower than those from urban areas. Thus, a ranking by counties of the number of people from villages who found a job last census(2011) would look like this:

Table 1: Top rural employment 2011

Ranking	Top rural employment 2011	Top few jobs 2011
1	Suceava - 9.800	Covasna-975
2	Neamț - 9.200	Vrancea -1100
3	Timiș - 8.200	Mehedinti-1200
4	Prahova - 7.600	
5	Mureș - 6.600	
6	Iași - 5.400	
7	Buzău - 5.400	
8	Olt - 5.200	
9	Bihor- 4.600	
10	Dâmbovița - 4.500	

Source: Authors' own research.

While the percentage of employees is lower by 30% in rural areas than in urban areas, crime is found to have increased between 2005 and 2010 by 30 %; there are enough indicators that show a more than a downward trend in crime in rural areas.

### **The urban in Europe**

The urban area/city is defined as a populated area where no activities related to agriculture take place. The city has a legal status provided by the government and is associated with specific administrative forms. The city is defined as a complex form of human settlement with industrial facilities, usually having an administrative, industrial, political, commercial and cultural function.

### **Urban expansion in Europe**

The cities expand both vertically and horizontally (in Romania they expand more vertically) reducing the distances between them.

The European Environment Agency says that urban expansion continues rapidly and threatens the ecological, social and economic balance. The same agency claims that urban expansion in Europe reflects a new lifestyle and consumption pattern and not a growing population. The European Institute of Romania publishes a study conducted by various specialists dealing with urban expansion. According to him, one of the problems facing countries in the world is urban expansion. This phenomenon is mainly in developing countries. According to the website [www.realitatea.net](http://www.realitatea.net), the UN Department of Economic and Social Affairs (DESA) has revised its report



since 2011. It shows that urban areas of the planet will absorb world population growth in the next 40 years. The UN estimates that the world's population will increase in the coming years from 7 billion in 2011 to 9.3 billion in 2050, of which 6.3 billion will live in urban areas, an increase of 2.7 billion, or 75% of the current number.

### The urban in Romania

In 1930, Romania's population was 18 million. Of these, 80% lived in the country and only 20% in the city. With the communist industrialization, the urban population increased rapidly in 1960, so the urban population was 5.9 million people and 12.3 million in 1989. According to the website of the European structural funds, the urban population of Romania was in 2005 of 54.9%, which places our country among the least urbanized in Europe. Sociologist Mircea Kivu, as hot news tells us, following last census(2011), the most surprising news is the reversal of the trend of the evolution of the urban population, rural population ratio. The results of the last census show that the urban population decreased to 52.8, with a migratory flow from urban to rural areas. The counties with the highest degree of urbanization according to the preliminary results of last census(2011) seem to be:

- Hunedoara (by 74.1%),
- Brasov (by 71.2%),
- Constanța (by 67.9%),
- Cluj (by 65.9%),

The counties with the lowest shares of the urban population are:

- Giurgiu (by 27.9%)
- Dâmbovița (by 28.3%)
- Teleorman (by 31.3%),
- Neamț and Călărași (by 35.0%)

Next, we will look at the map with the GDP by counties at the level of 2011:

Figure 3. .GDP level by counties (2011)



Source: [www.econtext.ro](http://www.econtext.ro).

Looking at the map, we notice that the top counties in terms of urbanization are quite good in terms of GDP.

If we look at the percentage of counties coded to urbanization, we would think that people in these areas live in villages and deal with agriculture, beekeeping or other activities not specific to an urban area. Still, if we look at the map with GDP by counties above we find that the respective counties are weak and very weak in terms of GDP, so we can conclude that the non-urbanized counties coincide with those with a low GDP.



### Conclusions

The study unmasks that rural citizens find it harder to find a job compared to those in urban areas by less than 30%. Regarding urbanization in Europe and on the planet in general, massive urbanization is expected, which can have negative consequences in various forms. Unlike the general trend that emerges from various statistical studies, Romania registers an entirely different direction. Thus, while in other countries the degree of urbanization increased, in Romania the graphs showed the opposite, maybe also against the background of the economic crisis and poverty, the population being left without jobs and disposable income, who took refuge in the country, and started to make agriculture and animal domestication to survive the prevailing crisis. Also, the population that took refuge carries out subsistence agriculture mainly because it was advantageous to relocate without enough money at their disposal, which is also observed in the low GDP of the poorly urbanized counties.

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# Covid-19 pandemic and the employees experience: motivation of the staff within an event organizing company

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**Abstract:** Due to the COVID 19 pandemic, everyone must respect the rules of social distancing. During this time, most of the people have felt trapped in a continuous loop in which the concept of time and space was just a distant dream. Even if the economic situation during this pandemic is not so dramatic many people have been unmotivated to work, most of them, currently working remotely. Switching to on-line is more difficult to keep up with everyday work activities. However, many jobs can be successfully done remotely. Unfortunately, while working from home, the employees can be easily distracted, which lowers their productivity. Reaching a minimum level of motivation and productivity, we decided to include in this research paper a case study on the motivation of the artistic staff within an event organizing company

during the pandemic. By reviewing the results of the case study we want to analyze the specific factors of the human resources management that have an impact on the events organizing companies including the evolution of the motivation and introduce some ways that can grow the motivation and make employees feel comfortable while working from home.

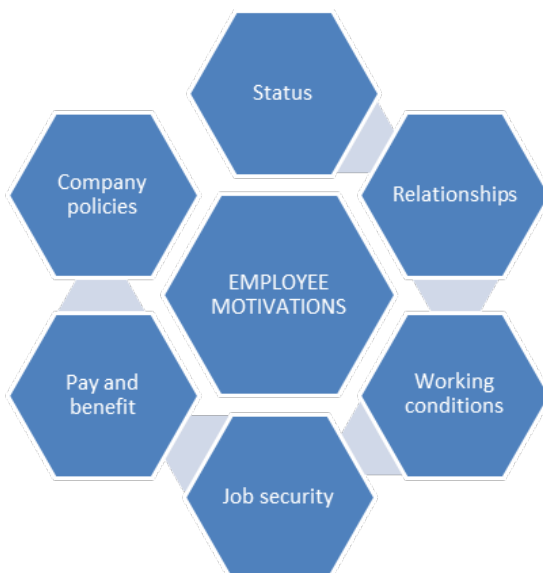
**Keywords:** Motivation, Pandemic, COVID - 19, Crisis, Productivity, Human Resource Management.

**JEL:** I260, M12.

## 1. Introduction

Abraham Maslow, a remarkable American psychologist, stated that all basic human needs can be classified as a hierarchy of needs. This ranking has five categories of basic needs: physiological, safety and security, social, self-esteem and self-actualization, which is another way to characterize self-fulfillment. Motivation results from people's desire to meet basic human and psychological needs. It drives all human behavior and is the degree of initiative, persistence and intensity of the effort spent by a person to achieve a specific result (Anon., 2014). Also, employees' motivation is not only intrinsic to talent management (Marinescu, Toma and Constantin, 2016) but also a prerequisite for any organization aiming at achieving business excellence (Toma and Naruo, 2017; Toma and Marinescu, 2018; Tohanean and Toma, 2018).

Figure 1: Workplace incentives - Employee workplace motivation factors



The coronavirus pandemic has led to social distancing and travel bans, fact that also affects the artists who are now forced to work remotely. The importance and effectiveness of virtual meetings should be emphasized, and employees will undoubtedly be more productive and happier at work, no matter how far away they may be. This must be done having in mind that clear information and instructions must always be provided (Southward, 2020).

UNESCO alarmed the fact that this COVID – 19 pandemic exacerbates education inequalities everywhere across the world. The current healthcare crisis has highlighted more than ever all these issues. “Responses to the Covid-19 crisis, which affected 1.6 billion children. That means 90% of the learners were affected by school closures globally” - UNESCO report entitled “Inclusion and education - All without exception”. The lack of technology devices and individual internet access has further highlighted the inequalities. Distance learning has not been possible for everyone. For example, in the poorest countries, only 12% of families have access to the Internet at home. Even where cutting-edge technologies were not required, pedagogical continuity could not be guaranteed. In Ethiopia, for example, among the poorest 20% of families, only 7 percent have a radio and none have a TV (Damian, 2020).

## 2. Literature review

Fun Science Romania is a franchise specialized in organizing educational - fun events for children between 4 and 14 years old. This franchise has been operating in Romania since 2005 and it's one of the many companies that are radically affected by the COVID 19 pandemic crisis and the bans that closed the events market.

“The crazy teachers” from Fun Science Romania are committed actors, who put their imagination, talent and creativity in the service of popularizing science, respecting a complete and complex methodology specific to the franchise. So their options for creativity and improvisation normally takes place between the requirements and constraints of the methodology imposed by the franchise.

the time of writing this research paper, we are already over 9 months away from the point where the whole world and everything that was known to us has changed major. 2020 is the year in which the pandemic caused by COVID-19 changed the paradigm of the evolution of the event organizing industry, literally, overnight. Considering this context, in which all the initial landmarks were dissipated under the new conditions established and imposed by the safety and health norms the functionality options of an event organizing company such as Fun Science Romania, have known new requirements and new constraints. Creative thinking, innovation and motivation of artists are resulting from the support, ability and empathy of those who see the artists perform.

At the initial moment of lockdown, not only the professional life of the employed artists was hit by a wave of confusion, but the entire management system of the organization was losing its orientation in its habitat of existence and action. According to the SWOT analysis, among the immediate threats to which the organization can be exposed, were identified: lack of demand in the events market, collapse of an entire market sector caused by the law prohibiting the type

of activities carried out by Fun Science Romania. In response to this situation, in an attempt to reduce the threats, the organization's management selected during the lockdown the Maxi-Min strategy (Strengths-Threats). Some of the strengths that were listed are a strong presence on social media, well-trained staff qualified and an extremely well-defined brand identity (Stoica, 2020).

A concern that was raised in the beginning was related to what motivational strategy can be approached in order to mobilize and involve artistic staff in the immediate action plan of the organization given the full economic, health and psychological instability created by the pandemic.

Starting from the Maxi-Min approach, as a result of an already existing presence on social media (a YouTube channel called "Crazy Teachers" with over 80,000 subscribers at that time), a brand very well perceived in the market, along with a staff well qualified. In the context of a total closure and the prohibition of any type of event, it was decided to carry out the full lockdown of daily video content in the form of live shows for children watching from home. The challenge came from the fact that all the action was carried out by Fun Science Romania staff without remuneration. There were 45 daily live shows (Monday-Friday) lasting 30-40 min. The results obtained can be seen in the table below (Table 1).

*Table 1 Fun Science Romania, comparative table*

From year to year (March - October)	Subscribers	Views	Hours spent watching "Profesorii trasniti"
(Crazy teachers) YouTube channel			
2019	2105	217.348	7387
2020	3617	445.510	18948

*Source: YouTube analytics*

In response to the concern raised above, the conceptual framework SDT (Self Determination Theory) was approached, which revealed from the research developed by Edward L. Deci and Richard Ryan (Deci, 1985) on the effects of intrinsic and extrinsic motivation on human behavior.

Among the influencing factors of human resource management, employee motivation is one of the most representative factors of the event organizing companies, but also for other types of companies and systems. The main feature of motivation is the existence of a goal that needs to be achieved. Self-determination consists in the free choice to do an action. It is a way of exercising self-control. In a context of free choice, the person chooses his task and the type of approach. Spontaneity, curiosity and interest are both basic features of the actors and characteristics of the model of self-determined behavior as an intrinsically motivating action.

### 3. Research methodology

Different publications and scientific articles were consulted for this study which show the importance of motivation for employees during a crisis. The method approached in this paper is the case study and bibliographic research in databases. We searched into many sources like articles, books and reports. Other sources were the archives of different journals.

The method used is a descriptive and quantitative one, using information provided by direct observation and by internet tools.

#### 4. Results and discussions

People feel motivated not only when they have the freedom to choose an activity, but also when they consider themselves competent and accepted.

The social environment pushes human resources management to offer support by self-determination (intrinsic action) when it supports the fulfillment of three psychological needs:

- The need for autonomy (the person decides what and how to do);
- The need for performance (the person's tendency to do something efficiently, his need to feel able to influence the environment).
- The need for relationships (the need to build and maintain relationships, secure and satisfying connections in the social environment) (Deci, 2000)

Table 2: Motivation for Fun Science Romania employees during the pandemic crisis

The need for intrinsic motivation	Motivation of the Fun Science Romania employees during the lockdown period	The need for extrinsic motivation	Motivation of the Fun Science Romania employees during the lockdown period
The need for autonomy	The actors performed the tasks separately from home, at their own pace, according to their own program.	External regulation	The enthusiasm with which they were received, daily by the following audience, was a strong motivational stimulus.
The need for performance	The artists were asked to personalize the video content.	Introjection	The routine and the expectations created among the following audience created the feeling of obligation to keep their promise and do more live shows.



The need for relationships	Throughout the isolation period, the team of actors was in constant online interaction both with the audience of Fun Science Romania and with each other. This ensured a continuous relationship in the work environment, diminishing the feeling of loneliness caused by the constraints of the lockdown.	Identification	The lockdown created a context of unity and community. The Fun Science Romania audience represented by children was affected by the pandemic and their need for natural continuity of their lives led to the feeling of a personal mission. Fun Science Romania employees are aware of the future positive consequences of their direct involvement during this pandemic crisis.
		Integration	Each employee felt that he was having a direct contribution using his talent, skills and training in overcoming an exceptional situation in which the children suffered the most.

Source: Authors' contribution

Regarding the extrinsic motivation during which there is a tendency to gradually approach the intrinsic motivation:

- External regulation: the person is completely motivated by external stimuli (does not perform his tasks because of the fear of punishment) and does not self-discipline;
- Introjection: the source of control still remains external, gradually becoming internalized, although the connections are not in accordance with the person's desire (motivated to perform the assigned tasks because otherwise he would feel guilty for not fulfilling the duties);
- Identification: the person does a task because he estimates important outcome in the future. By doing the task the motivation increases. Identification is an internal regulation based on the need for a behavior (for example, the human performs additional tasks to gain greater notoriety);
- Integration: the humans engage in activities because they fit their goals and aspirations. Motivation is very close to the intrinsic one, but it is not actually identified with it.

## 5. Conclusions

The results of this research paper showed that, in the absence of an intervention plan in case of a crisis, an alternative of rapid adaptation to a new context arises from a deep knowledge of the internal and external environment of the organization. Giving the current status of the pandemic the best action plan is to take decisions step by step, week by week until the exit from the crisis.

Employees are always the basic resource of an organization. The relation between human resource management and employee satisfaction, accomplishment of companies or systems objectives is based on keeping high motivation during critical periods, and is a key to the adaptation, continuity and even survival of the organizations. This could be adapted to the health sector.

Internal motivation like choosing their one schedule, creativity, communication with colleagues and audience, and, in the same matter, external motivation such as good feedback from children watching the online shows, willing to perform without remuneration, a sense of responsibility for the children and their education are the key to continue the activity despite all the lockdown measures taken by the authorities.

In this game, both parts are winning, employees on one part, by improving their skills and keeping in touch with the audience, and on the other part children who were used to live shows, but have to adapt to new ways of learning and entertainment.

We would like to emphasize that the need for intrinsic motivation has become a lifeline for both the organization and the staff involved in such a turbulent and uncertain period as the isolation of the entire planet at home.

The involvement of "Self-Determination" in this crisis situation that took the company by surprise was a choice that mobilized and united the team around overcoming the toughest obstacle in the company's history.

We notice that the organization appealed to the type of moral motivation from the perspective of serving a superior cause, that of offering children moments to help them adapt to the new conditions of existence during a pandemic.

We add as recommendations two directions of interest for the organization's staff, from a professional perspective, such as continuous staff training, educating them in the spirit of the new requirements arising from online interaction and from the perspective of material reward and safety at work

In terms of continuing education, the organization could offer training courses in order to accumulate new technological skills: the use of equipment necessary for online activities (how to organize a mini video studio at home), the use of several types of programs online interaction software and applications, introduction to video editing and editing.

Given the extremely vulnerable period from an economic and health perspective, a direction that should not be neglected and that we are advancing with confidence, is the one in which the organization must be concerned with recognizing and rewarding the most involved in the team.

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