



FACULTY OF FINANCE - ACCOUNTING

**THE JOURNAL
CONTEMPORARY ECONOMY**
Volume 6, Issue 2/2021

**REVISTA ECONOMIA
CONTEMPORANĂ**
Vol. 6, Nr. 2/2021

**"Independența Economică" Publishing
2021**

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“Constantin Brâncoveanu” University, Faculty of Finance-Accounting.
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Pitești, Calea Bascovului no. 2A, Argeș County, Romania, Phone/Fax: +00248-216427.
The Journal is currently indexing in the following international databases:
EconPapers (RePEc), IDEAS, BASE, SCPIO, OAJI, ResearchBib,
CEEOL (Central and Eastern European Online Library),
Index Copernicus International – ICI Journals Master List.

The views expressed in these articles are the sole responsibility of the authors.
ISSN 2537 – 4222, ISSN-L 2537 – 4222

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The article will be sent to:

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CONCEPTUAL BOUNDARIES BETWEEN SUBJECTIVITY, CREATIVITY AND A RELIABLE IMAGE OF FINANCIAL STATEMENTS

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Abstract: *The aim of this empirical study is to draw the line between the often unavoidable subjectivity of the professional accountant, and the creativity he has and cautionary employs in preparing and/or certifying financial statements. We turn our attention to the sensitive points of the financial statements, such as the classification of short-term or long-term loans, the recognition of written off debt versus income, or the restatement of uncertain receivables. We wish to clarify the accuracy of financial statements, the extent to which they are influenced by the creativity of the professional accountant and the extent to which the professional's subjectivity affects the decisions of users of accounting information. The purpose of this article is to answer some of the inherent questions which weigh on us, such as: How do we mitigate the damage caused by financial statements whose accuracy has been affected, knowingly or unintentionally? How can we ensure a high degree of confidence in our financial statements? The responsibility for ensuring the conformity and quality of the information presented lies solely with the professional accountant who, by using well-known techniques and methods, which have been adapted to each client, is able to generate highly precise financial statements. The results of the study will indicate the factors that can influence the reliability of the patrimonial image and the implications on the accuracy of financial statements, having the role of leading us in a new direction of research: the possibility of labeling and marking highly precise financial statements.*

Keywords: *professional accountant, professional thinking, financial statements, reporting standards, reliability.*

JEL Classification: *M40, M41.*

1. Sensitive aspects of the financial statements

1.1. The classification of long-term or short-term loans, recognition of prescribed debts to income, restatement of uncertain receivables

The boundary between the subjectivity and creativity of the professional accountant, the prudence used in the preparation and/or certification of financial statements.

Financial statements provide significant information to the business environment, to external users. A detailed analysis of them allows for obtaining certain important details, which lead to the development of the company's activity in order to grow and develop. To this end, forecasts can be made based on the financial and economic history, forecasts that lead to a decrease in the degree of uncertainty on the part of these users and which can produce changes both at the microeconomic and macroeconomic levels.

As long as these companies understand the importance of the quality of financial statements is, they will also understand the needs of external users to receive accurate, highly reliable information. Because any investor or user who has invested in that company is directly interested in detailed reports, in line with reality, so as to provide a smooth running of partnerships.

The financial statements are at the meeting point between three main parts: the companies that are the object of these situations represented by managers, the users (we

mention here investors, shareholders, banks, authorities and last but not least the population) and the professional accountant, one of the essential links. Improving the content of financial statements and the credibility of accounting information is attributed to the accounting profession (Berheci, 2006).

Following research and professional experience, we have identified certain sensitive points of the financial statements, among which we recall:

The way in which we classify **short-term or long-term loans**, that is, in particular, a short-term loan agreement of up to one year, concluded with an associate. How should these loans be considered when overdue? How can certain economic and financial indicators be changed by the erroneous classification, intentionally or not, of these loans. Moreover, if the loan is in a foreign currency, the classification may also affect the tax deductibility of exchange rate differences.

Another sensitive point could be the recognition of prescribed debt to revenue. We refer here to debts to suppliers.

Civil Code, art. 2500 shows that the material right to action, hereinafter referred to as the right to action, is extinguished by prescription, if it has not been exercised within the term established by law. The right to action means the right to compel a person, with the aid of public force, to perform a certain service, to comply with a certain legal situation or to bear any other civil sanction, as the case may be (Civil Code, 2500).

From an accounting point of view, "Point 328 of OMFP 1802/2014 shows that when deducting from the record the receivables and debts whose collection or payment terms are prescribed, the entities must prove that all legal steps have been taken to settle them" (OMFP 1802, 2014).

Another accounting point of view, "Point 28 of Law 2861/2007" regulating the **inventory of assets** shows that receivables and liabilities to third parties are subject to verification and confirmation based on statements of debit and credit balances of accounts receivable and debt that have a value in total balances of these accounts, according to the "Account Statement" (code 14-6-3) or mutual written scores. Failure to comply with this procedure, as well as the refusal to confirm, constitute deviations from the present norms and are sanctioned according to the law (Updated Inventory Law, 2007).

Thus, the professional accountant, by not treating these debts in the situation of prescription to the category of income, can generate fiscal consequences, by increasing the taxable income and, implicitly, the profit or income tax.

Regarding the **restatement of uncertain receivables** "according to the accounting rules", the valuation rules are very clear and provided by law. The valuation of receivables is mandatory at their probable collection value, during the inventory of the patrimony, at the end of each financial year. In the inventory, the principle of prudence will be taken into account, which stipulates that the entities must take into account all depreciations, regardless of whether the result of the financial year is a loss or a profit. Thus, adjustments for the impairment of receivables are recognized when the inventory value (at the inventory of the patrimony) is lower than the accounting one (at the invoicing). For uncertain receivables, adjustments must be made for the loss of value, at the level of the amount that can no longer be recovered" (Grecu and Grebliș, 2018).

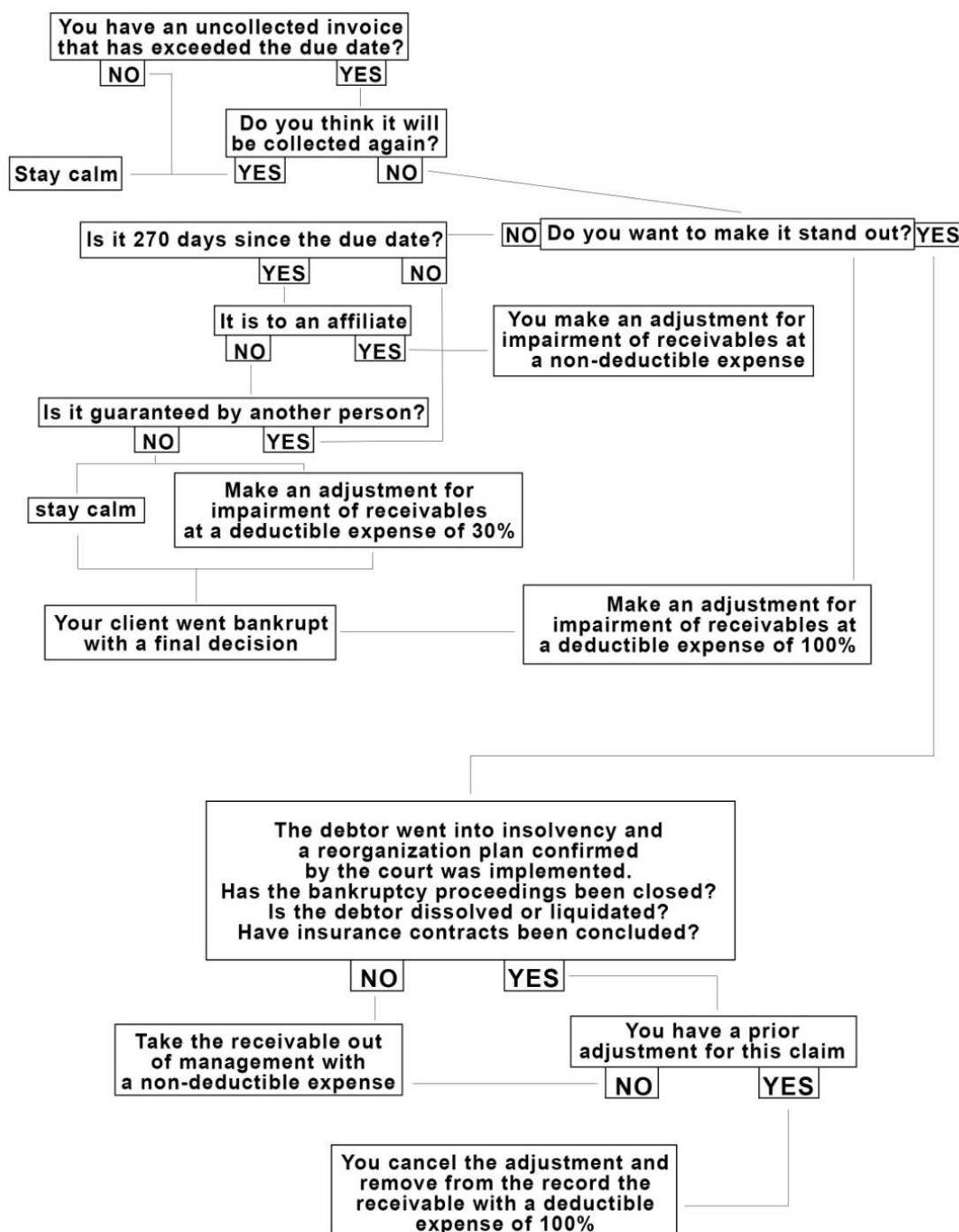


Figure no. 1. Adjustment of uncollected receivables

Source: accountantsgroup.ro- Grecu and Grebliș

OMFP 1802/2014 stipulates that the amounts related to **uncertain receivables** must be recorded separately in account 4118 "Uncertain or disputed customers" assigned for customers, and in the case of other receivables, using analytical accounts of those receivables' accounts. However, there are cases in which the professional accountant does not use these adjustments, even if at the date of preparation of the financial statements they find that they will not recover the value of the receivables, they do not record these depreciations that are required due to tax deductibility. We are referring here specifically to corporate taxpayers.

1.2 A comparative analysis of financial statements

The main objective of the annual financial statements is to provide information about the financial position of the entity at a given time, the financial performance and cash flows of the entity, information useful to a wide range of users.

We present below the comparative study of the balance sheet items on the basis of which we calculate the main economic-financial indicators, before and after corrections.

Table no. 1. Comparative financial situation as of 31.12.2020

Item no.	Name	Balance at 31.12.2020 before corrections	Balance at 31.12.2020 after corrections
1	A. FIXED ASSETS		
2	I. INTANGIBLE FIXED ASSETS	2,802	2,802
3	II. TANGIBLE FIXED ASSETS	29,288	29,288
4	III. FINANCIAL ASSETS	0	0
5	FIXED ASSETS – TOTAL	32,090	32,090
6	B. CURRENT ASSETS		
7	I. STOCKS	79,890	79,890
8	II. RECEIVABLES	468,662	246,110
9	III. SHORT-TERM INVESTMENTS	0	0
10	IV. HOUSE AND BANK ACCOUNTS	119,353	119,353
11	CURRENT ASSETS - TOTAL	667,905	445,353
12	C. ADVANCE EXPENSES	404,191	404,191
13	D. DEBTS: AMOUNTS TO BE PAID IN A PERIOD OF UP TO ONE YEAR	756,202	356,614
14	E. NET CURRENT ASSETS / NET CURRENT LIABILITIES	315,894	492,930
15	F. TOTAL ASSETS MINUS CURRENT DEBT	347,984	525,020
16	G. DEBTS: AMOUNTS TO BE PAID IN A PERIOD OVER A YEAR		186,000
17	H. PROVISIONS		89,416
18	I. INCOME IN ADVANCE		
19	J. CAPITAL AND RESERVES		
20	I. CAPITAL	5,200	5,200
21	II. CAPITAL REWARDS		
22	III. REVALUATION RESERVES		
23	IV. REZERVES	1,040	1,040
24	V. REPORTED PROFIT OR LOSS	145,114	145,114
25	VI. PROFIT OR LOSS FOR FINANCIAL YEAR	196,630	98,250
26	EQUITY - TOTAL	347,984	249,604
27	CAPITAL - TOTAL	347,984	249,604

In order to investigate the influence of the professional accountant's interpretation of the assets (long-term loans, uncertain receivables, overdue debts) on the balance sheet items and financial indicators, we will analyze the case of a company based on the financial statements prepared at 31.12.2020.

In this study, the company had received a loan from associates amounting to 186,000 Lei on 10.02.2017 with a repayment term of one year, but which was not repaid at

maturity. Out of the total receivables of the company, the amount of 311,968 Lei represents uncertain receivables. At the annual inventory of the patrimony, it was found that the amount of 222,552 Lei can no longer be collected because the clients have completed the simplified bankruptcy procedure, and for the difference of 89,416 Lei a provision for litigation should be constituted. Also, once the inventory was performed, it was found that the amount of 213,588 Lei represents the prescribed debt of the company to the suppliers, with the recommendation to be transferred to income.

1.3 Interpreting results based on economic and financial indicators

Knowing the level of economic-financial indicators of an economic entity allows comparisons with other entities in similar sectors of activity, domestic or international. In the present research, we aimed to highlight the influence of professional reasoning and the application of accounting rules and policies on the economic **performance indicators** of the analyzed entity

From the multitude of economic-financial indicators that can be calculated based on the data contained in the financial statements, we have selected the main indicators that an economic entity should calculate when it wants an analysis of assets and economic performance. The interpretation of these indicators highlights the risk of insolvency of the entity if the professional accountant makes the corrections mentioned above.

Table no. 2: A comparative presentation of the main financial analysis indicators

Indicator	Calculation formula	Pre-correction values	Post-correction values
Current liquidity	Current assets/Current liabilities	0.88	1.25
Fast rate (acid test)	(Current assets-Stocks)/Current liabilities	0.78	1.02
Degree of indebtedness	(borrowed capital/equity)*100	0%	74.52%
General solvency	Total assets/current liabilities	0.93	0.13
Financial profitability (ROE)	Net profit/equity	0.57	0.39
Asset rate of return (ROA)	(Net profit/Total assets)*100	28.09%	20.57%

- ❖ A first influence of the corrections on the **liquidity indicators** is highlighted in the current liquidity. This indicator reflects the ability of current assets to be converted into liquidities in a short time to cover current liabilities. After the corrections, the value of short-term debts increased, thus leading to an increased ratio between themselves and current assets, thus guaranteeing the coverage of current debts from current assets, a situation that is much more favorable to society than before the corrections.
- ❖ The second influence is reflected by the **acid test**, eliminating stocks as they cannot immediately turn into availabilities. Literature recommends a value higher than 1, and in the case analyzed only after making corrections, the entity proves its ability to cover its debts.

- ❖ The degree of indebtedness is directly influenced by **long-term debts** and reflects the entity's risk of being unable to pay its debts, its maximum allowed value being 30%. After applying the correction in the case of long-term reconsidered associates' loans, a very high degree of indebtedness results, which shows an increased risk of insolvency, a situation unfavorable to the company.
- ❖ **The general solvency ratio** was calculated, in order to correctly quantify the risk of non-payment of debts to which the analyzed entity is subject. After the corrections, the solvency decreased significantly, thus showing that the entity is approaching bankruptcy.
- ❖ **The financial profitability of the entity**, measured with the ROE indicator highlights the return on equity and should have values over 5%. In the analysed case, it cannot be stated that the activity carried out within the company was efficient from the point of view of the return on equity, the ROE value being subunitary both after the corrections, as well as prior to them.
- ❖ **The rate of return on assets measures** the efficiency of the use of assets, from the point of view of the profit obtained and shows how many Lei a Leu invested in assets generates in the form of profit. According to the case study above, the economic entity is in the safety range, respectively for every one Leu invested in assets, the company obtains in the form of profit 28 Lei if no corrections are made, respectively 20 Lei with the corrected situations.

2. A new label of financial statements

2.1 The degree of trust

Our proposal consists of creating a matrix that allows the calculation of values based on well-established criteria, each criterion being assigned a degree of importance depending on the influence it has on the accuracy of financial statements. The final goal is to calculate a score based on which the financial statements of a company are included in one of the **4 degrees of confidence**.

The proposed criteria for the formation of the matrix and their weight in the calculation of the score:

- ✓ *the rate of automation and digitization of the accounting system* - 15% (values from 1 to 10 are given, 10 representing complete digitization)
- ✓ *the certification of accounting statements by a professional accountant*, CECCAR member: 15% (0 points are awarded for the preparation of financial statements by a non-CECCAR employee, 5 points for the preparation by a CECCAR member who is also an employee of the company and 10 points for certification by an independent CECCAR member)
- ✓ *the certification of the financial statements by a financial auditor*, CAFR member: 15% (10 points are awarded only if the financial statements are accompanied by the independent auditor's report)
- ✓ *the existence of an internal control system*: 10% (10 points are awarded if the administrator's statement proves its existence)
- ✓ *the existence of an internal audit*: 10% (10 points are awarded if the administrator's statement shows its existence)
- ✓ *application of international financial reporting standards*: 10% (10 points are awarded if the IFRS applies to the administrator's statement)
- ✓ *the entity's shares are traded on the capital market*: 10% (0 points for those traded, 10 points for those not traded)

✓ *the degree of trust obtained by the company in the previous year:* 10% (0 points for a limited degree or lack of trust, 5 points for a medium degree, 10 points for a high degree of confidence previously obtained)

✓ *the number of litigations in which the company is involved:* 5% (values from 1 to 10, 0 points are awarded if more than 10 litigations are registered, 10 points for less than 3 litigations)

Depending on the score obtained, the following grades can be obtained:

- **High degree of confidence**, with a score over 90
- **Average degree of confidence**, with a score between 75 and 90
- **Limited degree of confidence**, with a score between 45 and 75
- **Lack of confidence**, with a score below 45

2.2 The role of the professional accountant in ensuring the degree of trust

The professional accountant is the person who, according to the Government Ordinance no. 65/1994, has passed the entrance exam, completed the three-year professional training internship and passed the aptitude exam at the end of the internship, organized according to the regulations issued by the Body of Expert Accountants and Certified Accountants of Romania (CECCAR).

Based on the professional reasoning intertwined with the experience and knowledge of economic-financial analysis, evaluation, control, audit, informatics, strategic management, professional ethics, the professional accountant capitalizes on the information in the interest of the company.

The defining characteristic of the accounting profession is the acceptance of responsibility and risk-taking in substantiating decisions based on knowledge and in accordance with the legislation in force.

International education standards require professional accountants to acquire and maintain the skills of ethics and deontology in achieving the main objective of meeting the requirements of the public interest through professionalism, trust, credibility, ensuring the highest quality standard for all missions, especially that of certifying financial statements.

According to the National Code of Ethics for Professional Accountants, they must observe the following fundamental principles: integrity, objectivity, professional competence and prudence, confidentiality, professional conduct and respect for technical and professional norms.

Professional accountants must comply with the relevant legislation and professional and technical norms issued by: International Federation of Accountants (IFAC), International Accounting Standards Board (IASB), CECCAR, the Chamber of Financial Auditors in Romania (CAFR).

3. Conclusions

The main objective of this research was to establish how the subjectivity of the professional accountant or his creativity affects the accuracy of financial statements. The question to be answered is whether an entity's financial and economic performance indicators are influenced by professional judgment and whether the application of specific international standards and professional standards would lead to increased confidence in financial statements.

Therefore, this study showed us that professional accountants have a major **role** in ensuring the quality of financial statements, but also the fact that more creativity or subjectivism can distort the true image of assets. To support users of financial statements, we have proposed a grid for evaluating them to determine the **degree of confidence** that an entity's financial statements can gain.

Also, the defining characteristic of the accounting profession is the acceptance of responsibility and the assumption of risks in the substantiation of decisions based on knowledge and in accordance with the legislation in force.

The information provided adds **value** to the entity and the way in which this added value is measured depends on it.

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Abstract: The development of this article started from the need to suitably determine the result of the exercise of the economic entities in our country. The result of the exercise is one of the most important indicators when analyzing an entity that carries out economic activities. In our country, taxation prevails over accounting and, for this reason, it is very important to be able to make a correct interpretation of the result of the activity. In the following we will follow the way in which the expenses and incomes are grouped from the fiscal point of view and how they are taken into account when determining the fiscal result. We will also analyze, in addition to expenses and income, the other elements taken into account in determining the tax result such as: items similar to income, items similar to expenses, tax deductions, and tax loss. For a more complete analysis, we will also treat the deductions from the profit tax due.

Keywords: income, expenses, tax deductions, tax result, profit tax.

JEL Classification: M41.

1. Introduction

In relation to the fiscal result of the exercise and, implicitly, to the profit tax, we must consider the following items:

- taxable persons and the scope of corporate income tax;
- methodology for calculating the fiscal result;
- determining the due profit tax.

In carrying out the planned approach, it is crucial to treat things in the light of the provisions of the Fiscal Code, represented by Law 227/2015, updated, with subsequent amendments and completions.

2. Taxable persons and the scope of the profit tax

The scope of the profit tax includes the following persons and sources generating the taxable profit:

Taxable persons	The Scope
Romanian legal entities Foreign legal entities with the place of exercising the effective management in Romania Legal entities with headquarters in Romania, established according to the European legislation	Taxable profit obtained from any source, both in Romania and abroad
Foreign legal entities with permanent headquarters/several permanent offices in Romania	Taxable profit attributable to the permanent headquarters/at the level of the permanent headquarters designated to fulfil the fiscal obligations
Foreign legal entities that obtain income from: <ul style="list-style-type: none">• the transfer of real estate located in Romania or of any rights related to these properties, including the rental or assignment of their use,	<ul style="list-style-type: none">• income obtained from the transfer of real estate located in Romania or of any rights related to these properties, including renting or assigning their use

<ul style="list-style-type: none"> • exploitation of natural resources located in Romania, • sale-assignment of the participation titles held 	<ul style="list-style-type: none"> • revenues from the exploitation of natural resources located in Romania • income from the sale-assignment of participation titles held in a Romanian legal entity
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Source: processing from Law 227/2015 - Fiscal Code

Regarding the tax period, as a general rule, it is represented by the fiscal year, which corresponds to the calendar year, unless a taxpayer is established or ceases to exist during a fiscal year. In this case, the taxable period is the period of the calendar year for which the taxpayer existed.

3. The methodology for calculating the fiscal result

When determining the fiscal result, for the purpose of taxation, we follow the relation:

$$\begin{aligned}
 & \pm \text{Accounting result} \\
 & - \text{Non-taxable income} \\
 & + \text{Non-deductible} \\
 & \text{expenses} \\
 & - \text{Tax deductions} \\
 & - \text{Items similar to} \\
 & \text{expenses} \\
 & + \text{Items similar to income} \\
 & - \text{Tax loss} \\
 \hline
 & = \text{Fiscal result}
 \end{aligned}$$

The activities carried out by economic entities are both “producers” and “consumers” of economic resources. These reports concern the result of the entity, for whose determination the terms *income* and *expenses* are used. According to OMFP 1802/2014 for the approval of the Accounting Regulations on individual annual financial statements and consolidated annual financial statements, revenues and expenses are defined as follows:

- **Revenues** are increases in economic benefits recorded during the accounting period, in the form of inflows or increases in assets or reductions in liabilities, which result in increases in equity, other than those resulting from shareholder contributions;
- **Expenses** are decreases in economic benefits recorded during the accounting period in the form of outflows or decreases in the value of assets or increases in liabilities, which result in reductions in equity, other than those resulting from their distribution to shareholders.

By comparing the income obtained with the expenses incurred to obtain them, the result can be profit or loss:

- **Profit**, when the revenues obtained are higher than the expenses incurred;
- **Loss**, when the income obtained is lower than the expenses incurred.

As a result, the equation of the result of the exercise is:

$$\text{Accounting result for the exercise} = \text{Revenues for the exercise} - \text{Expenses for the exercise}$$

All *income* obtained by an entity falling within the scope of corporate income tax is taxable, except for those that are expressly mentioned in the Tax Code as non-taxable, including:

- dividends received from a Romanian / foreign legal entity paying profit tax / tax similar to profit tax; *
- income from the sale / assignment of participation titles held by a Romanian legal entity / a foreign legal entity; *
- income from the liquidation of a Romanian legal entity / foreign legal entity; *
- the value of new equity securities or the amounts representing the increase in the nominal value of the existing equity securities recorded as a result of the incorporation of the reserves, benefits or issue premiums into legal entities in which equity securities are held:
 - taxable on the date of the free transfer, transfer, withdrawal of share capital or liquidation of the legal entity in which the participation titles are held;
- income from:
 - cancellation of expenses for which no deduction was granted;
 - reduction or cancellation of provisions or adjustments for which no deduction has been granted;
 - recovery of non-deductible expenses;
 - refund or cancellation of interest and/or late payment penalties for which no deduction has been granted;
 - cancellation, recovery, including re-invoicing of expenses for which no deduction was granted;
- income representing increases in value resulting from the revaluation of the fixed assets, land, intangible assets, as the case may be, which compensates the expenses with the previous decreases related to the same asset, etc.
- compensations received based on ECHR decisions;
- incomes registered from a foreign state, in the context of applying the provisions of a Double Taxation Avoidance Convention concluded between Romania and the respective foreign state, and the respective convention provides as a method of avoiding the double taxation the *exemption method*;
- the amounts received as a result of the refund of the share of the contributions of the shareholders/associates, on the occasion of the reduction of the share capital, etc.

* Conditions that must be met by the foreign legal entity from which the income is obtained, in order for them to be non-taxable in our country:

- the foreign legal person is from a state with which Romania has concluded a Convention for the Avoidance of the Double Taxation,
- on the date of registration/sale/assignment, the taxpayer holds, as well, for an uninterrupted period of 1 year at least 10% of the share capital of the legal entity in which he/she holds the participation titles/subject to the liquidation operation.

In order for the dividend income to be non-taxable, the Romanian legal entity that receives the dividends must hold:

- the certificate of attestation of the fiscal residence of the foreign legal person, issued by the competent authority from the state of residence;
- statement on one's own responsibility stating that he/she is a payer of tax/tax similar to the profit tax in the third country;
- documents proving the fulfilment of the condition of holding, for an uninterrupted period of 1 year, at least 10% of the share capital of the legal entity that distributes dividends.

In order to determine the fiscal result, the **expenses** incurred by the entities carrying out the economic activity are divided into three categories: deductible expenses, expenses with limited deductibility and non-deductible expenses when calculating the profit tax.

Deductible expenses are those incurred for the purpose of carrying out the economic activity, including those regulated by the regulations in force, as well as registration fees, dues and contributions due to the chambers of commerce and industry, employers' organizations and trade unions.

Expenses with limited deductibility, when calculating the fiscal result, are represented among others by:

- protocol expenses, which are deductible at a rate of 2% applied to the equation: (Accounting result + Protocol expenses + Income tax expenses + VAT for what exceeds 100 lei in the case of protocol expenses)
- social expenses, which are deductible at a rate of 5% applied to staff salary expenses, provided that they are regulated by a collective labour agreement;
- expenditure on motorized road vehicles which are not used exclusively for the purpose of economic activity, which are deductible at a rate of 50%, provided that these vehicles have a maximum authorized total mass not exceeding 3,500 kg, a maximum of 9 seats, including the driver's seat, and be owned or used by the entity, etc.

The non-deductible expenses, when calculating the fiscal result, are represented among others by:

- income tax expenses;
- expenses related to non-taxable income;
- expenses in favour of shareholders or associates;
- sponsorship expenses;
- expenses incurred without supporting documents;
- expenses with fines, penalties, interest on arrears due to the authorities of the Romanian state or of another state, etc.

Tax deductions represent the amounts that are deducted when calculating the tax result and which are neither taxable income nor deductible expenses recorded in the period for which the calculation is made, being represented, among others, by:

- the legal reserve, which is determined by applying a rate of 5% on gross profit before tax (i.e., accounting result + income tax expense) and which is limited to a maximum of 20% of the value of the share capital;
- deductions for research and development expenses;
- tax depreciation;
- excess costs of the deferred debt.

The Tax Code lists a number of examples representing **income-like elements**, including:

- favourable exchange rate differences, resulting from the valuation of receivables and payables in foreign currency, recorded in the accounting records in the result carried forward, as a result of restatement or transposition, according to the applicable accounting regulations;
- reserves from the revaluation of fixed assets and intangible assets;
- the amounts registered in the credit balance of the account. The result carried forward from specific provisions, representing the reserves that have become taxable, etc.

The Tax Code lists a number of examples of **expenditure-like elements**, including:

- unfavourable exchange rate differences, resulting from the valuation of receivables and payables in foreign currency, recorded in the accounting records in the result carried forward, as a consequence of the restatement or transposition, according to the applicable accounting regulations;
- the unamortized value of the development expenses that was recorded in the carried forward result;
- the loss recorded at the date of the sale of the own participation titles representing the difference between the sale price of the own participation titles and their acquisition/redemption value, etc.

The negative tax result is a tax loss. The uncovered **tax loss** is carried forward and will be recovered from the positive results of the future exercise(s).

For a better understanding of the mechanism for determining the fiscal result we will start from the case study in which S.C. Bruno S.R.L. presents at the end of 2020 the following statement of expenditure and revenue:

- lei

Elements	TDA	TCA
Expenditure, total out of which:	1,067,000	
601 Expenditure on raw materials	230,000	
6022 Fuel expenses	20,000	
605 Energy and water expenditure	30,000	
607 Expenditure on goods	270,000	
613 Expenses with insurance premiums - company building insurance	35,000	
6231 Protocol expenses	8,000	
6232 Advertising and publicity expenses - company	6,000	
624 Expenditure on transport of goods and persons	6,000	
626 Expenditure on postal and telecommunications charges	7,000	
627 Banking services expenses	6,000	
628 Expenses with other services performed by third parties	120,000	
6351 Expenses with other taxes, fees and similar charges (local taxes)	9,000	
641 Expenditure on staff salaries	160,000	
646 Expenditure on employment insurance contribution	4,000	
6581 Compensation, fines and penalties - paid to control bodies	8,000	
6583 Expenses on assigned assets and other capital operations	15,000	
6584 Sponsorship expenses	5,000	
6588 Other operating expenses - without supporting documents	3,000	
6811.1 Operating expenses regarding the depreciation of fixed assets - building	65,000	
6811.2 Operating expenses regarding the depreciation of fixed assets - equipment	25,000	
6811.3 Operating expenses regarding the depreciation of fixed assets - means of transport	15,000	
691 Income tax expenses	20,000	
Revenue, total out of which		1,350,000
701 Revenue from the sale of finished products		360,000

704 Revenue from work performed and services rendered		320,000
707 Revenue from the sale of goods		550,000
7583 Income from the sale of assets and other capital operations		10,000
763 Income from financial fixed assets - dividends		80,000
7812 Income from provisions - other		30,000

The following information is also known:

- In the previous year the company purchased two cash registers in the amount of 1,500 lei each;
- The company owns 2 cars that are partially used for economic purposes and that were used throughout the year;
- It sold a machine with the price of 10,000 lei. The machine had a depreciable carrying amount of 50,000 lei and was tax depreciated until the time of sale for the value of 35,000 lei;
- Dividend income is obtained from a Romanian legal entity, in which it has held 12% of the share capital, for 2 years;
- The company has a share capital of 100,000 lei and a legal reserve constituted, in the amount of 12,000 lei.

We are looking to determine the profit tax due at the end of the year.

Proposed solution:

$FR = AR - NTI + NDE - TD - ISE + RLI - TL$, where:

FR = fiscal result

AR = accounting result

NTI = non-taxable income

NDE = non-tax deductible expenses

TD = tax deductions

ISE = items similar to expenses

RLI = revenue-like items

TL = tax loss

Accounting result: 283,000 lei

$AR = TI - TE$, where:

TI = total income

TE = total expenses

$AR = 1,350,000 - 1,067,000 = 283,000$ lei

Establishing non-taxable income: 110,000 lei

763 Income from financial fixed assets - dividends	80,000
7812 Income from provisions – other	30,000

Establishing non-tax deductible expenses: 156,730 lei

6022 Fuel expenses	10,950
6231 Protocol expenses	1,780
6581 Compensation, fines and penalties - paid to the control bodies	8,000
6584 Sponsorship expenses	5,000
6588 Other operating expenses - without supporting documents	3,000
6811.1 Operating expenses regarding the depreciation of fixed assets - building	80,000
6811.2 Operating expenses regarding the depreciation of fixed assets - equipment	25,000
691 Income tax expenses	20,000

The cost of cash registers is assimilated to the non-deductible expenses	3,000
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Calculation of deductibility of fuel expenses:

When purchasing fuel, it is accounted for as follows:

% = 401 Suppliers	<u>23,800</u>	
6022 Fuel expenses	20,000	
4426 Deductible VAT		3,800

Non-deductible VAT related to fuel expenses: $3,800 \times 50\% = 1,900$ lei

6022 = 4426 - 1,900

Total expenses regarding the fuel: $20,000 + 1,900 = 21,900$ lei

Determining deductible fuel expenses: $21,900 \times 50\% = 10,950$ lei

Determining non-deductible expenses regarding fuel: 10,950 lei

Calculation of the deductibility of protocol expenses:

$(VT - CT + \text{Income Tax Expenditure} + \text{Protocol Expenses}) \times 2\%$

$(1,350,000 - 1,067,000 + 20,000 + 8,000) \times 2\% = 6,220$ lei

Non-deductible protocol expenses = $8,000 - 6,220 = 1,780$ lei

Tax deductions: 113,000 lei

Fiscal depreciation = $60,000 + 25,000 + 15,000 = 105,000$ lei

Deductibility of the depreciation expenses of motorized road vehicles that are not used exclusively for the purpose of economic activity, but which meet the other criteria provided in the Fiscal Code, is limited to a maximum of 1,500 lei / month for each such vehicle.

2 vehicles \times 1,500 lei / month \times 12 months = 36,000 lei, from which it results that they are fully deductible.

Legal reserve:

$(VT - CT + Ch\ IP) \times 5\% = (1,350,000 - 1,067,000 + 20,000) \times 5\% = 15,150$ lei

$20\% \times CS = 20\% \times 100,000 = 20,000$ lei

Legal reserve to be established = $20,000 - 12,000 = 8,000$ lei

Fiscal result = $283,000 - 110,000 + 156,730 - 113,000 = 216,730$ lei

4. Determining the due profit tax

In our country, the profit tax rate, which applies to taxable profit, is 16%, except for entities that carry out activities such as night bars, nightclubs, discos or casinos, including legal entities that make these revenues based on an association agreement, and in the case of which the profit tax due for the mentioned activities is less than 5% of the respective income, and they are obliged to pay the 5% tax applied to these recorded revenues.

Returning to the case study above, we determine the profit tax due:

Profit tax due = $216,730 \times 16\% = 34,677$ lei

From this, the expense with the profit tax, already registered and paid, the possible deductions from the due profit tax is deducted and the final profit tax is obtained.

The following can be deducted from the due profit tax, among others:

- the tax related to the reinvested profit;

- expenses with sponsorships, within the limit of 0.75% of the turnover, but not more than 20% of the profit tax due;
- the cost of electronic diary cash registers, etc.

This, in the case of our case study, means:

Tax deductions from the IP due: 8,000 lei

Sponsorships deductible from the profit tax due: 5,000 lei

$0.75\% \times \text{turnover} = 0.75\% \times 1,230,000 = 9,225 \text{ lei}$

$20\% \times \text{profit on tax due} = 20\% \times 34,677 = 6,935 \text{ lei}$

Expenses with sponsorships made = 5,000 lei, DEDUCTIBLE in full from the profit tax due

The cost of cash registers: 3,000 lei

$2 \times 1,500 = 3,000 \text{ lei}$

Final profit tax = 34,677 - 20,000 - 8,000 = 6,677 lei

Income tax expense, already registered = 20,000 lei

Deductions from the profit tax due = 8,000 lei

5. Conclusions

The calculation of the result and of the profit tax is a series of complex operations that require good knowledge of tax regulations and good professional judgment. Throughout the process, action must be taken with discernment and utmost care, so that the elements of expenditure and revenue are properly framed from a fiscal point of view. The professional accountant must go through and follow the steps and methodology of calculating the profit tax, so that no errors occur that lead to an erroneous tax result.

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FINANCING OF PUBLIC ROADS IN THE REPUBLIC OF MOLDOVA

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Abstract: *The article is a research of the sources of financing destined to the Road Fund used for public roads. In this regard, the author performed a concrete analysis of some indicators that influence the investment potential in terms of maintenance and rehabilitation of public roads in the Republic of Moldova. From ancient times, road infrastructure activity has played a vital role in the development of the socio-economic complex. The first essential condition for the development of a society is the existence of modern road networks, able to ensure commercial connections at national level between various regions, but also internationally, thus contributing to the intensification of relations between states, connecting localities to the national transport network, thus facilitating the free movement of citizens and mobility increase. In this context, the efficient management of the financial means used in the process of administration of public roads represents an important role in obtaining result indicators oriented towards the modernization of quality transport networks in the Republic of Moldova with ensuring road safety in traffic. The purpose of the research was to evaluate and analyse the management of public road infrastructure in the Republic of Moldova in terms of managing the financial means of the Road Fund and other external sources used for the maintenance and rehabilitation / construction of quality transport networks. The scientific methods used are: analysis and synthesis, induction and deduction, critical analysis of materials, etc. The main results obtained from the investigations refer to the analysis of the road infrastructure in the Republic of Moldova financed from the Road Fund sources in terms of removing domain impediments, in order for users to access quality public roads.*

Keywords: *road infrastructure, road administration, transport networks, public roads, road fund, land communication.*

JEL Classification: *H54, H83.*

1. The topicality and significance of the researched problem

Economic growth requires access to resources, services, education. Modern public roads mean better communications and new business opportunities.

In the Republic of Moldova, among other major problems, the problem of roads remains a priority, the solution of which attests an important role in the economic development of the country. In this sense, the financial means reserved for roads are extremely important, the use of which must be efficient and transparent by achieving an efficient management opportunity for the rehabilitation of quality public roads.

Public roads are land communication routes specially designed for vehicles and pedestrians. The road also includes bridges, viaducts, uneven passages, tunnels, defence and consolidation buildings, sidewalks, bike lanes, parking and parking spaces, road plantations, signs and other facilities for traffic safety. Road administration aims to design, build, modernize, rehabilitate, repair and maintain roads.

Thus, the efficient management of the financial means used in the process of administration of public roads represents an important role in obtaining result indicators oriented towards the modernization of quality transport networks in the Republic of Moldova with ensuring road safety in traffic.

Therefore, an adequate and quality public road infrastructure expresses the level of development of the country worldwide by ensuring a functioning economy.

2. Sources for setting up the Road Fund in the Republic of Moldova and abroad

In the Republic of Moldova, the financing of the repair and maintenance of public roads is carried out from the financial means of the Road Fund as well as from grants and credits from abroad.

In international practice, the system of road funds and road taxes has historically developed taking into account the experience of developing public access services, whose positive external effects have been located in a specific circle of users. The oldest typical and historical examples were marked in England in the 19th century. Already in those days, there were discussions on how to finance services of this kind: through special taxes and special funds or from the budget according to the accumulated tax revenues. The system of road funds and taxes (interpreted precisely as "road prices") has been adopted, based on national specificities, in the legislation of dozens of countries around the world, including most European states: in the United Kingdom (since the 1920s), India (since 1929), China (since 1985), Australia, the states of North and South America, Africa and neighbouring countries. Almost all road funds established in foreign countries were created during the financial crisis in order to constantly carry out the necessary volume of road works in conditions of insufficient budgetary financing. These funds have been called "first generation road funds" and consisted of national revenues and payments from road users to ensure the protection of the road sector from volatile public funding.

Subsequently, in several countries, based on the restructuring of previously established road funds, "second generation road funds" emerged. These road funds consisted of payments made by public road users, and used for the maintenance and development of road infrastructure.

With regard to the funds accumulated in the Republic of Moldova, until the approval of the Road Fund Law of 1996, the financial means for the execution of repair and maintenance works of public roads were accumulated from the road tax paid by all economic agents, regardless of the type of services provided (1,5% of the volume of production and services). In 1996, that tax was replaced by excise duty on petrol and diesel.

Currently, the Road Funds exist in many countries of the world: USA, Japan, South Africa, Argentina, New Zealand, Republic of Korea, Switzerland, etc. Many Road Funds are formed on a hierarchical basis (centre, region, municipality) and are part of the respective budgets, or separate state financial institutions. The national road classifications are fully in line with the areas of financial responsibility of the Road Funds.

At the same time, the supervision of the Road Funds is carried out by a Public Council composed of representatives of state executive authorities and civil society, which represent the interests of road users, which allows to take into account the opinion of car owners on the directions of development and improvement of the road network. In order to control the expenditure of funds accumulated in the road fund system, an independent technical and financial audit is carried out periodically.

In the **USA**, highways are funded by the Federal Highway Fund, which provides funding for the construction, maintenance and modernization of the national highway and transportation system. Funds are also spent on safety-related programs to reduce road traffic deaths and property damage from accidents. In accordance with the legislation, the Fund consists mainly of excise duties on fuels, tires, tolls.

The fund is accumulated through Treasury accounts. Each budget year, Congress approves transfers from the Road Fund to the Department of Transportation. Through the Department, the Fund's funds are distributed among six agencies. Each of these agencies, with the exception of the Technology Administration for Research and Innovation, then provides grants to state and municipal governments in accordance with the calculation formulas established by law. Also in the US, the Department of Transportation website provides detailed information on public rules and procedures for spending planning, as well as detailed reports on revenue accrued on the fund and their subsequent use, in order to inform road beneficiaries.

In **France**, all roads are public, national highways and toll roads are managed by the Ministry of Transport, departmental highways and communes - by municipal authorities. The implementation of projects for the construction of public roads is carried out, either through classical budgetary financing, or within concessions, or within partnership contracts. In all three cases, the French Agency for the Financing of Transport Infrastructure acts on behalf of the State. The Agency participates in projects either by awarding grants for investments or loans. The French State may also transfer the financing, construction, repair and operation of toll roads to concessionaires for a certain period of time, in exchange for the collection of tolls from them (the roads remain the property of the State). At the same time, another mechanism for implementing road projects was introduced - public-private partnership contracts. They allow state structures to provide labour resources to private enterprises in exchange for long-term payments (in public works), equipment and financing.

In the **UK**, motorways are operated by the UK Motorway Service, which reports to the Ministry of Transport, the Scottish National Transport Agency, the Welsh Ministry of the Economy and Infrastructure and the Northern Ireland Motorway Service. The rest of the roads are managed by local governments. The budget for the UK motorway service consists of the toll and excise duties on fuels and lubricants.

In **Japan**, highways are funded by the road office of the Ministry of Land, Infrastructure and Transport through fuel taxes and vehicle tonnage. Local highways are managed from local road funds, consisting of the same taxes, as well as taxes for the purchase of a car (3-5% of the cost) and taxes for the use of roads.

In **Ukraine**, roads are managed by Ukravtodor through territorial road funds, consisting of tolls, import duties on petroleum products and customs duties on imported cars.

A Road Fund has been established in **Nicaragua** in the form of an independent body administered by the Council. The Council includes 2 representatives of state authorities, 1 representative of local government and 3 representatives of direct and indirect road users. The independent unit is responsible for the regular maintenance of the road network, which mainly represents local roads in Nicaragua.

According to the Competitiveness Report, published in October 2019, the World Economic Forum demonstrates that, 10 years after the financial crisis, while central banks have “injected” nearly \$ 10 trillion into the global economy, infrastructure investments have been below the optimal level. The report also emphasizes that finding a balance between technological integration and investment in infrastructure is key to improving the quality of public roads. The report gives an overview of the performance of 141 countries by analysing several issues on 12 pillars, including infrastructure. Thus, among the leaders in the ranking, for the 2nd pillar, that of roads, the best transport networks were developed in Singapore, which holds the first place. And the Republic of Moldova, in terms of the quality of road infrastructure, has returned its 129th place. Thus, the financial means of the Road Fund reserved for roads mean an essential role in ensuring quality public roads through efficient and transparent use.

Given that the Road Fund has a special purpose, it cannot be confiscated or spent for purposes other than those provided for in the Regulation¹.

The road fund consists of the following sources, namely:

¹ Decision of the Parliament 893-XIII of 26.06.1996 "For the approval of the Regulation on the establishment and use of the road fund"

- a) annual deductions from the volume of excise duties on petroleum products subject to excise duties, except for liquefied gas, in the amount established in the law of the state budget for the respective year;
- b) 50% of the total volume of the toll for the use of roads by the vehicles registered in the Republic of Moldova, collected at national level, other road tolls collected according to the fiscal legislation;
- c) fees for issuing authorizations for international carriage of goods and occasional passengers;
- d) fines applied for non-compliance with the rules of passenger transport, damage to roads, constructions and road equipment, plantations related to roads;
- f) the tax for the sale of natural gas intended for use as fuel for car transport units.

The quality of administrator of the financial means of the Road Fund is held by the State Enterprise "State Road Administration". In addition to the means obtained from the general revenue of the State Budget, the State Administration also benefits annually from resources from projects financed from external sources. The dynamics of the resources destined for the rehabilitation and maintenance of the public roads from the Road Fund and from external sources for the years 2012-2019 are presented in Table no. 1.

Tabel. 1. Dynamics of resources for the development of public roads for the years 2012-2019

No.	Indicators	Unit.	Years							
			2012	2013	2014	2015	2016	2017	2018	2019
1.	Road fund	Thou. MDL	1024,8	1205,0	1363,9	1038,3	1000,0	1079,7	1072,4	1024,1
2.	External sources	Thou. MDL	246,1	461,3	720,7	765,8	999,3	994,1	2244,6	1516,4
3.	Total	Thou. MDL	1270,9	1666,3	2084,6	1804,1	1999,3	2073,8	3317,0	2540,5

Source: Analysis performed based on official data according to regulations.

The analysed data attest to a character of slow ascent of the financial means distributed to the public roads infrastructure, determined by the increase of external resources by 1270.3 million lei or about 6 times more, in 2019 compared to the similar period of 2012.

A clear assessment of the means needed to ensure the maintenance of public roads would determine the full nature of the resources of the Road Fund. In this sense, the Ministry of Finance has the role of organizing the planning process and elaboration of the Road Fund budget, which annually issues the circular to the authorities involved in the Road Fund planning process, in order for them to present project proposals. Thus, the revenues of the Road Fund are determined with the contribution of the bodies subordinated to the Ministry of Finance, which estimate the receipts of the administered revenues, namely: the State Fiscal Service - regarding the road taxes related to the fiscal legislation; Customs Service - on excise duties and tolls for unregistered transport units. In its turn, the Ministry of Economy and Infrastructure presents the estimates regarding the receipts in the budget of road taxes by the vehicles registered in the Republic of Moldova.

As a result of the consultations between the actors involved, however, the decisive task in the planning process of the Road Fund belongs to the Ministry of Finance - having the quality of budget administrator, focusing mainly on the actual revenues of previous years. The record of the financial means of the Road Fund, accumulated in the Single Treasury Account of the Ministry of Finance, is kept on each type of tax separately.

3. Breakdowns of excise duties on petroleum products predominate the sources of the Road Fund

After the formation of the Road Fund in 1996, the Parliament of the Republic of Moldova, at the proposal of the Government, in order to ensure a considerable increase in financing for road maintenance amended in 2009 the Road Fund Law in the part related to the allocation of less than 50% in 2010, 65% in 2011, 80% in 2012 and in subsequent years, of the total volume of excise duties on excise oil products, excluding liquefied gas and distributed for road maintenance, respectively.

The administration of excise duties is carried out by the Customs Service, by applying control actions on the payment of excise duties, and by the State Tax Service, with the undertaking of control measures already at the place of finding / destination of the excised products. Excise duties are levied as import duties on the crossing of petroleum products across the customs border, being taxed by the state, administered as customs revenues to the State Budget. Until the submission of the customs declaration, the taxable persons are to calculate and pay the excise duties according to the quotas established by the legislator, in absolute amount per unit of measurement of the goods.

Although, the legislator approved that, starting with 2012, the amount of 80% of the total volume of excise duties on petroleum products will be distributed in the Road Fund, the mentioned index was diminished by derogation, from 2015, from the provisions of the Organic Law of the road fund through the annual Laws of the state budget. And in 2018 the legislative provision was completely changed by the phrase that the annual deductions from the volume of excise duties on petroleum products subject to excise duty, except for liquefied gas, will be in the amount established in the state budget law for that year. The dynamics of the percentage share of the total volume of excise duties on petroleum products, accepted to be distributed in the Road Fund for the years 2012-2019 is presented in Figure no. 1.

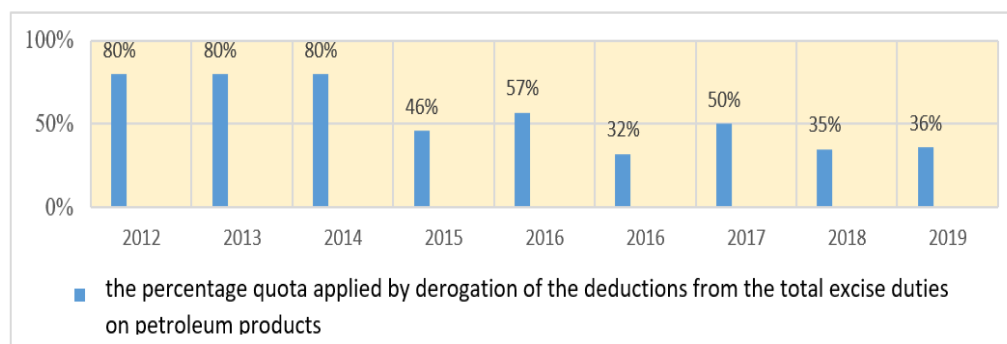


Fig. 1. Dynamics of annual breakdowns established by the percentage share of the total volume of excise duties on petroleum products for the years 2012-2019

Source: Analysis synthesized based on the regulatory framework

The analysis attests an oscillating character of the amount established for the distribution in the Road Fund of the excises for petroleum products with the decrease of this indicator year by year, starting with 2015.

Considering that the deductions from the excise duties on petroleum products represented the main source of income in the establishment of the Road Fund, of about 70%, their volume in amounts, over the years, followed the decline of the allocations destined to the Road Fund. Financial means that could be used for the rehabilitation of public roads as a whole.

Fees for setting up the Road Fund

While tolls levied under tax law are one of the sources of funding for the Road Fund, there is the problem of improving them by ensuring a greater guarantee for the benefit of road users. At the same time, the revenues obtained in this respect are not sufficient to finance the costs of maintenance and repair of transport networks and the modernization of road infrastructure. Secondly, there is no correlation between the volume of tax revenue and the actual wear and tear of roads in the region, which is caused, firstly, by the particularities of the tax bases of the taxes paid by drivers. Thus, the taxable base of the toll is calculated on the basis of the power of the vehicle and therefore has no correlation with the actual wear and tear caused to the road by the taxpayer. The information regarding the share of the main taxes, in total receipts in the state budget, destined to the Road Fund for the years 2014-2016 is presented in Table no. 2.

Tab. 2. The share of revenues from the taxes intended for the Road Fund for the years 2014-2016

Nr.	Indicators	2014		2015		2016	
		Σ	(%)	Σ	(%)	Σ	(%)
1.	Fee for road use by vehicles registered in the Republic of Moldova	219,1	73,6	292,8	70,9	331,9	68,6
2.	Veneta	51,6	17,3	89,4	21,6	114,6	23,7
3.	Fee for issuing authorizations for international road transport	12,6	4,2	12,6	3,0	11,9	2,5
4.	Tolls for the use of roads by motor vehicles whose total mass, axle mass or dimensions exceed the permitted limits	5,4	1,8	6,8	1,6	8,2	1,7
5.	Fees for the sale of natural gas intended for use as fuel for motor transport units	6,8	2,3	7,3	1,8	9,6	2,0
6.	Fee for the use of the roads of the Republic of Moldova by motor vehicles not registered in the Republic of Moldova	0,9	0,3	3,1	0,7	6,5	1,3
7.	Fee for the use of the road protection area outside the perimeter of the localities for the location of the objectives for the provision of road services	0,6	0,2	0,7	0,2	0,7	0,1
8.	The fee for using the road protection area outside the perimeter of the localities for the placement of outdoor advertising	0,4	0,1	0,2	0,1	0,4	0,1
9.	Fee for the use of the road protection area outside the perimeter of the localities for carrying out construction and assembly works	0,3	0,1	0,2	0,1	0,1	0,1
	Total	297,7	100,0	413,1	100,0	483,9	100,0

Source: Analysis performed based on information presented by the Ministry of Finance

The data in the table show that a significant share of about 70% of the taxes for the Road Fund belongs to the tax for road use by vehicles registered in the Republic of Moldova, which in 2016 was accumulated in the Road Fund in the amount of 331.9 million. lei, or by 112.8 million lei (151.4%) more compared to 2014 (219.1 million lei).

According to the object of taxation¹ and tax rate², natural and legal persons owning vehicles registered in the Republic of Moldova are to independently calculate the tax. The amount of the toll for the use of roads by the vehicles registered in the Republic of Moldova are established by normative acts approved by the legislature (presented in Table no. 3).

Tab. 3. Fee for road use by vehicles registered in the Republic of Moldova

No.	Object of taxation	Unit of measurement	Tax, lei
1.	Motorcycle, moped, scooter, moped with cylinder capacity:		
	a) up to 500 cm ³ inclusive	unit	300
	b) of over 500 cm ³	unit	600
2.	Cars, special purpose vehicles on car chassis with engine capacity:		
	a) up to 2000 cm ³ including	cm ³	0,60
	b) from 2001 to 3000 cm ³ inclusive	cm ³	0,90
	c) from 3001 to 4000 cm ³ inclusive	cm ³	1,2
	d) de la 4001 la 5000 cm ³ inclusive	cm ³	1,5
	e) of over 5001 cm ³	cm ³	1,8
3.	Trailers with a lifting capacity inscribed on the registration certificate	ton	270
4.	Lifting semi-trailers with the registration certificate:		
	a) up to 20 t inclusive	ton	225
	b) of over 20 t	unit	4500
5.	Car trailers, tractors	unit	2250
6.	Trucks, special purpose vehicles on truck chassis, any other self-propelled vehicles, with total mass:		
	a) up to 1,6 t inclusive	unit	1200
	b) from 1,6 t to 5,0 t inclusive	unit	2250
	c) from 5,0 t to 10,0 t inclusive	unit	3000
	d) of over 10,0 t	unit	4500
7.	Buses with capacity *:		
	a) up to 11 places	unit	2925
	b) from 12 to 17 places inclusive	unit	3600
	c) from 18 to 24 places inclusive	unit	4275
	d) from 25 to 40 places inclusive	unit	4725
	e) of over 40 places	unit	5400

Source: Data presented according to the Fiscal Code of the Republic of Moldova.

It is also mentioned that the receipts of the nominated tax are consolidated following the completion of the mandatory annual technical testing of motor vehicles, as well as their state or current registration. Thus, in order to create a unique centralized system for recording vehicles and trailers, with the support of the tax system, was created, by Government Decision, the State Register of Transport, whose owner is the Public Services Agency. The transport register is a unique automated information system, which includes

¹ The object of taxation is motor vehicles permanently or temporarily registered in the Republic of Moldova: motorcycles, cars, trucks, special purpose vehicles on car or minibus chassis, special purpose vehicles on truck chassis, car trailers, trailers, semi-trailers, minibuses tractors, any other self-propelled vehicles.

² Title IX, Annex no.1, Fiscal Code no.1163-XIII of 24.04.1997.

technical, economic and legal information on motor and motor vehicles, tractors, machines and specialized mechanisms for road construction, improvements, agricultural machinery and mechanisms, trailers for them, fleet vessels. small capacity, stationary and mobile units with internal combustion engines and some numbered units, as well as their owners. The register is part of the National Information System of the Republic of Moldova.

The main tasks of the Transport Register are the following:

- 1) full identification, evidence and documentation of the country's fleet of vehicles and vehicles in international traffic;
- 2) ensuring the protection and public recognition of the property, possession and use rights over the vehicles;
- 3) introduction in the country of automated control over the movement of vehicles;
- 4) supporting the fiscal system and the insurance system;
- 5) providing the central and local public administration authorities, the economic agents and the population with statistical information about the number and technical condition of the vehicles operated in the country;
- 6) development of transport infrastructures and services.

In this context, it is revealed that the Public Services Agency (PSA, with territorial subdivisions), using the SIA subsystem "Transport Registration", was assigned the task of updating the information from the State Register of Transport on identification and registration of technical characteristics of vehicles, which, in turn, determines the object of the tax for the subsequent calculation of the tax. In accordance with the regulations¹, vehicles that have not been registered in the State Register of Transports shall be registered only with the written permission of the customs authorities and on the basis of certificates of conformity and / or approval, issued by the Ministry of Economy and Infrastructure. information about the year of manufacture and the technical parameters of the transport units. The Public Services Agency carried out state registration of motor vehicles on the basis of customs documents and reports identifying the means of transport, drawn up by its experts, without type-approval certificates (vehicle identity card). With a view to the partial transposition into national law of the registration and registration of vehicles of the provisions of Directive 2007/46 / EC of the European Parliament and of the Council of 5 September 2007 establishing a framework for the type-approval of motor vehicles and their trailers, the Government approved amendments which operates in Annex no. 2 to the Government Decision no. 1047 of November 8, 1999 "On the reorganization of the automated search information system" Automobile "in the State Register of Transports and the introduction of testing of motor vehicles and their trailers". Thus, the Government Decision no. 588 of 24.07.2017 regarding the amendment of annex no. 2 to the Government Decision no. 1047 of November 8, 1999 entered into force on 01.03.2018. Vehicles in the registration process, and their trailers, as well as body types will be classified according to the provisions of the European directives on vehicle type-approval, which will be transposed through national legal instruments.

According to statistical data in the Republic of Moldova as of March 1, 2021, the number of means of transport² registered 1,081,454 units or 39,282 units more than those registered in 2011. The dynamics of the number of transport in the Republic of Moldova is presented in Table no. 4 .

¹ Annex no. 2 to the Government Decision no. 1047 of 08.11.1999 regarding the reorganization of the automated search information system "Automobile" in the State Register of Transports and the introduction of testing of motor vehicles and their trailers.

² Cars, trucks, trailers, tractors, motorcycles, buses, semi-trailers.

Tab. 4. Means of transport registered in the Transport Register of the Republic of Moldova

Name	31.05.2011 (units)	30.09.2013 (units)	01.03.2021 (units)	Deviations Year 2021/2011 (units)	Weight Year 2021/2011
1.	2.	3.	4.	5=4-2	6=4/2
Means of transport, total	688642	791910	1081454	392812	157 %

Source: Analysis based on information collected from the government's Open Data portal.

The summary shows that over the years there has been an increase in the number of means of transport, which have an imperative impact on road infrastructure through more frequent use of the road. Thus, public roads being built, maintained at a moderate level of financing remain at a risk of consistent use with an innocent and deductible impact on the entire transport network and the ecological level in the country.

4. Conclusions

Ensuring the development of quality road infrastructure involves the administration of transport networks through the assimilative application of a sustainable functional management. The rational use of the resources destined for the development of the roads from the Road Fund derives the obtaining of the efficient results in the rehabilitation, the construction of the quality public roads, with the assurance of the traffic safety. The modification of the possible amount of deductions of oil excises from their total volume, through the State Budget Law, considerably reduces the revenues of the Road Fund, not making it possible to use the necessary resources in the rehabilitation of public roads. The developed evaluation of the technical condition of the transport networks with the application of the technical performance parameters is determined by the strategic importance of the modernized public roads in relation to cost-benefit in terms of duration.

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<http://lex.justice.md/md/336995/>
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THE CIRCULAR ECONOMY BETWEEN LIMITS AND OPPORTUNITIES

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Abstract: From the perspective of increasing the world's population, the pressures on the environment and most natural resources that serve as raw materials (fuels, minerals and metals), food, sun, water and biomass are increasing. Given that natural resources are indispensable for the functioning of the economy and contribute significantly to the quality of our lives, it would be appropriate to reduce our consumption of materials from the design stage of products. In this context, the circular economy, which aims in particular at a goal of zero waste and the rehabilitation of all problems, is a solution. The development of this type of economy is already a clear political will in several countries. It is also possible to make the least use of non-renewable resources by opting for the use of renewable resources, depending on their renewal rate and the disposal of waste through recycling, repair and reuse. In this paper we aim to present the limits of the linear economy and the concept of circular economy, in the context of the situation of the circular economy in the world.

Keywords: Circular Economy, Sustainable Development, industrial ecology, ecodesign.

JEL Classification: Q01, Q32, Q57.

*This paper is written within the state project 20.80009.0807.22
Developing the mechanism for the circular economy creation in the RM*

1. Introduction

During its evolution and diversification, our economic system has never managed to escape a fundamental feature present since the beginning of industrialization: a linear way of consuming resources that is equivalent to extraction-manufacture-disposal. Companies extract raw materials, use them in the factory of their products, which they sell to the consumer. The latter throws them away as soon as they no longer perform their functions or are no longer fashionable. This fact would have grown considerably today if it had not initiated some measures to move to a sustainable economy. The results of implementing the principles of a sustainable economy, although still quite modest, as we see in Figure 1, are quite promising.

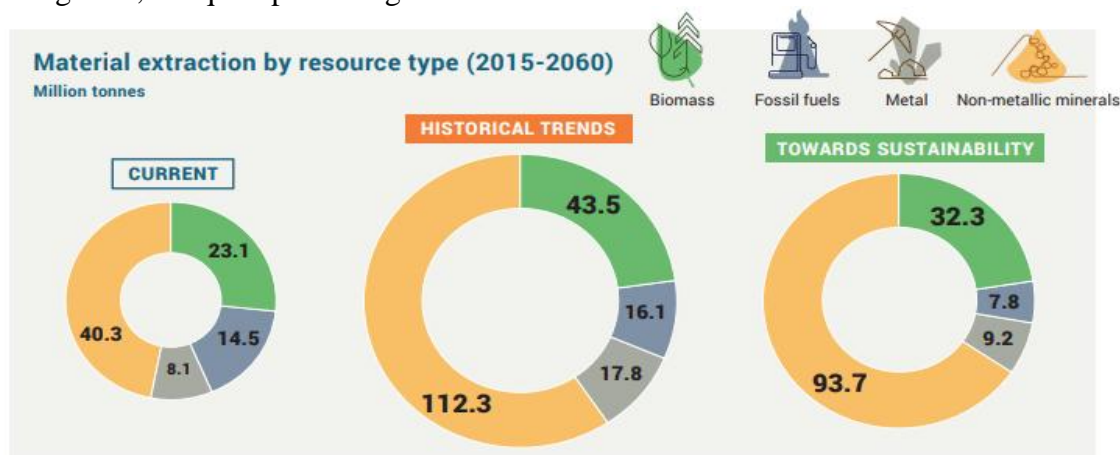


Figure 1. Trends in material extraction by resource type.

Source: Global Resources Outlook 2019: Natural Resources for the Future We Want, <https://www.resourcepanel.org/reports/global-resources-outlook>

In the report of the Committee on the Environment, Public Health and Food Safety "Global Resources Outlook 2019", the International Committee on Sustainable Resource

Management estimated that the global economy uses resources equivalent to the resources of 1.5 planets and we would need more from now on three planets if all people consumed at the level of an average EU inhabitant”, significantly reducing the use of natural resources and waste generation should be the primary goal of the circular economy (UN Environment Programme, 2019). Maintaining the pace of resource use remains dangerous not only for the environment but also for companies exposing them to several risks including rising raw material prices, disruption of supply, etc. An increasing number of them are caught between sudden increases or uncertainties related to commodity prices, on the one hand, and stagnant demand on the other.

At the same time, the volatility of prices for metals, food and non-food products increased during the first decade of the 21st century to levels not seen in the 20th century. The upward trend in commodity prices and their volatility continues today.

2. The practices of the circular economy

The circular business model is based on the reuse, repair, reprocessing and recycling of materials and products. The objectives of such an economic model are: to increase resource productivity and to separate economic growth from resource consumption and environmental impact. A circular economy is an industrial model that is by definition based on the repair or regeneration of resources, by replacing the concept of "end of life" with that of "repair" and "reuse", using renewable energy and even proposing to eliminate toxic substances by promoting a new design of products and materials. What is means preserving the economic value and limiting the harmful effects on the environment.



Figure 2. The practices underpinning the Circular economy

Source: Phd2050, 2014 according to ADEME, 2013

The foundation, created in 2010 by British sailor Ellen MacArthur, an international landmark in the circular economy, specifically states that “the circular economy is a generic term for an economy that is restored by its nature. Material flows are of two types, biological, which are destined to return to the biosphere, and technical, which are destined to flow with as little loss of quality as possible, leading to the shift to a food economy eventually renewable energy” (Ellen Macarthur Foundation, 2012). The transition of circulating economic models promises a much better future for the global economy. In this

way, the world can meet current and future challenges caused by the limit of global resources and the insecurity caused by the lack of supply.

Supported by a new model of economic development, the circular economy needs both theoretical and empirical assistance. After studying the relevant literature, we consider that in order for the circular economy to realize its full potential, it is important to follow the implementation of its principles, which can be achieved by following seven practices that are essential.

The first practice is related to ecological design, it assumes that at the design stage of any product or service, it is essential to consider all its impacts on environment throughout its life cycle. About the importance of the concept of organic production wrote (Nilsson et al., 2007) noting that this involves issues such as: the correct use of resources and the replacement of resources that are short-lived or dangerous (Lévy and Aurez, 2013). Eco-design can be done by using materials that have a low impact on the environment (from renewables, recycled and recyclable materials), reducing the mass or volume of materials, minimizing greenhouse gas emissions, choosing production technologies that generate less or even zero waste and emissions, or low energy consumption, by increasing the durability of the product which would minimize service and repair needs, designing the product considering how to use them after the end of its life cycle (reuse, reconditioning, modernization, recycling). For example, plastics can be melted a limited number of times after which molecular integrity will be lost. This means that it is crucial to achieve new and innovative plastics, designed in an environmentally friendly way, because plastics today are a very important category of waste.

The second is related to industrial ecology, is a method of industrial organization applied by several companies in the same territory and characterized by an optimized management of resources (water, materials, energy). Responds to a collective logic of sharing and exchange (waste, raw materials, energy, services, etc.). The principles of industrial ecology were defined by Tibbs in 1992, referring to the necessity of creation of industrial ecosystems, balancing natural inputs and outputs, dematerialization of industrial production, efficient improvement of the industrial process, using energy and political alignment to the concept of industrial ecology (Tibbs, 1992). Waste from various animal factories could be used, for example, as fertilizer for plant breeders.

The functional economy is the third practice and it is about favoring using instead of possession and tends to sell product-related services rather than products themselves. For example, renting various products with a guaranteed life cycle and not selling them. The indicators that can characterize the functionality of the circular economy are based on six basic principles that should be known and respected: the infinity of the circuit of matter and materials, using renewable energy, supporting ecosystem services and natural capital, supporting health and activity supporting society and culture, generating added value in any form, not just financially (Circle Economy, 2015).

Reuse, the fourth practice, involves the introduction of products that no longer meet the needs of the first consumer repeatedly in the economic circuit. As was mentioned by the J. Kirchherr and others at conceptualizing the definition of circular economy 74-75% of the definitions of different specialists emphasize the reuse (Kirchherr, Reike and Hekkert, 2017). And Stahel in his paper calls reuse as key of the circular economy (Stahel, 2014). This involves selling products that we no longer need instead of turning them into waste.

The fifth practice is repair. Damaged goods can receive a second life by repairing with new or used parts from the reuse process. Some waste can be repaired or dismantled, and the working parts sorted and then resold. The repair prolongs the life of the products, attracting many other benefits for the economy and the environment.

Finally, the last practice, well known, is about recycling. It aims to reuse raw materials from waste either in a closed loop (to produce similar products) or in an open loop (used in the production of other types of goods).

The implementation of all these behaviors or practice, as we have named them above, are important and aim to minimize: the amount of natural resources consumed in production, the amount of pollutants discharged into the environment and the global ecological damage caused by the economic activity.

3. The circular economy in the European Union

The European Union has a key role to play in supporting the circular economy. The European Commission officially announced its interest in the circular economy on 17 December 2012, through a flagship initiative "Resource Efficient Europe", which states that "in a world where pressure on resources and on the growing environment, the EU has no choice but to decide "How to take a step towards a profitable economy and finally achieve a circular economic recovery". In connection with the European Commission's adoption of the "Circular Economy Package", there is a real interest in the authorities in Europe in implementing circular economy programs and legislation.

The EU Action Plan includes a number of measures aimed at covering the entire production cycle, from production and consumption to waste management and the secondary raw materials market. The description and measures included in the action plan reflect a shift in the focus of EU waste policy, which has traditionally focused on efficient management of materials and resources.

According to the initiators of the European Commission (Circular economy Strategy, 2016), stimulating the transition to the circular economy, aims to increase the global competitiveness of the European Union, support sustainable economic growth and create new jobs. In early December 2015, the European Commission adopted the Circular Economy Package. In the opinion of the Vice President of the European Commission (Katainen, 2016), the adoption of the Circular Economy Package created the conditions for the transition to the circular economy, which encourages investment in this direction, provides the necessary incentives for business and consumers to adopt new business models, products, services and techniques" (Katainen, 2016).

In the meantime, the European Commission has also been actively involved in promoting the circular economy, by supporting various research projects in the field of the circular economy in the EU's research and innovation program (Horizon 2020); establishing a strengthened partnership to support research and innovation for the circular economy; facilitating the development of more circular models of products and services, and supporting the principle of cascading in the sustainable use of biomass, taking into account all sectors exploiting biomass, so that this resource can be used as efficiently as possible (European Commission, 2014).

Recent studies show that the circular economy has the potential to increase EU GDP by an additional 0.5% and create more than 700,000 new jobs by 2030, and that between 2012 and 2018 the number of jobs linked to of the circular economy in the EU increased by 5%, reaching about 4 million, the implementation of the principles of the circular economy also allow to improve the quality of jobs (Ellen Macarthur Foundation, 2015).

At EU level, concern about implementing the transition to a circular economy as soon as possible remains very pressing. This is dictated both by the publication of the report of the Intergovernmental Panel on Climate Change (IPCC, 2018) on global warming and many other issues that still persist, such as the rapid growth of e-commerce, the significant increase in packaging waste, such as waste disposable plastic and cardboard,

maintaining a high level of food waste generated in the EU (food waste having a considerable impact on the environment, approximately 6% of total EU greenhouse gas emissions), etc.

Europeans are currently in the process of adopting a new European Commission action plan on the circular economy. Among the basic pillars of these actions are the importance of improving access to funding for research and innovation projects in the circular economy; that calls on the Commission to focus its activities in Horizon Europe on supporting research and innovation in: recycling processes and technologies; efficiency of industrial process resources; innovative and sustainable materials, products, processes, technologies and services, as well as their industrial expansion; bioeconomy, through bio-based innovation, including the development of bio-based materials and products; Earth observation satellites, as they can play an important role in monitoring the development of a circular economy by assessing the pressure on virgin raw materials and emission levels.

The transition to a circular economy has the potential to promote sustainable business practices, its policies and measures aim to put European companies and economies at the forefront of a global race for circularity, thanks to well-developed EU business models, increasing knowledge in circularity and strong experts in recycling, sustainable and responsible supply of primary raw materials.

4. The limits of the circular economy

The implementation of the principles of the circular economy regardless of the selected direction implies the confrontation of certain limits, both technical and economic and political.

The circular economy faces not only the complexity of the flow of products to be recycled, but also the degradation of the material (Lévy and Aurez, 2013). In fact, the raw materials in the warehouses lose their purity from the first stages of manufacture: they are mixed and treated with various additives, so that they have the desired properties. The resulting materials are then assembled into components and then into the final product. Each of these steps significantly increases the complexity of the flow of products to be recycled. And, after recycling, the material degrades. So recycled steel for the first time is worse than new steel and so on. Therefore, recycling is limited and the material used does not necessarily have the possibility to be reintroduced into a production/consumption circuit (World Bank, 2009).

Another technical limitation is the diversity of the composition of municipal solid waste, which prevents the realization of circular economy projects in a generalized form. For example, the composition of waste in different regions of the same country depends on the level of urbanization and living conditions of the population, as well as the industry present.

The transition from a linear to a circular economy could slow short-term economic growth and limit the possibilities for developing certain activities (Lévy and Aurez, 2013). It should be noted that many studies, including the StiglitzSen report, question the relevance of GDP as an indicator of economic growth, as it limits alternative approaches in too limited a framework. GDP only takes into account monetary criteria and therefore does not take into account, inter alia, short-, medium- and long-term environmental damage (Stiglitz, Sen and Fitoussi, 2009).

In addition, recycling is economically viable only when the demand for materials is high. However, during crises, the demand for new materials decreases, leading to an even greater decrease in the demand for recycled materials. In addition, despite the progress of recycling and waste recovery, resource depletion is not sufficiently slowed down. For

example, steel recycling is said to save only 12 years until the world's iron ore is depleted, with a 70% level of global steel recycling (UN Environment Programme, 2019).

Also, should be adopted a lot of stimulus policies for the development of the circular economy. An effective tax system for promoting this economy would be the direct taxation of raw materials and not products derived from them (Stahel, 2014). This taxation would affect the entire system of producer and consumer prices. It would also be necessary for the cost of exploiting natural resources to be higher than that of renewable and circular resources, and for the consumption of the latter to be more profitable than that of natural resources. In short, it is necessary to reorganize the system of prices, markets and taxes.

5. Conclusion

The circular economy is now a model of more viable development, more environmentally neutral and with real local coverage. It can develop provided that many factors are united and taken into account in a systemic approach.

This concept has the great advantage of connecting all economic actors. Indeed, large companies may be seduced by the many opportunities to create value and reduce the costs of the circular economy. Public administrations may be interested in the zero waste target. Finally, alternative actors may be interested in breaking with the productivity embodied in the functional economy, as well as the values of sustainability promoted by the circular economy.

However, the transition to a circular economy requires the development of knowledge, facilitation of the dissemination of knowledge and acceleration of innovation. If they are insufficient, this can impede the transition to a circular economy.

Generally, in the field of a circular economy, there is a fragmented organization of knowledge development and a reduced cross-sectoral knowledge development. Because the circular economy has relationships with several sectors, such an organization of knowledge is not effective. It is necessary to ensure a flow of information containing reliable information, accessible to all concerned. The development of knowledge in this field remains necessary for a transition to a circular economy. However, to date, linear technologies seem to be deeply rooted.

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THE CORRELATION OF INTERNAL AUDIT - INTERNAL MANAGERIAL CONTROL AT THE ENTITIES OF PUBLIC INTEREST IN ROMANIA

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Abstract: *For an operation in parameters expected by all those interested, any public interest entity takes steps to create a strong link between risk management, the degree of development of the internal management control system and corporate governance. The knowledge that management needs to direct its activities is obtained from the analyses performed in order to identify the vulnerabilities and opportunities for the development of the managed entity. This becomes achievable only with the well-positioned support of the relationship between the internal audit and internal managerial control.*

Keywords: *Internal audit, internal managerial control, corporate governance, risk management, public interest entity.*

JEL Classification: *M42.*

1. Introduction

By providing objective assessments of public resource management in a responsible and efficient manner, the internal audit helps public sector organizations meet their responsibilities, maintain integrity, improve operational activities and, ultimately, increase the public confidence.

From the perspective of the specialized literature, the role of internal audit in the public sector is to “support the responsibilities of governance in identifying omissions and knowledge of internal activities and their forecasts” (Dittmeier and Casati, 2014).

In Romania, the *external audit* found, after evaluating the internal control system on management and control standards for public entities, that most territorial administration units and public institutions did not organize a department for internal audit (States, Tănase and Voinea, 2017). From this point of view, it can be seen that without conducting internal public audits, the management of public institutions do not have insurance for the proper management of public revenues and expenditures, do not have the opportunity to improve their activities and do not have support in achieving their objectives through a systematic and methodical approach that could enable them to improve the efficiency and effectiveness of their guidance system based on the risk management, control and administration processes.

Internal audits based on the outlook assessment answer the question: *What policies or implementations will need to be reviewed in the future and what is the risk?*

As public sector internal audit directs attention to trends, it helps to make decisions. Internal auditors also help managers understand and initiate risk assessment. Even the own risk assessment of the internal audit ensures that audit resources are also used efficiently in areas with higher risk exposures. Through these roles, the internal audit protects the basic public values. By providing an overall audit, an assessment of prospective activities for entities, public sector auditors contribute to the transparency, integrity and fairness of the activities conducted by managers and officials.

2. Literature review

Authors such as Iain, Stuart (Iain and Stuart, 2008) mentioned that internal audit is a function of management that seeks to establish recommendations for improving the real situation of the entity. Other experts believe that internal audit experienced a more pronounced development after the '80s, when the internal audit function began to take shape and the role of internal audit is to bring value to the entity (Renard, 2002).

Staciokas and Rupsys (2005) makes a dynamic analysis of the evolution of internal audit responsibilities and states that, “internal auditors provide counsellors and recommendations for general management, take part in risk management processes and provide recommendations for improving these processes”.

Addressing the relationship with the entity's management (Saam, 2007) considers that internal audit “supports the entity's management in fulfilling its obligations and strengthens the trust of the entity's owners in the integrity of management”, and J. Renard (2006) argues that “internal audit is everything he should make a person in charge to make sure that he has good control over the business if he has time or if he knows how to proceed”.

One of the studies published in the journal “*Maximizing the internal audit function*”, 2010, argues, for the internal audit function to be efficient, requires the existence in practice of eight key attributes, respectively: (1) *exploiting the opportunities offered by corporate governance*, (2) *optimizing the risk assessment process*, (3) *developing the scope of internal audit in order to increase the added value of internal audit*, (4) *improving existing skills*, (5) *reducing the cost pressures*, (6) *maximizing the benefits of use technology*, (7) *critical risk orientation* and (8) *alignment of audit objectives with the needs of beneficiaries*.

In Romania, internal audit first appeared in public sector entities and was recommended to private sector entities (Ghiță, 2004), unlike the global situation, where internal audit first appeared in multinational entities and then transferred to the national ones and adopted by the administration (Renard, 2002).

In our country, specialists support explanations regarding the internal audit practices and procedures necessary to achieve the purpose of the entity (Dobroțeanu and Dobroțeanu, 2002).

Authors such as Morariu, Suciu and Stoian (2008) and Sabău and Nagy (2009) analysed the importance of internal audit missions and their role in increasing the economic performance.

3. Research methodology

The methodology applied in this study is characterized by the combination of deductive-inductive research methods (data interpretation method: comparative and interpretive), respectively, mainly inductive (methods of data collection, information processing and their interpretation).

Referring to the systematization of research methods developed by Septimiu Chelcea, in the research conducted were used transversal (observation) and longitudinal (case study), experimental methods and observation methods (documentation), case studies methods (analysis of the organization of the internal audit approach at a public enterprise)

In the elaboration of this research we started from theory, applying a deductive type research, in order to reach the individual conclusions regarding the improvement of the internal audit, but also an inductive type research, starting from particular judgments to the formulation of general conclusions, by verifying the transposition into practice of the obtained information. In order to achieve the proposed objectives in this scientific approach, the methodology used was based on:

Theoretical research, inspired by the following sources: corporate governance codes, international and national regulations on internal audit activity, specialized books, and information published on the Internet. Empirical research, by applying research methods to verify the research hypotheses and establish their own general conclusions.

The conclusions of the theoretical and empirical research that contributed to the argumentation of improving the correlation between internal audit and internal managerial control and increasing their efficiency at the level of public interest entities.

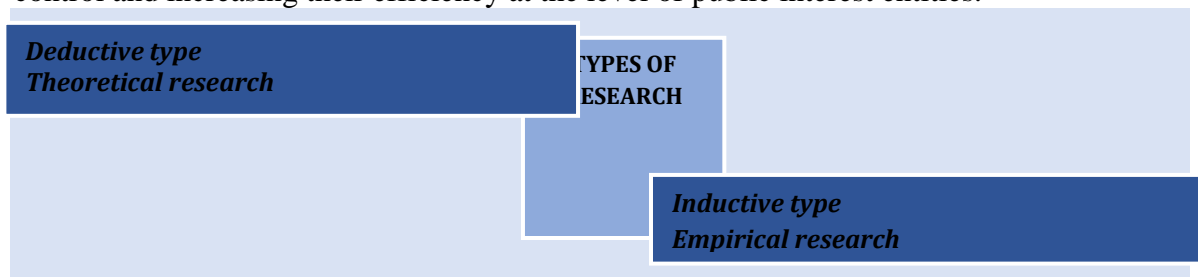


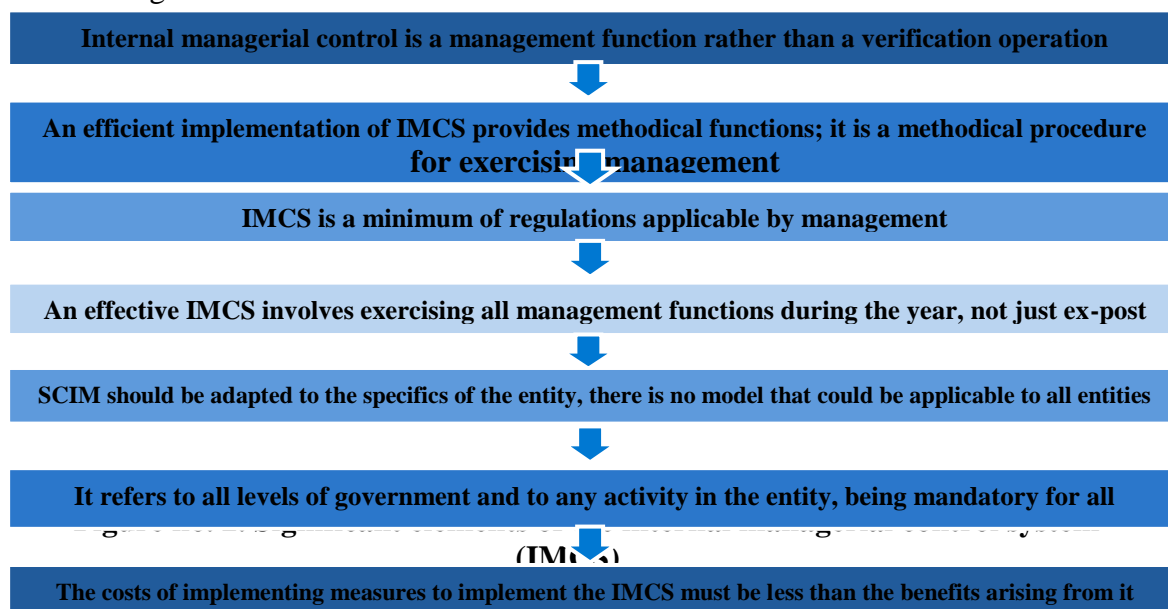
Figure no. 1. Research methodology

Source: Own projection

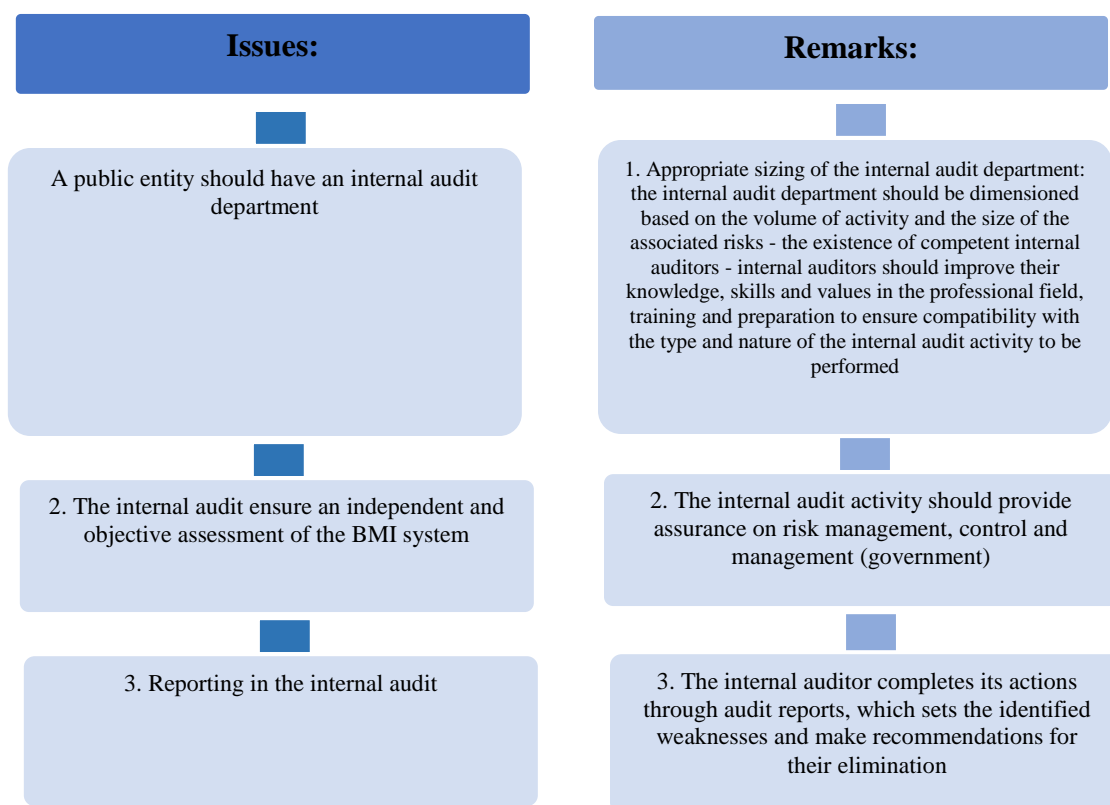
4. Internal audit - the supporting pillar of the Internal Management Control System

When we refer to the internal control, we refer to all forms of control exercised at the level of the public entity, including internal audit, established by management in accordance with its objectives and legal regulations, to ensure the management of funds in an economical and efficient manner, that include the organizational structure, methods and procedures. Regarding the implementation of the *internal managerial control system* (IMCS) in public entities, a series of laws and regulations have been adopted in Romania.

According to the legislation, the public entities are required to implement a Code of internal managerial control by adopting 16 control standards. In (figure no.2), there are presented some of the representative elements for the internal managerial control that are considered significant.



The connection between the internal audit and the internal managerial control system is presented in (figure no.3).



Source: Own projection

Figure no. 3

Mainly by implementing these standards, an internal managerial control system aims to provide reasonable assurance that the entity is functioning well at all levels, in line with the expectations of the beneficiaries.

It is noted that this is a reasonable assurance: the fact that IMCS is fully implemented by an entity, this does not guarantee 100% that the entity would record a profit and that it will continue its activity based on the principle of business continuity.

Implementing an internal control system is cumbersome due to employee reluctance and the fact that many do not understand the importance of a control system and do not understand the terminology used in this area.

5. Approaching and applying the internal managerial control system in public entities in Romania

Internal managerial control (IMC) is a dynamic and integrated process of permanent adaptation of the public institution to changes taking place in the external environment.

The IMC approach is in fact a specific way of analysing the institution's activities. Thus, by adopting and applying a new type of internal management that is frequently associated with the knowledge activity, IMC allows the management of the public institution to coordinate its activities in a more efficient way. Therefore, internal control should be considered as a managerial function and not as a verification operation.

This is not just a general notion, a doctrine or a multitude of reports and tables that need to be completed, but a set of methods by which a public entity can be managed, capitalizing on the most appropriate ways to organize the activities carried out.

Community legislation in the field of *internal managerial control (IMC)* is largely made up of general principles of good practice, which are also accepted internationally. The way in which these principles are transposed in the internal control systems is specific to each country, being determined mainly by the legislative, administrative, cultural conditions, etc. It is necessary to deepen these aspects of IMC from the perspective of developing managerial decision making.

In the public domain, according to the requirements of specific normative acts in Romania, as well as of the European Commission, the essential, efficient, and transparent use of public funds is essential. For the monitoring of managerial decisions in order to meet these requirements, the IMCS in public entities is established both nationally and internationally.

The implementation of IMCS is a necessary measure, in the context in which public institutions manage both the public funds allocated to them and the public patrimony under their administration.

From this perspective, it is clear that, in the absence of IMCS, it is not possible to reasonably ensure the efficiency, effectiveness and economy of the operations carried out by the public entities.

IMCS organized at the level of public entity materializes in the responsibility of the institution's management and represents the set of measures taken by management and implemented by all staff on the organizational structure, procedures, tools and techniques applied to achieve the following objectives (DCIMRI, 2019):

- a) Performing functions and duties in an economical and efficient manner;
- b) Compliance with legal regulations and management provisions;
- c) Protection of resources against abuse, loss or fraud;
- d) Developing, maintaining and providing accurate and complete financial information in order to have reliable support for management decisions.

The management of the public entity must ensure the design and implementation of IMCS that has been calibrated to the needs of the public entity, as well as monitor its operation and intervene for the correct resizing of the system so organized, whenever such a measure becomes necessary.

At the same time, IMCS can be considered a dynamic and integrated process of permanent adaptation of the public institution to changes taking place in the external environment.

Management and staff at all levels must be involved in the risk management process in order to have good results in terms of certainty of achieving the institutional objectives.

In Romania, IMCS applied to public entities is regulated, mainly, by the Order of the Secretary General of the Government no. 600/2018 and the Order of the Secretary General of the Government no. 1054/2019, which provides:

- to be adapted to the size, complexity and specific environment of the entity depending on its object of activity;
- to cover all levels of management and all activities / operations in the organization and also the internal regulations applied, the management system, staff structure, relationships established and recognized at different organizational levels;
- to be built using the same tools in all public entities: objectives, means, information system, organization, procedures and control;
- to provide a reasonable assurance that the objectives of the entity will be met - designing all activities in terms of objectives, establishing resources, responsibilities and the way of achieving.

- the costs of applying the internal control system must be lower than the benefits resulting from it;
- to be governed by the minimum management rules contained in the Standards of internal managerial control.

IMC standards define a minimum of general management requirements that must be met by all public entities.

The purpose of these control standards is to create a uniform and coherent *IMC* model that allows comparisons between entities of the same type or within the same entity, at different times and thus allows the results of the entity and its evolution to be highlighted. This standard package contains 16 standards grouped into 5 reference categories.

The evaluation of *IMCS* on each public entity is done annually by completing the self-assessment questionnaire and explaining the answers with supporting documents specific to the applied system.

The questionnaire reflects the state of implementation of the *IMC* standards for the last year of activity, in accordance with the results of the self-assessment made by each relevant department of each public institution.

For a standard there are 3 possible resolutions, depending on the answers in the questionnaire: implemented, partially implemented and not implemented. Based on the results of the questionnaire, a general report will be prepared by the top manager for the *IMC* system applied to the organization.

Depending on the number of standards that are implemented by the public entity as a whole, the implementation resolution of each *IMC* standard may have the following frameworks: fully compliant system, partially compliant system, partially limited system and non-compliant system.

The public entities that represent the main credit issuing authority collect the reports from the subordinated entities and all these must report the final situation to the Legal Authority on this matter - *Directorate for Internal Management Control and Interinstitutional Relations (DIMCIR)*.

6. Expectations regarding the application of the internal managerial control system in the Romanian public entities

Starting with the most recent report published in August 2020 by the *Directorate of Internal Managerial Control and Interinstitutional Relations (DIMCIR)* from the Secretary General of the Romanian Government (DIMCIR, 2020) on the implementation of *IMC* in Romania, the purpose of the study is to highlight problems identified in the practice of implementing *IMC* standards and judge the results in terms of expectations.

In this context, the study proposes a holistic analysis of the correlation between expectations and achievements regarding the application of *IMCS* in Romanian public entities.

According to Law no. 174 (2015), the mission of DIMCIR is to support the Romanian public entities for the implementation and development of the internal management control system, to regulate the instruments that compose it and also to respond as well as possible to the management needs of public entities in order to effectively control their own activities.

In the last 4 years, DIMCIR is the main actor, which has developed several guidelines and application methodologies to provide support for a better implementation of *IMC* standards in the public entities.

DIMCIR also publishes annually a complete report on the state of implementation of IMC standards by public entities. Otherwise, *IMC* is an area where very little has been written and published.

For internal control systems, a comprehensive evaluation model was proposed by Dittmeier et al. (2014). The European Commission (2015) published a study on the principles of public internal control.

INTOSAI GOV 9100 (2010) highlighted several guidelines for internal control standards for the public sector.

Expectations regarding the degree of implementation of *IMC* standards are correlated with managers' concerns about the quality of the steps taken to have a solid management system.

Moreover, the standards are also dependent on each other, which makes the succession of specific actions of particular importance.

For example, it is practically impossible to improve the level of implementation for Standard no. 3 - *Competence, performance* without having a higher level of implementation for Standard no. 2 - *Duties, functions, tasks*.

Taking as reference the results recorded by DIMCIR (2019), this study presents analyses of expectations in correlation with the degree of implementation presented of the *IMC* standards for 2019.

The following is an exhaustive list of potential causes that explain the poor resolution of these standards, based on the results of the 2018 Report on the implementation of the IMC standard and in correlation with the expected reasons. Also, some comments are presented on the expected results of the full implementation of each standard.

6.1. Expectations to be met, expected results and comments on *Standard no. 2 - Attributions, functions, tasks*, are presented in (Figure no. 4)

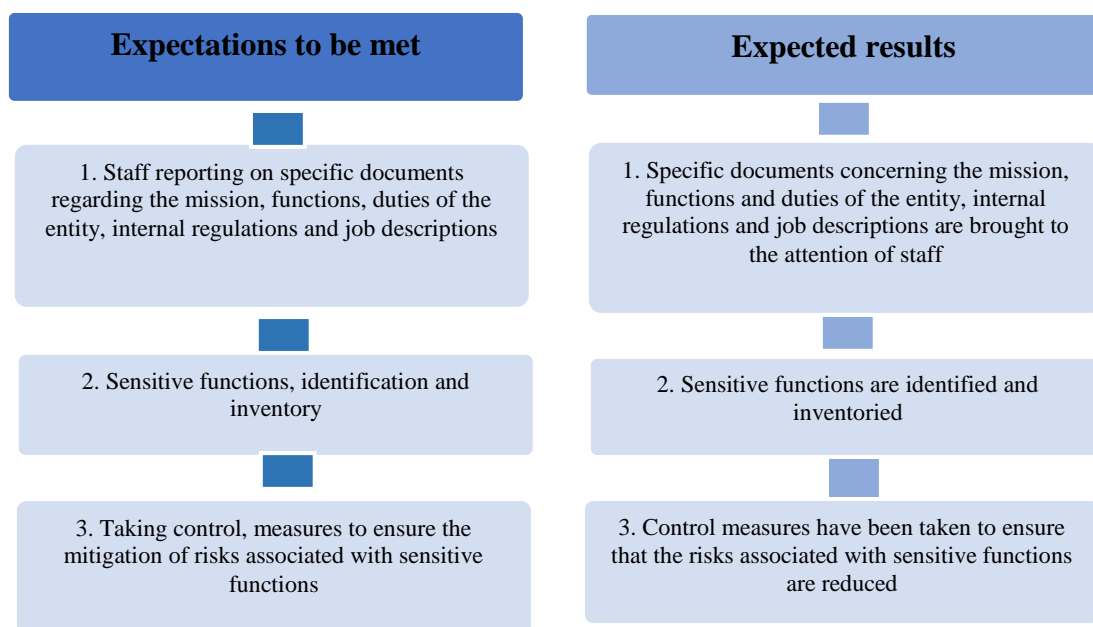


Figure no. 4.

Source: Own projection

Comments:

1. Management concerns should take into account informing staff of specific documents relating to the mission, functions and duties of the entity, internal regulations and job descriptions.

2. Only informed staff may act on behalf of the public body. It can be informed about all aspects of documents specific to public entities. If this is done, the best prerequisites are met for the performance of the tasks required.

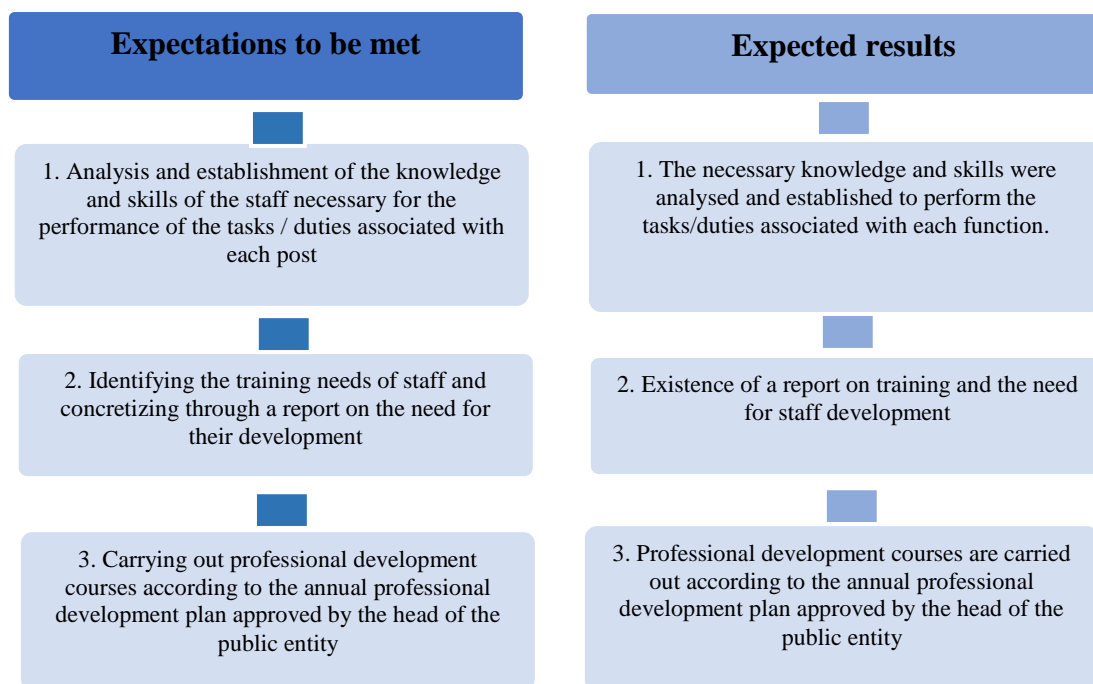
3. Sensitive functions in a public entity are subject to a very important topic of discussion. Given that some staff members may be involved in some subjective actions that may disrupt the functioning of normal activity, it is necessary to judge very well the conflict of interests, misjudgement, exposure to corruption, abnormal interests, access to information, this for to stop any temptations or mistakes that may be made knowingly or by mistake.

The recommended way to assess the sensitive function is to develop a specific procedure to have the correct identification context and to propose control measures. Once there is the general approach context for the sensitive function, it is up to the representatives of the public entities to implement the approved control measures to ensure the reduction of the risks associated with the sensitive functions.

The main dysfunctions that cause and contribute to the fulfilment of the expectations regarding the *IMC Standard no. 2 - Duties, functions, tasks*, are the following:

1. specific documents relating to the mission, functions, duties of the entity, internal regulations and job descriptions are not disclosed to staff or to only part of them;
2. lack of evidence regarding the information of the personnel regarding the documents specific to the public entities;
3. total or partial negligence or technical deficiencies in informing the staff about the documents specific of public entities;
4. lack of information procedure when changes, revisions or new editions appear or when documents specific to public entities are adopted;
5. there is no specific definition or information stipulated or approved in the public entity regarding the sensitive functions;
6. there is no specific context to correctly identify sensitive functions and to propose control measures for this situation;
7. sensitive functions are not identified;
8. sensitive functions are not analysed in terms of risk management;
9. there is no procedure to be applied for the analysis of sensitive functions;
10. there is no action plan on sensitive functions;
11. there are no proactive measures associated with the risk induced by sensitive functions;
12. there is no control measure to ensure the mitigation risk associated with sensitive functions.

6.2. Expectations to be met, expected results and comments on *Standard no. 3 - Competence, performance are presented in (Figure no.)5.*



Source: Own projection
Figure no. 5

Comments:

1. In order to carry out the tasks and duties associated with each employee, it is mandatory to involve the appropriate staff.

2. In order to meet the performance requirements of the management of the public entity, in terms of efficiency, time consumption, budget, transparency and fairness, each employee should have the competence, knowledge and skills to perform, with the required productivity, the tasks data.

3. The correlation of the qualities necessary for the fulfilment of the specific tasks given with those held by the staff is the duty of each management team of the public entity. In this regard, it is crucial to know the requirements of each organization chart and to correlate them with the staff's ability to perform their tasks.

Based on the results, a report is prepared containing the needs to be met, as well as the needs for training and staff development in terms of the courses and training programs in which staff should be involved.

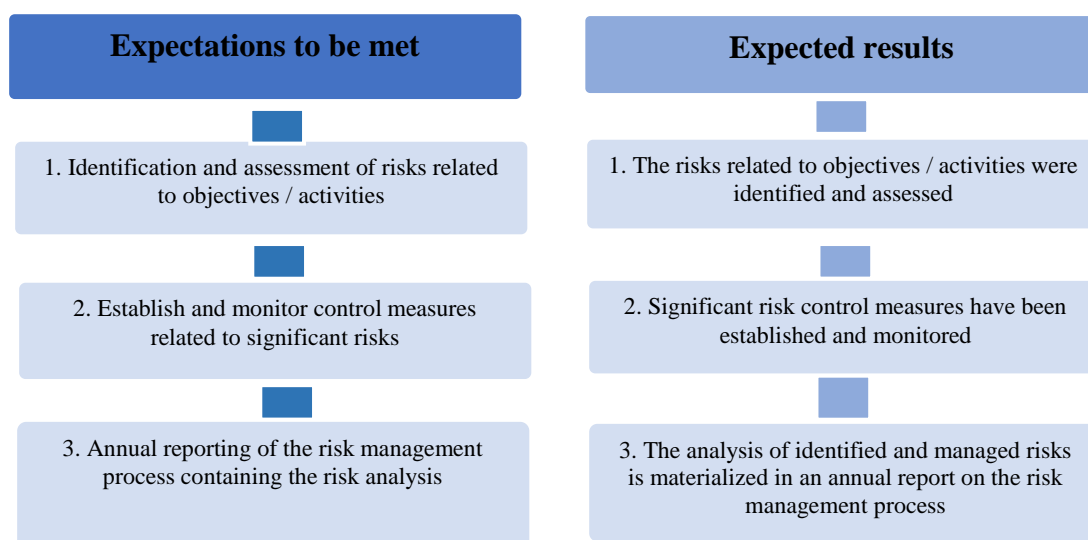
Once the annual professional development plan is approved by the head of the public entity, the staff must participate in that training. It is management's primary concern about training costs and training planning, as all staff training will help the entity perform better.

The main dysfunctions that cause and contribute to the fulfilment of the expectations regarding the *IMC Standard no. 3 - Competence, Performance*, are the following:

1. the necessary knowledge and skills have not been analysed and have not been established, in order to fulfil the tasks/duties associated with each function;
2. performance requirements were not analysed in terms of efficiency, time consumption, budget, transparency and fairness;

3. the management of the public entity staff did not analyse the knowledge and skills of the employee to perform the given tasks with the required productivity;
4. the requirements of each function in the organizational chart have not been analysed and/or have not been correlated with the staff's ability to perform the specific tasks included in the job description;
5. no training needs assessment was developed involving the staff of the public entity;
6. the annual report on vocational training and staff development needs has not been prepared;
7. the annual professional development plan was not approved by the head of the public entity;
8. in general, there are no professional training or staff development activities in the public entity;
9. there are no budgetary provisions for the professional training of the staff or the development of the staff;
10. Lack of interest in staff training or staff development in terms of staff.

6.3. Expectations to be met, expected results and comments on *Standard no. 8 - Risk management* are presented in (Figure no.6)



Source: Own projection

Figure no. 6

Comments:

1. Risk management may be the main approach to the safety of achieving objectives. This should be considered an active tool for analysing disruptive factors that may affect the achievement of objectives.

2. The head of the public entity shall organize and implement a solid risk management process that facilitates the achievement of objectives in terms of economy, efficiency and effectiveness.

To achieve useful results, the risk management policies must include a risk register in which to write down all important information about risk events that may occur.

3. Based on the monitoring and evaluation risk approach, decisions should be taken to improve the risk management policies applied. For the public entity, these decisions should lead to an improved approach to risk management and a modern culture of risk management.

Regarding the risk management process, the awareness of the entity's staff is still low, its usefulness and necessity not being sufficiently understood for the well-being of the current activity of the public entity. From these points of view, some of the main dysfunctions that cause and contribute to the non-fulfilment of the expectations regarding the *IMC Standard no. 8 - Risk management* is presented as follows:

- there is no risk management approach applied to the public entity or an incipient one;
- the problems are generally solved on the spot, without previous major/minimum analyses;
- no proactive approach is applied to the public entity for the activities carried out;
- there are only reactive measures established on the spot;
- there is no risk identification in the public entity related to objectives/activities/results;
- there is no risk assessment in the public entity related to objectives/activities/results;
- no risk is monitored in the activities of the public entity;
- there are no control measures related to significant risks;
- there are no reports on the risk management process;
- risk management reports do not include the risk register;
- the annual reports on the risk management process do not contain the risk analysis;
- the annual reports on the risk management process contain only the identification of risks;
- there are, from time to time, partial reports on the risk management process.

In order to perform a justified risk analysis, but also to reduce the degree of subjectivity of the risk analysis, it is necessary to use well-defined risk analysis criteria. These criteria that are taken into account must include sufficient information and the necessary details on how to effectively perform the risk analysis and establish the risk score or risk classification.

Unfortunately, there are only a few cases in which public entities have developed a clear and useful system adapted to that public entity for specific risk analysis criteria.

Therefore, it is advisable to take a proactive management approach. This means that it is necessary to design and implement some measures that focus on identifying possible risks before the risks materialize and before they produce unfavourable consequences for the objectives and activities that have been set.

On the other hand, by applying proactive management, a balance must establish a balance between excessive risk and oversized control.

Other causes that affect the outcome of the risk management approach that should be considered to increase the accuracy of implementation can be considered the following:

- the training needs in the field of risk management were not identified;
- the risk management process is not functional;
- the stages related to the risk management process were not completed chronologically and successively, which led to an inadequate treatment of the identified risks;
- the activities regarding the identification, assessment and response to risk are not based on a system procedure on risk management that is related to the needs of the public entity;
- there is no responsibility of the staff regarding the risk management activities to be performed, by not mentioning the specific attributions regarding the risk management in the job descriptions;

- risk assessment and classification of the type of risk response are not in accordance with internal procedures;
- the confusion created between the risk and the cause that generated its occurrence, as well as in the ranking and prioritization of the risk treatment;
- The risk registers used by public entities are incomplete and are not updated in the format established for use.

The expression of the risks analysed by exposure to risk leads to the achievement of the risk profile of the public entity.

For a public entity, this risk profile is unique and personalized in terms of objectives, activities carried out and the general context. There is no risk profile for the same type of public entities, thus being particular to each.

In order to achieve a coherent risk management, the process involves:

- preliminary analysis of the risk exposure taken into account, because the identification of risk sources is a fundamental and decisive step towards a correct risk assessment for the public entity;
- identifying risks that may affect the efficiency and effectiveness of activities related to specific objectives, without ignoring the rules and regulations;
- confidence in the financial information and in the applied management strategy;
- protection of goods, respectively prevention and detection of fraud;
- defining the acceptable level of risk exposure and the level of risk tolerance;
- assessing the probability of risk materialization, determining the risk impact and exposure to risk;
- Establishing the type of risk response and mapping the adopted strategy.

The impact of a risk may concern the qualitative component, the budgetary patrimonial component, the effort component (human resources) and the time component, depending on the proposed risk tolerance.

Establishing the risk tolerance limit is the responsibility of the entity's manager and has implications for the costs associated with control measures.

In relation to risk tolerance, the risk tolerance limit is set, which is a limit that is analysed from the following perspectives:

- *Cost-benefit perspective* - the purpose of this analysis is to determine whether or not the proposed tolerance limit involves excessively high "costs" in relation to the benefit;
- *Total perspective of resources* - that the public entity can allocate to be used in the application of control measures.

If resources are insufficient, there is a classification of risks according to the priorities of the public entity and also a readjustment of the tolerance limits for less priority risks.

An important part of the identified risks is caused by non-compliance with existing procedures and, in some cases, the circumstances that favour their occurrence are even the result of inadequate control of activities. In general, too many risks are due to a lack of procedures.

Ignorance or ambiguity of rules is often invoked as an explanation for failure. It is the obligation of the manager to clarify what needs to be done and how it needs to be done by those involved, without leaving to subjective interpretations. It is recommended to develop a system procedure based on a risk management approach that applies to the public entity.

The procedure should be designed so that it can be used by all departments within the public entity to manage the risks that may affect the achievement of the specific objectives of these departments.

Its role would be to provide the staff of the public entity with a functional working tool to support risk management activities in a methodical and efficient way, in order to meet the objectives of the public entity.

This ensures the continuity of the risk management process over time, even in conditions of staff turnover. For effective risk management, each department manager at the first level of management of the public entity must appoint by internal decision the person responsible for risk management. This person also assists him in approaching the risk management applied to the public entity.

The risk manager of the department is responsible for the staff who advise the activities within the risk management approach.

The action plan represents the activities that need to be carried out to achieve the objectives. Through a risk management approach, this plan must be doubled by the risk mitigation plan.

From a risk management perspective, achieving the objectives means:

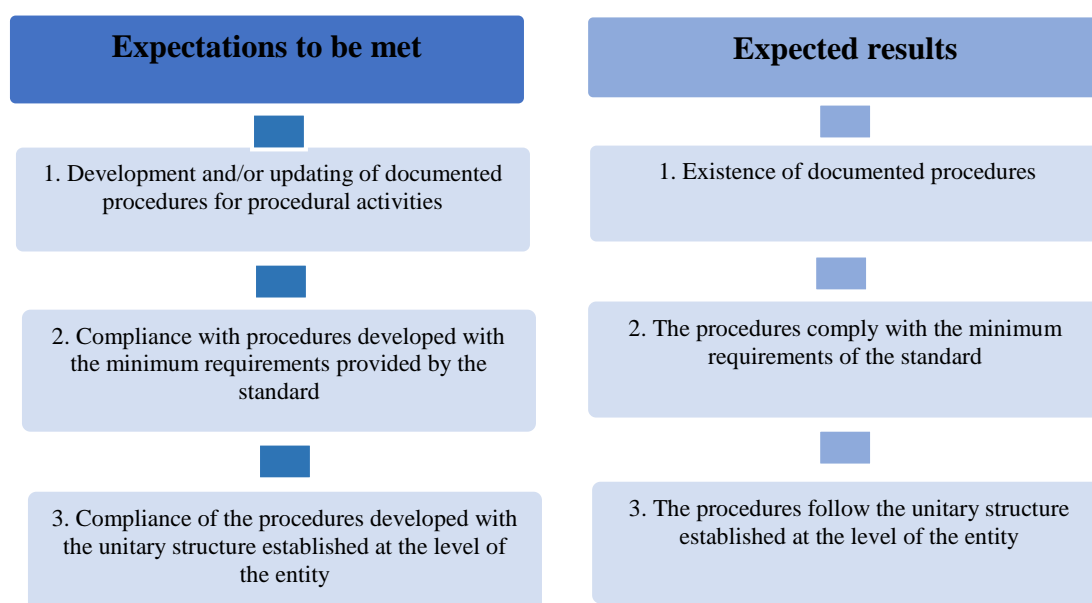
1. to plan the activities and actions to be carried out in order to achieve the proposed objectives (plan A);
2. to plan the necessary internal control actions for risk management and to integrate these actions in the general plan of activities (plan B);
3. To plan the actions to be taken if the risks materialize (plan C).

All these 3 plans are the essential elements of an effective general management approach that also integrated a risk management approach. It is necessary to ensure a favourable and appropriate information framework to inform all employees about the risk management process by creating an intranet section in which experiences are presented and communicated to those who can benefit from them.

The risk management process is of particular importance and has a high impact on achieving the objectives of the public entity. This requires adequate protection regarding access by unauthorized persons from the external environment.

6.4. Expectations to be met, expected results and comments on *Standard no. 9 - Procedures are shown in (Figure no.7)*

Figure no. 7



Source: Own projection

Comments:

1. Rules based on procedures must be an effective control tool in the IMC system. A procedure is meant to standardize the activity it describes, thus being in fact a detailed analysis of the parameters and factors influencing that particular/specific activity.

2. A procedure brings predictability and stability in the development of the respective activity, being a presentation, step by step, of all the dependence and correlation factors that influence the respective activity. By using rules based on procedures, it is possible to better plan and monitor the development of that activity in order to achieve the best results, including the ability to set performance indicators.

3. The procedures must ensure a separation and delimitation for each phase, which means that the role of involvement in their initiation, elaboration, verification and approval is entrusted to different persons.

The main dysfunctions that cause and contribute to the fulfilment of the expectations regarding the *IMC Standard no. 9 - Procedures*, are presented below:

- no documented procedures were developed within the public entity;
- instead of procedures, the methodologies and regulations are still used, which include all the necessary information that should have been used through rules based on procedures;
- there is still a lack of vision on the usefulness and usefulness of descriptions of activities based on the procedure compared to regulations that are full of details about all activities carried out;
- the activities that require the elaboration of the procedures were not inventoried;
- the elaborated procedures do not agree with the content and minimum requirements of the standard;
- a procedure for the unitary development of all the entity's procedures has not yet been developed;
- the main procedure for the elaboration of the procedures is not applicable or is not adequate for all the procedures that have been developed;
- there are gaps in the conformity of the elaborated procedures with the framework of the main procedure used for the development of other procedures;
- There are no trained or trained personnel in the elaboration of the procedures.

6.5. Expectations to be met, expected results and comments on *Standard no. 11 - Continuity of activity*, are presented in (Figure no. 8)

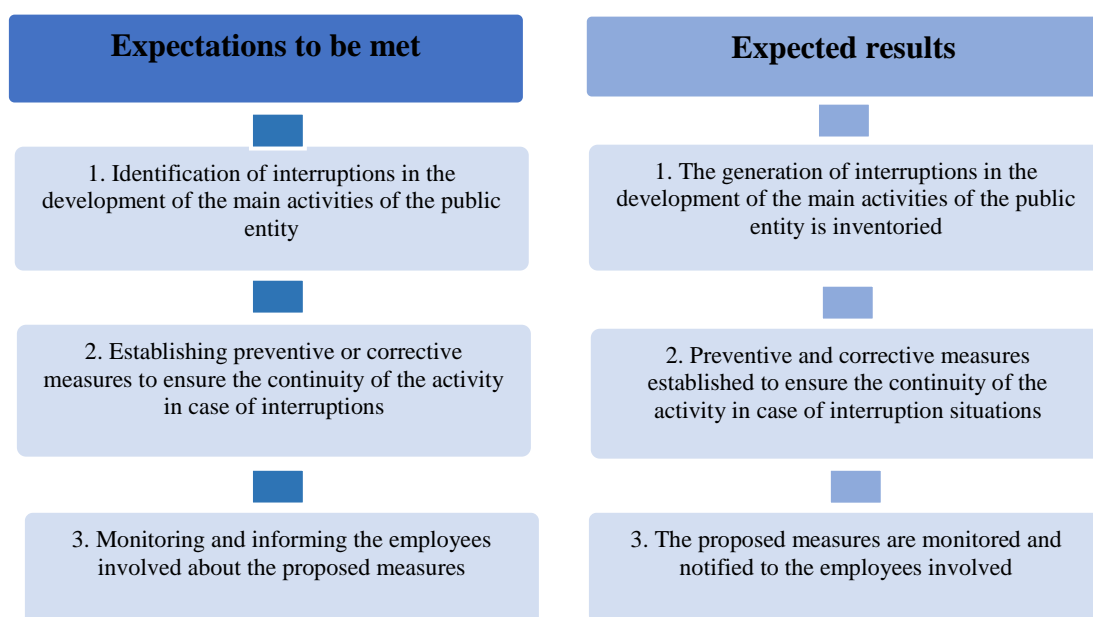


Figure no. 8
Source: Own projection

Comments:

1. Situations that can lead to major disruption or even disruption of the activity of the public entity are a huge problem for the stability of the entity. It is mandatory to analyse the factors that may affect the normal activity of the public company. In general, this analysis is done in a formal way, without a strategic plan or an action plan subject to the approval of the senior management of the public entity.

2. It is very important to identify the causes that can lead to a major disruption of the activity of the public entity in order to prepare, in time, the appropriate measures to be taken. This plan should contain 2 types of measures, depending on the applicable moment: predictive actions and corrective actions.

Both points of view are important, because the public entity must be prepared in both situations - be prepared and responsive if necessary. From this point of view, this plan of measures focuses on proactive measures to reduce the vulnerability of the public entity to any situation that may lead to business interruption.

3. The provisions of this plan must be well known among employees, so that they can understand and act consciously, with maximum performance and have an open mind.

The main dysfunctions that cause and contribute to the fulfilment of the expectations regarding the *IMC Standard no. 11 - Continuity of activity*, are presented below:

- the situations that can lead to the major disturbance of the activity of the public entity are not identified;
- the situations that can lead to the major interruption of the activity of the public entity are not analysed;
- the causes that can lead to the major disturbance of the activity of the public entity are not analysed;
- the consequences and the impact generated by the occurrence of cases that can lead to the major disruption of the activity of the public entity are not analysed;
- the situations that can lead to the interruption of the activity of the public entity are not identified;

- the situations that can lead to the interruption of the activity of the public entity are not analysed;
- the causes that can lead to the interruption of the activity of the public entity are not analysed;
- the consequences and the impact generated by the occurrence of cases that may lead to the interruption of the activity of the public entity are not analysed;
- in order to ensure the continuity of activities, no preventive action plan is established for cases that may lead to the interruption of the activity of the public entity;
- in order to ensure the continuity of activities, a corrective action plan is not established for cases that may lead to the interruption of the activity of the public entity;
- the action plan prepared in case of interruption of the activity of the public entity is not monitored and/or updated periodically or when necessary;
- Employees are not informed about the provisions of the action plan to be used in case of interruption of the activity of the public entity.

7. Conclusions

The achievement of the mission of public entities depends on the objectives set as a final result of the strategies developed and the activities planned and, at the same time, on the climate created within a public entity that must be favourable to ensure the performance and quality of services provided.

From this point of view, there are differences of perception regarding the organization of the internal managerial control system at the level of public entities depending on the application of the amendments to the Code of internal managerial control by Order of the Secretary General of the Government no. 600/2018.

It is very important to establish the level of trust in the approach and application of a standard of internal managerial control and the analysis of the importance of the stages of evaluation of the internal managerial control system to be performed by internal public auditors.

A special importance is the analysis of the relationship between the results of implementation and those of the development of the internal managerial control system at the level of public entities.

Currently, implementing rules are established for all the above IMC standards and specific activities are being carried out to maintain and develop these standards, but, as in any field, there is possibility of improvement. It is important to maintain and develop a coherent internal management control system, taking into account the minimum requirements of internal management control standards.

Particular importance must be given to *Standard no. 8 - Risk management*, which is a key element of the internal management control system. Risk management involves a series of complex activities, because the risks are found in various fields and categories: security, war scenarios, financial, environment, IT, reputation, occupational health, etc.

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DECENTRALIZATION, ACCORDING TO THE ADMINISTRATIVE CODE

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Abstract: *The decentralization regime is based on the legal recognition of local authorities organized in administrative units at the territorial level. These communities are provided with their own material and financial means that they can use to solve local problems. Decentralization appears to be the opposite of centralization, a regime in which local problems are solved by authorities freely chosen by the electorate. The status of local authorities derives from the law. They cannot make changes, but must be subject to any changes made by the state. The component collectivities are not associated with the exercise of central power, they have autonomy only of an administrative nature. The state controls the legality of the actions of local authorities and not their membership.*

Keywords: decentralization, centralization, administrative skills.

JEL Classification: K10.

1. Introduction

The decentralization regime is based on the legal recognition of local authorities organized in administrative units at the territorial level. These communities are provided with their own material and financial means that they can use to solve local problems.

Decentralization appears to be the opposite of centralization, a regime in which local problems are solved by authorities freely elected by the electorate. The status of local authorities derives from the law. They cannot make changes, but must be subject to any changes made by the state. The component collectivities are not associated with the exercise of central power, they have autonomy only of an administrative nature. The state controls the legality of the actions of local authorities and not their affiliation.

2. The principles on the basis of which the decentralization process takes place

The foundation of decentralization is twofold: political and administrative. From a political point of view, decentralization is the expression of "democracy applied to the administration", ensuring a system in which citizens participate in the conduct of local affairs through the bodies elected by them. The political aspect of decentralization is also recognized by the European Charter of Local Self-Government, considering decentralization as one of the democratic principles of Europe.

Thus, according to art. 76 of O.G. no. 57/2019, the principles on the basis of which the decentralization process takes place are the following:

a) the principle of subsidiarity, which consists in the exercise of competencies by the local public administration authority located at the administrative level closest to the citizen and which has the necessary administrative capacity;

b) the principle of ensuring the resources corresponding to the transferred competencies;

c) the principle of responsibility of the local public administration authorities in relation to their competences, which imposes the obligation to respect the application of quality standards and cost standards in the provision of public services and public utility;

d) the principle of ensuring a stable, predictable decentralization process, based on objective criteria and rules, which should not constrain the activity of the local public administration authorities or limit the local financial autonomy;

e) the principle of equity, which involves ensuring the access of all citizens to public services and public utility.

The rules of the decentralization process establish that the Government, the ministries and the other specialized bodies of the central public administration transfer competences to the authorities local public administration at the level of communes, cities, municipalities or counties, as the case may be, respecting the principle of subsidiarity and the criterion of the geographical area of the beneficiaries, according to which the transfer of competence regarding the provision of a public service is made to that level of local public administration. the geographical area of the beneficiaries¹.

The transfer of competence is made by law and is based on impact analyzes and monitoring indicator systems, developed by ministries and other specialized bodies of the central public administration, in collaboration with the coordinating ministry of the decentralization process and the associative structures of local public administration authorities.

Thus, if there are databases at national level within the respective public service, they remain in the public or private property of the state and in the administration of the Government, ministries or other specialized bodies of the central public administration, as the case may be, which have transferred competences for the powers exercised by the central public administration authorities. For the competencies transferred to the local public administration authorities, the databases related to the respective public service remain the property of the state, and the local public administration authorities, to which the competencies have been transferred, have attributions of data entry, updating, exploitation and capitalization. The central public administration authorities are obliged to ensure the access to the respective databases to the central and local public authorities in compliance with the legal provisions.

The methodologies regarding the introduction, updating, exploitation and capitalization of data by the local public administration authorities of these databases are regulated by administrative acts of the heads of the ministries or of the other specialized bodies of the central public administration, as the case may be, which transferred the competencies.

Ministries and other specialized bodies of the central public administration, which have not organized subordinated structures in the territory or decentralized public services, in collaboration with the coordinating ministry of the decentralization process and with the administrative-territorial units, may organize pilot phases for testing and evaluation. the impact of the solutions proposed for the decentralization of the competencies they are currently exercising.

For the competencies proposed to be decentralized, which are exercised by decentralized structures or subordinated to the ministries and other specialized bodies of the central public administration, organized at local level, no pilot phases are organized.

The stages of the transfer of competencies are the following²:

a) the elaboration by the coordinating ministry of the decentralization process of the general decentralization strategy or, in case of non-existence of a general decentralization strategy by which the opportunity of transferring competencies from the central public administration to the local public administration authorities is analyzed, the elaboration by ministries and other specialized bodies of the central public administration of sectoral decentralization strategies;

b) the identification by the Government, ministries and other specialized bodies of the central public administration of the necessary resources and of the integral costs related

¹ Art. 77 of the Administrative Code entered into force by Government Emergency Ordinance no. 57/2019, published in the Official Gazette of Romania, Part I, no. 555 of July 5, 2019.

² Art. 78 of the Administrative Code entered into force by Government Emergency Ordinance no. 57/2019, published in the Official Gazette of Romania, Part I, no. 555 of July 5, 2019.

to the competences that are transferred, as well as of the budgetary sources on the basis of which they are financed;

c) the organization by the ministries and the other specialized bodies of the central public administration of the eventual pilot phases in order to test and evaluate the impact of the proposed solutions for decentralization of competencies, which are not exercised by structures subordinated to the line ministries;

d) the elaboration by the ministries and the other specialized bodies of the central public administration of the impact analyzes of the transfer of competencies;

e) the elaboration by the ministries and the other specialized bodies of the central public administration of the draft sectoral laws through which competences are transferred to the local public administration authorities.

In all these stages of the process of transfer of competencies, it is mandatory to consult the associative structures of the local public administration authorities. The government, ministries and other specialized bodies of the central public administration ensure, in collaboration with the associative structures of the local public administration authorities, the long-term correlation between the transferred responsibilities and the related resources, so as to cover the cost variations in providing public and utility services. decentralized public.

With regard to the transfer of financial resources, it should be noted that the transfer of competences as well as their exercise are done at the same time as ensuring all necessary resources. Thus, the financing of the delegated competences is fully ensured by the central public administration. The delegated powers are exercised by the local public administration authorities or by other local public institutions, on behalf of a central public administration authority, within the limits established by it¹.

Ministries and other specialized bodies of the central public administration establish cost standards for financing public services that have been decentralized until the entry into force of the Administrative Code, as well as those to be decentralized and quality standards to ensure their provision by local public administration authorities. The cost and quality standards for public services that have been decentralized shall be approved within a maximum of 12 months from the entry into force of the Administrative Code. The cost and quality standards for public services to be decentralized shall be approved within a maximum of 12 months from the entry into force of sectoral decentralization laws.

Ministries and other specialized bodies of the central public administration have the obligation to periodically update the cost and quality standards for all these public services. The elaboration and updating of cost and quality standards are done in collaboration with the associative structures of the local public administration authorities, according to the provisions in force, under the coordination of the coordinating ministry of the decentralization process.

These cost and quality standards are approved by Government decision, at the proposal of the ministries or other specialized bodies of the central public administration, with the approval of the coordinating ministry of the decentralization process, the Interministerial Technical Committee for Decentralization and the Local Public Finance Committee. , as the case. Government decisions on the periodic updating of cost and quality standards are the basis for determining and allocating amounts deducted from some state budget revenues to local budgets, to finance decentralized public services.

Local government authorities are responsible for complying with the application of quality and cost standards in the provision of decentralized public services and public

¹ Art. 79 of the Administrative Code entered into force by Government Emergency Ordinance no. 57/2019, published in the Official Gazette of Romania, Part I, no. 555 of July 5, 2019.

utilities and may increase the quality and cost level based on their own revenues and other attracted sources, within the limits of the law.

In providing decentralized public services and public utilities, local public administration authorities are obliged to ensure the application of quality standards and to ensure the financing of local public services at least at the level of established cost standards.

The coordinating ministry of the decentralization process is the ministry with attributions in the field of public administration, being the one that approves, according to the law, the initiatives and drafts of normative acts regarding administrative and financial decentralization, elaborated by ministries, respectively by other specialized bodies of central public administration.

The coordinating ministry of the decentralization process supports the substantiation and implementation of the Government's decentralization policy by¹:

- a) elaboration of the strategy and general decentralization policies;
- b) technical coordination and monitoring of the decentralization process;
- c) elaboration of the policy of financial and fiscal decentralization, in collaboration with the ministry with attributions in the field of public finances;
- d) providing expertise and specialized technical assistance to ministries and other specialized bodies of the central public administration, in order to develop and implement sectoral decentralization strategies;
- e) collecting and managing, in collaboration with the ministry with attributions in the field of public finances, with the other ministries and specialized bodies of the central public administration, with the local public administration authorities, as well as with other public authorities and institutions, the statistical data necessary for substantiation; estimating the impact of decentralization policies;
- f) approving the cost and quality standards corresponding to certain decentralized public and public utility services elaborated, respectively, updated by ministries, by the other specialized bodies of the central public administration in collaboration with the associative structures of the local public administration authorities;
- g) supervising the fulfillment, by the ministries and the other specialized bodies of the central public administration, of the function of methodological coordination of the decentralized public services and public utility.

Ministries and other specialized bodies of the central public administration and local public administration authorities have the obligation to transmit to the coordinating ministry of the decentralization process all the information necessary to substantiate, implement and monitor the decentralization process and to ensure the interoperability of specific data collected with the database. the coordinating ministry of the decentralization process, set up for this purpose.

In exercising this function of methodological coordination of decentralized public utility services, ministries and other specialized bodies of the central public administration also have the obligation to monitor compliance by local public administration authorities, quality standards and, where appropriate, cost.

For the general coordination of the decentralization process, the Inter-ministerial Technical Committee for Decentralization functions, headed by the Minister with attributions in the field of public administration, as coordinator of the public administration reform. The representatives of the associative structures of the local public administration authorities are also part of the Interministerial Technical Committee.

¹ Art. 81 of the Administrative Code entered into force by Government Emergency Ordinance no. 57/2019, published in the Official Gazette of Romania, Part I, no. 555 of July 5, 2019.

At the level of the ministries and of the other specialized bodies of the central public administration, working groups are set up for the decentralization of competencies, and the way of organization, functioning and attributions of the technical structures provided for them are established by Government decision.

The Committee for local public finances, established under the law regulating local public finances, complementary to its role in the process of elaborating financial regulations, has a consultative role in the elaboration and implementation of financial and fiscal decentralization policies. The representatives of the associative structures of the local public administration authorities are also part of the Committee for local public finances. The coordinating ministry of the decentralization process and the ministry with attributions in the field of public finances, through the specialized structures, ensure together the technical secretariat of the Interministerial Technical Committee for decentralization and of the Committee for local public finances. Monitoring the stage of the decentralization process The coordinating ministry of the decentralization process annually presents to the Government, for information, a report on the state of the decentralization process.

3. Conclusions

No state is the only public service contractor. Local authorities take care of a number of public services, more specifically local ones. Local authorities are seen as natural societies, equal to or prior to the state, with rights that it recognizes and attributes.

For economic, political, social reasons, the state, even in the countries with the widest local autonomy, has developed its powers through control procedures. Imitating the example given by the countries with extended local liberties and under the action of modern ideas, in the countries with centralization regime, a progressive decentralization was carried out, the management of the business was more and more attributed to the elected bodies.

For countries where, within the law, autonomy is the fundamental principle, we speak of local government. If at the national echelon, the government imposes the solution in terms of major problems, affecting the whole national community, at the local echelon is recognized the competence of local authorities to address issues that are essential to them. In some countries (for example, the United Kingdom) the central government has allowed a large autonomy of the lower communities on which it is content to watch to remain almost parallel. In other countries, such as France and Spain, the state has subordinated local authorities. But in the last hundred years certain liberties have been restored to them little by little.

This was due to a complexity of social and economic relations in the context of increasing individual needs. The central government can no longer ensure a satisfaction of the interests of the citizen only in the capital. These local communities need to manage their own interests because they know them best.

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QUALITY EDUCATION AND REDUCING SCHOOL DROPOUT RATE AMONGST YOUTH – EU PRIORITIES IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT

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Abstract: Ensuring quality education is one of the Sustainable Development Goals set by the UN, in the 2020 Agenda. In this regard, the issue of poor education of children and young people is a priority on the EU agenda in the next multi-annual framework (2021-2027). Access to education is essential for the proper functioning of a sustainable society. Education is a process that takes place throughout life, regardless of age. To reach this goal, school dropout has to be reduced and improvement of the educational system is necessary, regardless of geographical location and domain, respectively origin. This is why the EU's goal is to reduce early school dropout rates in the EU to below 10%. Increasing the number of young people going towards higher education, as well as improving the quality of education, are very important for sustainable and inclusive growth. Sustainable development means ensuring good conditions on this planet for future generations.

Key words: sustainable development, education expenses, school dropout, quality education, education system.

JEL Classification: A20, F15.

1. Introduction

The European Union is an integration group which, through cohesion policy, plans to reduce disparities between the 27 member states and the European region. Uneven developments are obstacles to the integration process (Șerbănică et al, 2016).

The education system is represented by all the school and educational institutions of a society that are organized and function in a correlated way, according to certain principles, in order to achieve certain purposes of education, specific to a historical period. Thus, abandoning the education system early has major social and economic implications. Young people who leave school prematurely are more prone to the risk associated with unemployment or earning less once they find a job. At the level of the European Union, we are looking for viable solutions for keeping young people in school, for transforming them into the superior qualified human capital so necessary for the evolution of European states.

2. Reducing school dropout among young people aged between 18 and 24

In the actual context of the rapidly declining population at EU level, early school dropout will compromise member states' future growth prospects.

The causes of early school leaving are many and varied: lack of access to education and reasonable accommodation in education, lack of access technologies and devices needed in the education process, lack of support services, lack of transportation, poor family awareness of the importance of development the young person's potential, discriminatory or negative attitudes regarding the school inclusion of young people with disabilities and / or special educational needs, etc. Evidently, the financial support from governments is also a must, as it is essential that every young person can enjoy free education. At EU level, there are major differences in education spending.

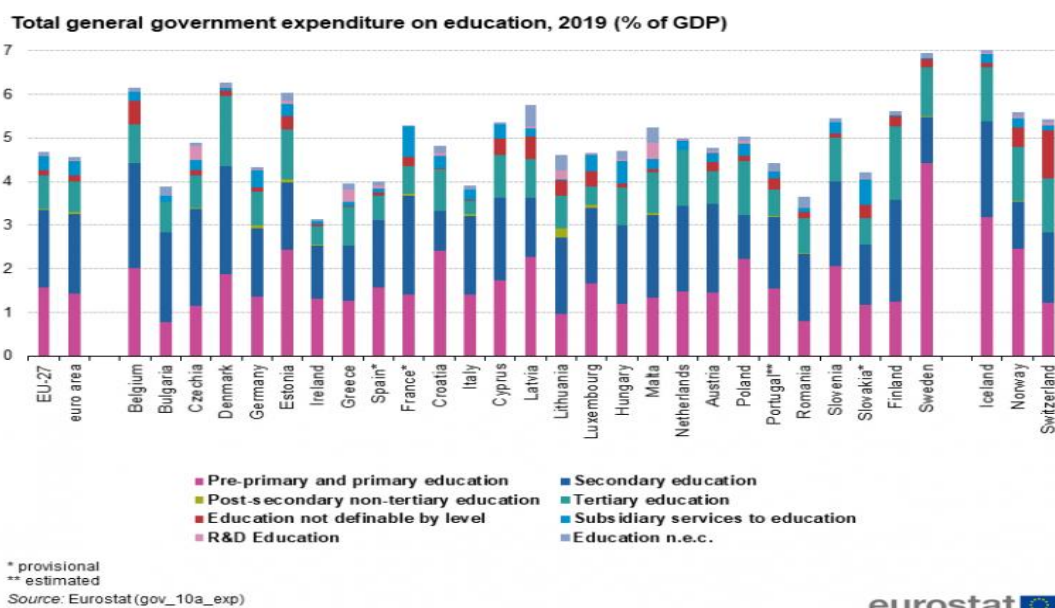


Figure no. 1

Source: https://ec.europa.eu/eurostat/statistics-explained/index.php/Government_expenditure_on_education#Expenditure_on_education.27
[accessed 9 March 2021]

EU spending on education has risen to EUR 654 billion, or 4.7% of GDP in 2019. According to the European Commission, spending on education in Romania remains among the lowest in the EU (3.6% of GDP compared to EU average), outstanding achievements in quality education are likely to be made over time.

Total general government expenditure on education, 2019, % of GDP

	Education	Pre- primary and primary education	Secondary education	Post- secondary non-tertiary education	Tertiary education	Education not definable by level	Subsidiary services to education	R&D Education	Education n.e.c.
EU-27	4.7	1.6	1.8	0.0	0.8	0.1	0.3	0.0	0.1
euro area	4.6	1.4	1.8	0.0	0.7	0.2	0.3	0.0	0.1
Belgium	6.2	2.0	2.4	0.0	0.9	0.5	0.2	0.0	0.1
Bulgaria	3.9	0.8	2.0	0.0	0.7	0.0	0.1	0.0	0.2
Czechia	4.9	1.1	2.2	0.0	0.8	0.1	0.2	0.3	0.1
Denmark	6.3	1.9	2.5	0.0	1.6	0.1	0.1	0.0	0.1
Germany	4.3	1.4	1.6	0.1	0.8	0.1	0.4	0.0	0.1
Estonia	6.0	2.4	1.5	0.1	1.1	0.3	0.3	0.1	0.2
Ireland	3.1	1.3	1.2	0.0	0.4	0.1	0.1	0.0	0.0
Greece	4.0	1.3	1.3	0.0	0.9	0.0	0.1	0.3	0.1
Spain*	4.0	1.6	1.5	0.0	0.6	0.1	0.1	0.1	0.1
France*	5.3	1.4	2.3	0.0	0.6	0.2	0.7	0.0	0.0
Croatia	4.8	2.4	0.9	0.0	1.0	0.0	0.3	0.1	0.2
Italy	3.9	1.4	1.8	0.0	0.3	0.0	0.2	0.0	0.1
Cyprus	5.4	1.7	1.9	0.0	1.0	0.4	0.3	0.0	0.0
Latvia	5.8	2.3	1.3	0.0	0.9	0.5	0.2	0.0	0.5
Lithuania	4.6	1.0	1.8	0.2	0.7	0.4	0.0	0.2	0.3
Luxembourg	4.7	1.7	1.7	0.1	0.4	0.3	0.4	0.0	0.0
Hungary	4.7	1.8	1.8	0.0	0.9	0.1	0.5	0.0	0.2
Malta	5.3	1.3	1.9	0.0	1.0	0.1	0.2	0.4	0.4
Netherlands	5.0	1.5	2.0	0.0	1.3	0.0	0.2	0.0	0.0
Austria	4.8	1.5	2.0	0.0	0.7	0.2	0.2	0.0	0.1
Poland	5.0	2.2	1.0	0.0	1.2	0.1	0.3	0.1	0.1
Portugal**	4.4	1.5	1.6	0.0	0.6	0.2	0.2	0.0	0.1
Romania	3.6	0.8	1.5	0.0	0.8	0.1	0.1	0.0	0.3
Slovenia	5.5	2.1	1.9	0.0	1.0	0.1	0.2	0.0	0.1
Slovakia*	4.2	1.2	1.4	0.0	0.6	0.3	0.6	0.0	0.1
Finland	5.6	1.2	2.3	0.0	1.7	0.2	0.0	0.0	0.1
Sweden	6.9	1.1	1.1	0.0	1.1	0.2	0.0	0.0	0.1
Iceland	7.1	3.2	2.2	0.0	1.2	0.1	0.2	0.0	0.1
Norway	5.6	2.5	1.1	0.0	1.2	0.5	0.2	0.0	0.1
Switzerland	5.4	1.2	1.6	0.0	1.2	1.1	0.1	0.1	0.1

(-) data not available
* provisional
** estimated
Source: Eurostat (online data code: gov_10a_exp)

eurostat

Figure no. 2

Source: https://ec.europa.eu/eurostat/statistics-explained/index.php/Government_expenditure_on_education#Expenditure_on_education.27
[accessed 9 March 2021]

Of the total EU spending on education, spendings on pre-school and primary education accounts represent 1.6% of GDP, for secondary education 1.8% of GDP, and for tertiary education, the EU has reported it being 0.8% of GDP.

There are big differences at the level of EU Member States. As a percentage of GDP, the highest amounts were reported by Sweden (6.9% of GDP), Denmark (6.3% of GDP), followed by Belgium (6.2% of GDP) and Estonia (6.0 % of GDP).

In 2019, at EU level, education expenditure was broken down into chapters as follows: approximately 64% were in the form of "employee compensation", such as salaries, social contributions of employers, 14% were in the form of "intermediate consumption", such as purchases of goods and services, 6% were in the form of social benefits, such as school transport, 6% were in the form of other expenses (eg payments to private schools). Capital investment (eg for buildings) accounted for about 7% of education expenditure. Between 1995 and 2019, at EU level, government spending on education, relative to GDP, ranged from 4.7% of GDP to 5.1% of GDP. In 1995, they amounted to 4.9% of GDP, followed by a downward trend in 2008, 2009 (largely due to GDP declines in the financial crisis). In 2019, they registered a slight increase from 4.6% to 4.7%. Given the fact that the EU aims to reduce disparities between its regions (Șerbănică et al, 2016), the issue of educating children and young people is a priority on the EU's agenda in the next multiannual framework (2021-2027).

Increasing the number of young people moving towards high education, as well as improving the quality of education, are important for sustainable and inclusive growth.

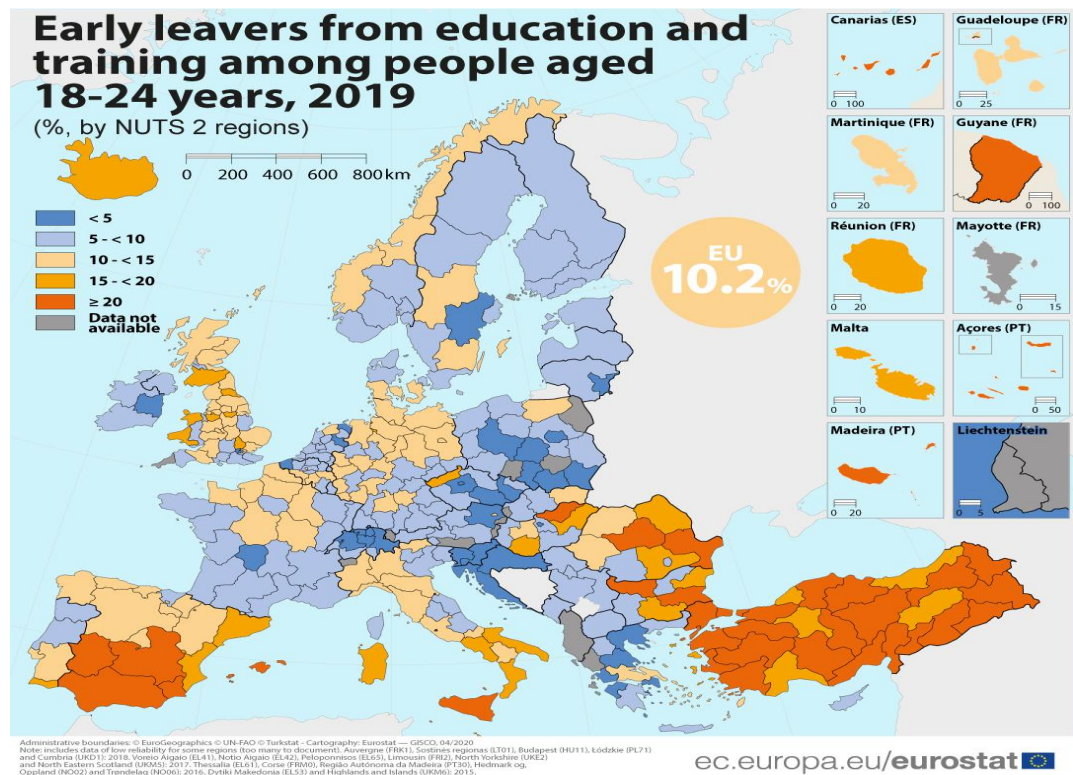


Figure no. 3

Source: <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/DDN-20201007-1>
[accessed 9 March 2021]

This promotes increased productivity, innovation and competitiveness. Given the rapid pace of technological progress and the intensification of global competition, adapting to the globalized labor market requires increasing skills. By contrast, persistent inequalities and geographical disparities lead to a differentiated development between EU regions (see Figure 3 – NUTS2 are regions with 800.000 – 3 million inhabitants, which form the basis

for the implementation of European regional policies). That is why the EU aims to increase the percentage of young graduates.

In 2019, at EU level, the share of young people aged between 18 and 24, who left education and training early, stood at 10.2%. In other words, one in ten young people between the ages of 18 and 24 was not engaged in any further education and training.

The EU's goal is to reduce early school leaving rates in the EU to below 10%. In 2019, this share was below 10% in a large majority of regions. Among the EU regions, the lowest share of early school leaving (1.7%) was recorded in the coastal region of Jadranska Hrvatska (Croatia).

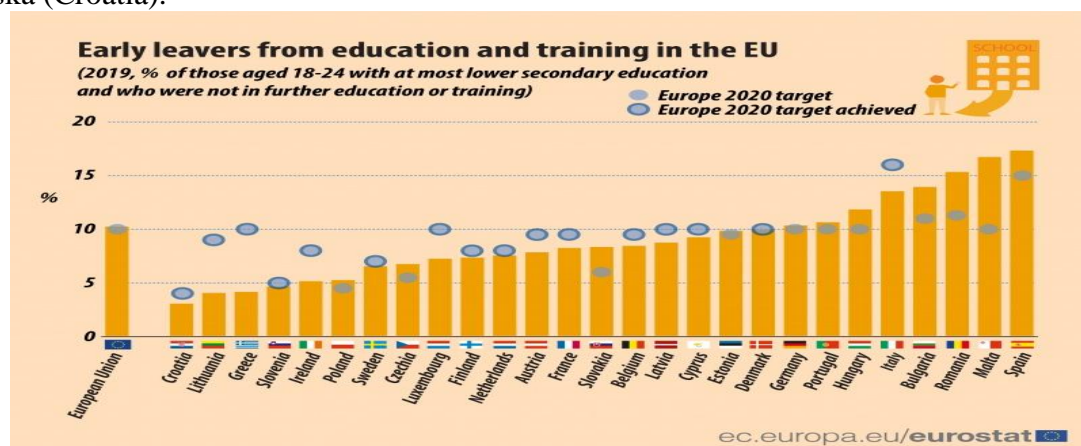


Figure no. 4

Source: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Early_leavers_2019-01.jpg [accessed 9 March 2021]

The largest regional share of early school dropouts is often concentrated in the island and / or peripheral regions of the EU, where a large proportion of young people are likely to want to leave home and intend to take a course. or tertiary education program, eventually leading to school dropout, according to EUROSTAT data. The share of early school leaving and education was also relatively high in most of Bulgaria and Romania.

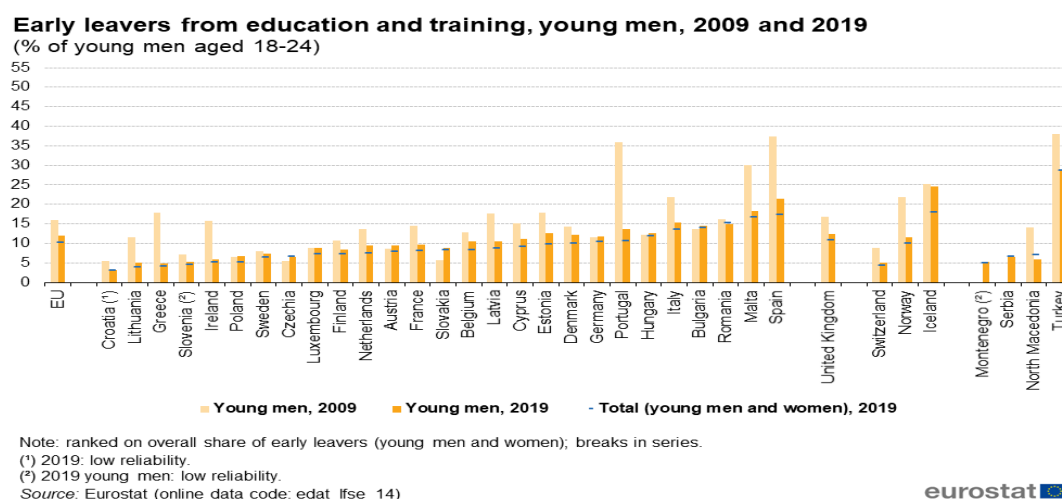


Figure no. 5

Source: https://ec.europa.eu/eurostat/statistics-explained/images/3/3e/Early_leavers_from_education_and_training%2C_young_men%2C_2009_and_2019_%28%25_of_young_men_aged_18-24%29.png [accessed 9 March 2021]

The proportion of early school leaving in 2019 in the EU was with 3.5 percent higher for young men (11.9%) than for young women (8.4%).

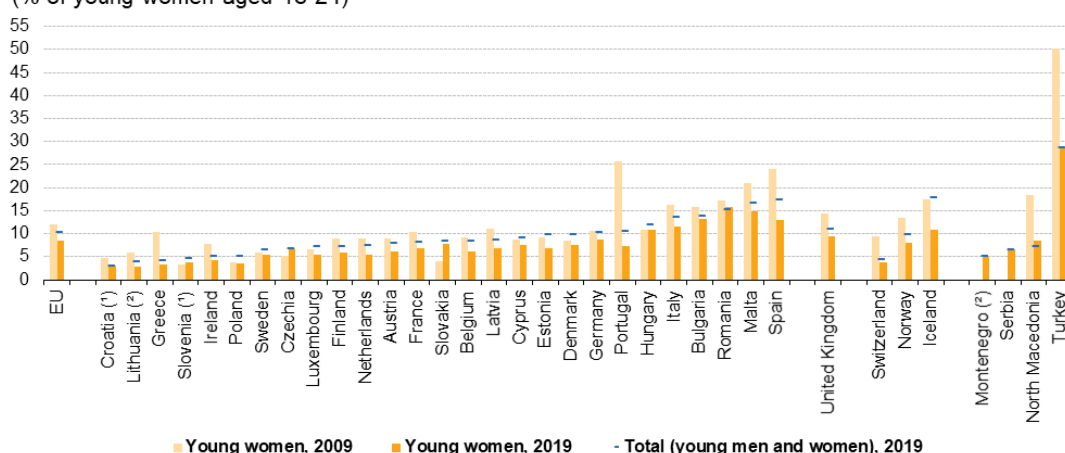
In 2019, 11.9% of young men and 8.4% of young women in the EU left education and training early.

The proportion of early school leaving in the EU in 2019 ranged from 3.0% in Croatia to 17.3% in Spain. In Romania, the dropout rate for young people aged 18-24 was, in 2019, over 15%.

There were two exceptions between member states, as the proportion of early leaving was lower for young men than for young women in Romania (0.9% difference) and the Czech Republic (0.2%).

Early leavers from education and training, young women, 2009 and 2019

(% of young women aged 18-24)



Note: ranked on overall share of early leavers (young men and women); breaks in series.

(*) low reliability.

(*) 2019 young women: low reliability.

Source: Eurostat (online data code: edat_lfse_14)

eurostat

Figure no. 6

Source: [https://ec.europa.eu/eurostat/statistics-explained/images/f/f6/Early leavers from education and training%2C young women%2C 2009 and 2019 %28%25 of young women aged 18-24%29.png](https://ec.europa.eu/eurostat/statistics-explained/images/f/f6/Early_leavers_from_education_and_training%2C_young_women%2C_2009_and_2019_%28%25_of_young_women_aged_18-24%29.png)
[accessed 9 March 2021]

Four EU Member States - Slovakia, the Czech Republic, Slovenia and Hungary - reported a higher proportion of young women leaving the education system earlier in 2019 than in 2009.

Early abandonment of education systems causes difficulties in the labor market. That is why, at EU level, cohesion policy aims to ensure that young people under the age of 25 "NEET" who do not have a job, are registered as jobseekers and do not find themselves in any education system to receive financial support for entering the labor market.

According to EU data, in 2019, the lowest proportion of early school leaving was reported in cities (9.1%); this quota is in line with the benchmark set in the strategic framework for European cooperation in vocational education and training. In Bulgaria, Denmark, Greece, Spain, Croatia, Italy, Hungary, the Netherlands, Romania and Sweden, the highest proportion of early abandonment was reported in rural areas.

Germany has the lowest proportion of early abandonment in rural areas. France has the lowest share in both urban and rural areas.

3. Conclusions

Education has and will be one of the most important areas of society. That is why the states of the world make efforts to invest in the most efficient education systems possible, systems that contribute to the formation of human capital, the most important resource needed in a globalized economy. Dropping out of school can have extremely long-term effects on the labor market and society. Young people, including those in Romania, leave school early for various reasons, personal, school, family and social. European governments must find solutions to reduce school dropout, in the context of transforming sustainable development into a priority strategy of the 21st century, because we want to ensure good conditions on this planet for future generations.

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ANALYSIS OF THE INFLUENCING FACTORS REGARDING THE IMPROVEMENT OF THE INTERNAL MANAGERIAL CONTROL AND OF THE INTERNAL AUDIT AT THE ENTITIES OF PUBLIC INTEREST

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Abstract: *Implementation and development of the relationship internal managerial control - internal audit is not only a legislative issue, but rather a problem of changing the mentality that aims over time and change the organizational culture. For these reasons, the implementation and development of the internal managerial control system in correlation with the internal audit has produced and will produce a series of fundamental changes in the organization and functioning of public interest entities, which contribute to: increasing managerial responsibilities; understanding the philosophy of risk management; inherent risk management and awareness of the introduction of specific internal management control techniques and tools.*

Keywords: *Internal managerial control, internal audit, public interest entity, risk management.*

JEL Classification: *M42.*

1. Introduction

The internal audit function is especially useful for the management of the entity, offering it assistance and counselling for decision making, based on the experience and knowledge gained during the verifications and evaluation of the activities subject to audit. At the same time, through the opinions, conclusions and recommendations given to the management, the internal audit contributes to the adoption and improvement of their decisions. We also believe that better communication between management and internal audit can lead to an increase in the efficiency of the decisions taken.

Public internal audit should not be confused with the internal control function of which it is a part, it is not a more “sophisticated” form of strengthening control as it is often misunderstood, but a managerial counselling function.

In our opinion, the concept of audit- counselling should be used as often as possible to eliminate confusion with the notion of audit-control, even if the two notions are not incompatible. The audit, by examining the efficiency and effectiveness of the entity’s actions, adds value to the control and a rigorous control facilitates the auditor’s work. This added value brought in the decision-making processes that take place in public entities, managers substantiate their decisions, based on the information they have and after consulting with internal and external specialists who master the field of activity specific to the entity. Specialists must include internal auditors who have in-depth knowledge of all activities within the entity, as by the nature of their function, using specific techniques and methods, they examine and evaluate both the adequacy and effectiveness of the internal control system and the quality of the activities carried out in the entity, thus enriching its knowledge and experience in the field. At the same time, auditors assess (Macarie, 2008) the degree of risk that may affect the achievement of objectives if certain decisions are made and determine the level of risk that the entity is prepared to accept.

2. Literature review

Until the consolidation and regulation of audit and internal control functions, respectively, in most European countries, the main research in the field focused on: Strain M.M. (1946) - audit questions from professional examinations, comments on selected cases and topics; Field W.H. & Cashin J.A. (1947) - Internal control standards and audit

procedures; Cashin J.A. & Owens G.C. & Byrnes W.T. (1963) - Audit, Brasseaux J.H. & Miles F.L. (1972) – Auditor's Report: Cases and Illustrations; Marwick P. & Mitchell & CO (1976) - Research Opportunities in Auditing. Also noteworthy are the research of specialists Arens A., Loebbecke K. (2003) or Littleton A. (1961) who develop an integrated approach to auditing.

Staciokas R. & Rupsys R. (2005) conducts a dynamic analysis of the evolution of internal audit responsibilities and states that, "internal auditors provide counselling and recommendations for general management, take part in risk management processes and provide recommendations for improving these processes".

From a management perspective, Saam J. (2007), considers that internal audit "supports the management of the entity in fulfilling its obligations and strengthens the trust of the entity's owners in the integrity of management", and J. Renard (2006) considers that internal audit is all that should be to make a person in charge to make sure that he has a good control over the business if he had time or if he knew how to proceed".

Following the signing of the European Accession Agreements in 1993 and the submission of the application for accession to the European Union in 1995, Romania received recommendations regarding the organization of the audit and internal control activity.

Regarding the **public internal audit**, at the recommendations of the European Commission was introduced, in the control and audit system in Romania, the internal control and implicitly the internal audit, through O.U.G. no. 119/1999 on internal public audit and preventive financial control.

Currently, the internal public audit is regulated by Law no. 672/2002 regarding the internal public audit, explained by its application norms issued in 2003, which regulates the activity within the public institutions, with extension to the other organizations whose owner is the state. It should be noted that the introduction of public audit activity in our country is not an imperative imposed by the *acquis communautaire*, a takeover or an adaptation, thus leaving a fertile ground for finding solutions adapted to the specifics and particularities of the national economy. To the regulations mentioned above is added the adoption of the Internal Control Code by O.M.F.P. no. 946/2005, including the standards of management and internal control at public institutions and for the development of managerial control systems, elaborated according to the model of the Integrated Code of Risk Management (COSO-ERM model) from 2004.

3. Research methodology

This research is a process of choosing from a population a group whose opinions we wanted to know. Thus, each part of the study has an equal probability of being selected. In this study, the population consists of internal and external auditors from some public entities analysed in Bucharest.

The questionnaire was sent to 82 internal and external auditors, only 50 questionnaires were returned with complete data, obtaining a response rate of 60.97%.

The questionnaire was conducted for a study, including 2 types of questions relevant to the empirical case, respectively:

- a) *General questions, with the role of providing a clear picture of the personal profile of the respondents in the sample;*
- b) *Questions regarding the opinion and perception regarding the opinion and perception of the respondents regarding the way of improving the internal managerial control and the internal audit).*

The data collected from the 50 participants in the questionnaire were included in a database created within the SPSS program variant 22.

In order to highlight the processed information, the functionalities of statistical data analysis were used, by approaching several types of analyses, as follows:

- Univariate analyses: frequencies, distributions;
- Bivariate analyses: Pearson Correlation, ANOVA;
- Significance tests: T test for independent samples.

The instrument reliability of this study was tested using Cronbach's Alpha. According to the authors (Kaiser, 1974, pp.31-32), the instrument is considered acceptable when the value is over 60%.

Table no. 1 shows the level of reliability coefficients of the items processed in the questionnaire that are higher than 70%, which is considered extremely reliable.

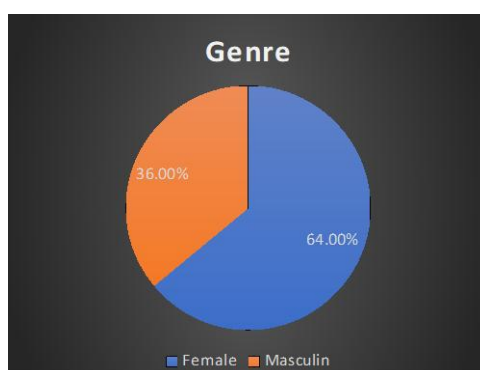
Table no. 1 Reliability coefficients for measuring variables

Number of items	Variables	Cronbach's Alpha
1.	<i>Profession of auditor and the connection with education</i>	0.872
2.	<i>Internal managerial control system (IMCS) organization</i>	0.864
3.	<i>Approaching and applying a IMCS standard</i>	0.823
4.	<i>IMCS evaluation</i>	0.759
5.	<i>IMCS implementation</i>	0.831
6.	<i>IMCS development and improvement</i>	0.797

The results of the socio-demographic information are presented in (table no. 2) and, respectively in the graph from (Figure no. 1) as follows:

Table no. 2 Socio-demographic information

Variables	Answer	Frequency	Percent
Genre	Female	32	64%
	Male	18	36%
		N	Average
Average age and status	Internal auditor	28	34.27
	External auditor	22	26.8



Average age and status

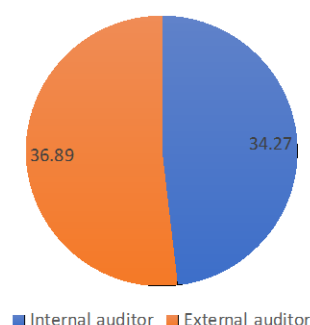


Figure no. 1 Results of socio-demographic information

Source: Own projection

4. Perceptions on the means of improving the internal managerial control system (IMCS)

The study used a dependent variable, which is represented by the improvement of the internal managerial control system and 4 independent variables reflected in the prism of the topics of perception debated, the country approached being Romania.

The integral regression model for the empirical investigations in estimating the factors that could explain the means of improvement of the managerial internal control system through the prism of the auditor profession, is presented as follows:

$$IMCS_i = \alpha_0 + \alpha_1 Fi + \alpha_2 Ri + \alpha_3 PR_i + \alpha_4 DIF_i$$

The regression model highlights the relationship between a dependent variable (Improving the internal managerial control system - IMCS_i) and four independent variables, respectively:

1. Fulfilment of functions and duties in an economical and efficient way - Fi;
2. Compliance with legal regulations and management provisions- Ri;
3. Protection of resources against abuse, loss or fraud - PR_i;
4. Development, maintenance and provision of accurate and complete financial information DIF_i.

The standard deviations of three of the topics addressed were less than 3, namely: the perception of the fulfilment of functions and duties in an economical and efficient way, the perception of Compliance with legal regulations and management provisions and the perception of the Development, maintenance and provision of accurate and complete financial information.

The results in (table no.3) show that the perceptions regarding the Improvement of the internal managerial control system are not, on average, similar.

The calculation of the indicators of the central tendencies, the average and the standard deviation of the variables involved in the model is presented in the same table, where the general statistics of the regression equation are highlighted.

Table no. 3. General statistics of the regression equation

	N	Average	Standard deviation
Perceptions of performing functions and duties in an economical, efficient and effective way	50	1.5500	0.7491
Perceptions of compliance with legal regulations and management provisions	50	2.3650	0.9787
Perceptions of protecting resources against abuse, loss or fraud	50	3.9000	1.4813
Perceptions of developing, maintaining and providing accurate and complete financial information	50	3.2300	0.8082

Table no. 4 presents the results of the Pearson correlation analysis regarding the variables, by testing the hypotheses and interpreting the Pearson correlation results.

Table no. 4. Results of Pearson correlation analysis

		IMCS	F	R	PR	DIF
IMCS	Correlation Statistical significance (second extremity) N	1 50				
F	Correlation Statistical significance (second extremity) N	1.130 0.079 50	1 50			
R	Correlation Statistical significance (second extremity) N	-0.017 0.000 50	0.043 0.001 50	1 50		
PR	Correlation Statistical significance (second extremity) N	0.147 0.000 50	0.169 0.001 50	0.106 0.001 50	1 50	
DIF	Correlation Statistical significance (second extremity) N	0.297 0.000 50	0.359 0.001 50	0.217 0.001 50	0.056 0.000 50	1 50

It is observed that out of the total of 4 explanatory variables tested in this study, there is a significant correlation between 3 independent variables Fulfilment of functions and duties in an economical and efficient way (F), Protection of resources against abuse, loss or fraud (PR) and Development, maintenance and provision of accurate and complete financial information (DIF) and the dependent variable, for example, Improvement of the internal management control system. The correlation between Compliance with legal regulations and management provisions and Improvement of the internal management control system (IMCS) has a very weak value. Based on the results in the table, there is a positive relationship between the dependent variable (IMCS) and most independent variables.

In the analysis of the factors that could influence the improvement of the internal managerial control system, a regression analysis was used to test the effect of the 4 independent (explanatory) variables on the dependent variable (explained).

Table no. 5. Regression analysis

Model	Sum squared	Df	Average deviation	F	Sig.
Regression	4.582	4	0.936	0.499	0.801 ^a
Residual statistics	51.506	43	1.867	-	-
Total	57.100	47	-	-	-

a) Elements: (Constant variable), F, R, PR, DIF

Table no. 6 contains information on the dependent variable explained by the existing model used in this study and the residual one that indicates the oscillation of the dependent variable that is not included in the model.

In order to ensure the statistical adequacy of the model, the conformity can be measured by the sum of the correlation coefficients called R^2 .

Table no. 6. Conformity based on correlation coefficients

Model	R	R^2	adjusted R^2	Estimated errors
1	0.285 ^a	0.082	-0.082	1.361

➤ Elements: (Constant variable), F, R, PR, DIF

As presented in Table no. 6, both R^2 and adjusted R^2 , measure the conformity of the model, for example, the proportion of the oscillation of the dependent variable explained by this model.

Since the adjusted R^2 represents the modification of the limitation of R^2 , the value of the adjusted R^2 is meant to measure the conformity of the model. Thus, according to the table, the value of adjusted R is 0.082, indicating that the independent variables in the model explain an 82% oscillation of the dependent variables. In this case, it can be deduced that the study model provides good data compliance. This result practically indicates that the independent variables in this research are the major factors in improving the internal managerial control system.

Table no. 7. Correlation between the explanatory variables and the IMCS dependent one

Variables	Coefficients	Statistical term t	Probability
Constant variable	2.216	1.968	4.542
Fulfilment of functions and duties in an economical and efficient and effective way	-0.217	-0.672	0.425
Compliance with legal regulations and management provisions	0.058	0.248	0.555
Protection of resources against abuse, loss or fraud	-0.186	-1.151	0.139
Development, maintenance and provision of accurate and complete financial information	-0.045	-0.169	0.539

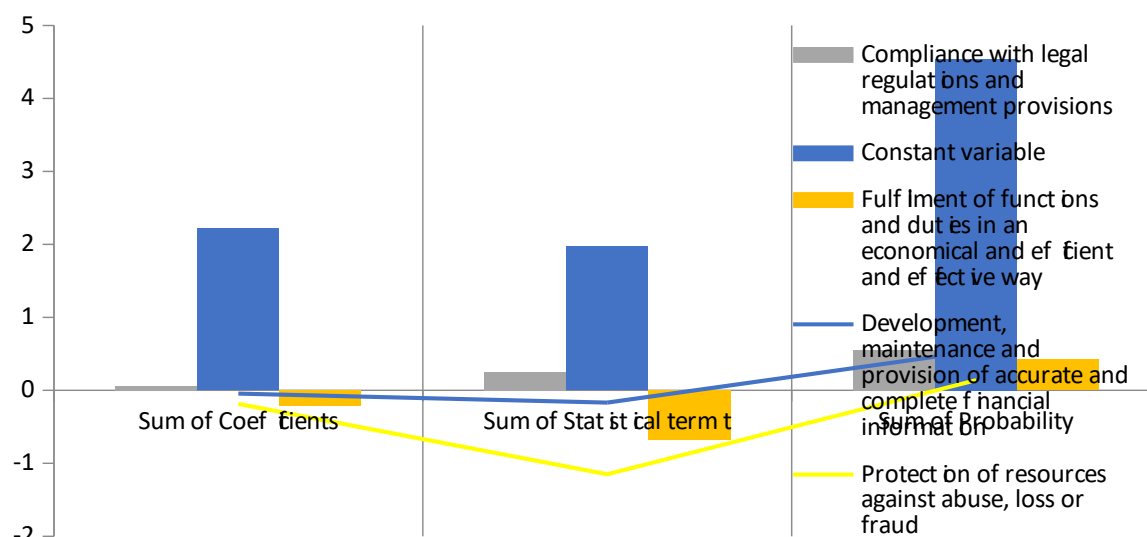


Figure no. 2

Source: Own projection

As underlined in the table and figure above, the results of the 4 explanatory variables tested in this study confirm that there is an insignificant relationship between them and the analysed dependent variable (IMCS).

Taking into account the highlighted values, the multiple regression line is represented by the following regression equation:

$$IMCS = 2.216 - 0.217 * F + 0.058 * R - 0.186 * PR - 0.045 * DIF$$

5. Analysis of the reliability coefficients of the measured variables analysed

Factor analysis is a technique that is used to reduce variables to factors with a small number. Before using the factor analysis, the hypotheses of normality, homoscedasticity and linearity were verified.

In this regard, the Kaiser Meyer Olkin (KMO) model was used to measure the adequacy of the sampling, also the Bartlett globosity test was used to test the inter-correlation between the factors.

Table no. 7 illustrates the KMO guide for interpreting factor analysis values.

Table no. 7. KMO Guide

KMO	Opportunity for factor analysis
0.90 - 1.00	Wonderful
0.80 - 0.89	Satisfactory
0.70 to 0.79	Medium
0.60 to 0.69	Mediocre
0.50 to 0.59	Ungrateful
Less than 0.50	Needs to be excluded

The reliability was tested again after factor analysis to ensure the reliability of the instrument.

Cronbach's Alpha is considered an appropriate test of the reliability of the survey instrument.

Table no. 8 shows that Cronbach's Alpha ranges from 70.6 to 86.1%, which exceeds the minimum value of 70% to be acceptable. This means that the instruments used to measure the variable were acceptable and the data were subsequently used for further analysis.

Table no. 8. Reliability of the survey instrument

Number of items	Variables	Cronbach's Alpha
1.	<i>Profession of auditor and the connection with education</i>	0.790
2.	<i>IMCS organization</i>	0.861
3.	<i>Approaching and applying a IMCS standard</i>	0.848
4.	<i>IMCS evaluation</i>	0.851
5.	<i>IMCS implementation</i>	0.706
6.	<i>IMCS development and improvement</i>	0.790

The present study relies on tolerance (TOL) and variance inflation factor (VAR) to test collinearity. TOL values should be above 10% and VAR should be less than 10%. (Table no. 9) indicates that there is no multi-collinearity between the variables, because the values of the inflation factor of the VAR variance were between 1,428 and 1,975, and the TOL tolerance values were between 50.1% to 69.7% percent.

Table no. 9 Tolerance and variance values

Variables	TOL	VAR
<i>Profession of auditor and the connection with education</i>	0.643	1.541
<i>IMCS organization</i>	0.501	1.975
<i>Approaching and applying a IMCS standard</i>	0.697	1.428
<i>IMCS evaluation</i>	0.595	1.673
<i>IMCS implementation</i>	0.529	1.880
<i>IMCS development and improvement</i>	0.536	1.789

For the analysis of linearity, normality and homoscedasticity, the Skewness and Kurtosis tests were performed before testing the hypotheses.

Table no. 10. Skewness and Kurtosis Tests

Variables	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
<i>Profession of auditor and the connection with education</i>	-.541	.203	-.215	.302
<i>IMCS organization</i>	-.436	.203	.453	.302
<i>Approaching and applying a IMCS standard</i>	-.697	.203	.402	.302
<i>IMCS evaluation</i>	-.782	.203	.226	.302
<i>IMCS implementation</i>	-.326	.203	-.198	.302
<i>IMCS development and improvement</i>	.526	.203	-.205	.302

The results show that the Skewness and Kurtosis ratios are between ± 1.94 and 2.56, respectively, indicating that the data are normally distributed.

Table no. 11 shows that, in general, auditors have a moderate and favourable perception of the improvement of the internal managerial control system.

Table no. 11 Auditors' perception of IMCS improvement

Variables	Number of items	Average	Standard deviation
Profession of auditor and the connection with education	4	3.453	.64543
IMCS organization	7	3.953	.62171
Approaching and applying a IMCS standard	7	3.653	.60151
IMCS evaluation	8	3.899	.62123
IMCS implementation	10	3.903	.67532
IMCS development and improvement	10	3.925	.69061

This section presents the conclusions of the relationship between the dependent variable (Improving the internal management control system) and the independent variables (*Profession of auditor and the connection with education, IMCS organization, Approach and application of IMCS standard, IMCS evaluation, IMCS implementation, IMCS development and improvement*). In this regard, the study used multiple regression.

The regression result shows that the value of R^2 is 49.7% and the value of F is 12,534. (Table no. 12) presents these results.

Table no. 12. Multiple regression results

Variables	Non-standardized coefficients		Standardized	t-value	Sig.
		Std. Error	B		
Constant	2.123	.036		4.261	.002
Profession of auditor and the connection with education	.617	.096	.479	2.223	.000
IMCS organization	.613	.103	.391	2.679	.006
Approaching and applying a IMCS standard	.437	.112	.302	3.162	.000
IMCS evaluation	.395	.101	.199	4.415	.003
IMCS implementation	.326	.015	.496	5.302	.000
IMCS development and improvement	.529	.010	.463	5.313	.000

*F= 12.534 $R^2 = .497$ Sig. = 0.05

The study shows the relationship between internal and external audit, as well as the improvement of the internal management control system using a questionnaire survey among auditors.

Interestingly, the extracted results showed that the participants perceived favourably the link between internal control and internal audit in relation to external audit in order to increase the quality of the managerial internal control system.

7. Conclusions

Currently, implementing rules are established for all CIM standards and specific activities are being carried out to maintain and develop these standards, but, as in any field, there is the possibility of improvement. At the level of public interest entities, it is important to maintain and develop a coherent system of internal managerial control, taking into account the minimum requirements of internal managerial control standards.

Particular importance must be given to *Standard no. 8 - Risk management*, which is a key element of the internal management control system. Risk management involves a series of complex activities, because the risks are found in various fields and categories: security, war scenarios, financial, environment, IT, reputation, occupational health, etc.

The main aspects to be taken into account in the future by public interest entities, in terms of internal managerial control, according to the legislation, would be: creating an organizational framework conducive to the implementation and development of the internal managerial control system, establishing a clear flow of information and coherently, a good risk management, useful procedures, updated and adequate to the structures and activities of the entity.

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SUPPORT MEASURES FOR CHILDREN IN DIFFICULTY DURING COVID-19 PANDEMIC

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Abstract: COVID-19 infection has spread around the world, and the restrictions put in place to curb its impact on the population have particularly affected certain groups of the population, one of whom is vulnerable children. To reduce the socio-economic impact of the consequences of the pandemic on this population group, state authorities, NGOs and international organizations have come up with a series of financial support measures, in-kind or other type of support. In this article, we aim to identify the support measures implemented or in process of being implemented in several countries of the world by such entities, including programs of such international entities as the UNICEF, EU and others.

Keywords: COVID-19, children in difficulty, financial support, in-kind support, measures.

JEL Classification: I31, J13, M14.

This paper has been elaborated and funded in the framework of the Scientific Project for the period 2020-2023, registered in the State Register of projects in the field of science and innovation of the Republic of Moldova with the code 20.80009.0807.29 Proiect Program de Stat "Perfecționarea mecanismelor de aplicare a instrumentelor inovatoare orientate spre creșterea durabilă a bunăstării populației Republicii Moldova" / Project State Program "Improving the mechanisms for applying innovative instruments aimed at sustainably increasing the welfare of the population of the Republic of Moldova".

1. Introduction

In December 2019, the SARS-CoV-2 coronavirus was identified in the Chinese city of Wuhan, the infection with which it spread to all countries of the world. In March 2020 the WHO declared a state of pandemic. To reduce its spread, states have put in place restrictive measures that have negatively affected the population, mostly vulnerable groups, especially children.

According to World Bank estimates, due to the COVID-19 pandemic in 2020, up to 115 million people would reach extreme poverty, in addition to the closure of schools affecting hundreds of millions of children. Increasing economic uncertainty, threats of violence, the risk of child labour, of child marriage, of child trafficking, and school closures and reduced access to distance education (only about 2/3 of children globally) have led to many negative effects on children. To help reduce the negative effects of the pandemic and to ensure the health, education and safety of children and families, several international organizations have provided financial support, in kind or otherwise, to this vulnerable group of the population.

2. Support measures for children in difficulty

ChildFund, an international child development organization that specializes in children's charity, providing assistance to children in difficulty in more than 70 countries, has targeted nearly 80 million USD in 2020 to more than 5.6 million children in more than 60 countries, from these, 44 million USD dollars represent new funds, and 35 million USD - funds reoriented mainly for the COVID-19 pandemic crisis, following 4 basic directions (ChildFund, 2020):

- 1) stopping COVID-19 from infecting children and families;

- 2) obtaining the necessary food by children;
- 3) keeping children safe from violence, both physical and emotional;
- 4) supporting children to continue their studies.

To this end, ChildFund has set up community handwashing stands; educated communities of people about the symptoms of COVID-19, the necessary hygiene measures and the locations for testing and treatment. The organization also distributed such essential products as soap, gloves, masks and created child-friendly spaces with age-appropriate toys and reading materials for children who are being treated with COVID-19 or who are subject to quarantine measures. At the same time, ChildFund provided cash for food and other basic necessities to the most vulnerable families (those who lost their income due to COVID-19, households run by children or the elderly and/or households affected by disabilities or chronic illnesses) or provided directly food and household items, the possibility of paying rent and other basic needs. The organization provided virtual psychological assistance and counseling and supported temporary shelters for children living on the streets, providing hygiene materials, food and other basic items. It has also provided safe and adequate care for children who are separated from their caregivers due to treatment or preventative measures. It also supported children's learning through online or radio tutoring activities and sessions. For students in places where internet access was not available or unstable, home learning kits with materials and guidelines for their use were distributed. The urgency of this support is argued by the collateral damage of the pandemic with long-term effects on children that need at least mitigated, if not resolved.

A way of support for children and their families during COVID-19 crisis is the creation of response platforms. By the direction of support these platforms can be divided into these 12 types (Devercelli & Humphry, 2020): 1) Health platforms; 2) Nutrition platforms; 3) Childcare and psychosocial support for frontline workers; 4) Distributing books and learning and play materials to parents; 5) School re-opening and re-enrollment campaigns; 6) Cash transfer programs and social safety nets and agriculture extension programs; 7) Distance education platforms; 8) Radio and Interactive Audio Instruction; 9) Social Media; 10) Television; 11) Mobile phones; 12) National communication campaigns.

An example of health platform is the Mexico online platform for COVID-19 information sharing. It provides continuity in basic health care by prioritizing the delivery of preventive care (such as for immunization) and nutrition services for young children. Through this platform, health counseling services for pregnant women, new mothers and their families, as well as for breastfeeding, for cases of domestic violence, for care during the COVID-19 pandemic can be obtained. The platform provides information for front-line workers to identify the child with protection and mental health issues, as well as information for parents on coping and stress management strategies, on learning at home, on recognizing signs of illness, promoting hygiene and ensuring child safety.

A kind of nutrition texting platform is present in Ecuador, which aims to help children and their parents meet the challenge of food insecurity by prioritizing food security through the emergency delivery of food, including micronutrients and food supplements for pregnant women and young children, as well as through an improved prognosis of critical nutrition reserves. The Ecuadorian platform also aims to adapt school nutrition programs to deliver food directly to communities or households. Like the Mexican one, it provides parents with information about nutrition, coping and hygiene strategies, ideas for learning and play, and ways to recognize signs of illness in children.

An example of a platform for childcare support and psychosocial support for front-line workers is provided by mobile nurseries in Burkina Faso. The closure of schools and childcare centers has increased the risk of losing childcare options for front-line workers such as health professionals, food producers, sellers and traders. To this end, the burkinese

platform provides medical assistance to reduce COVID-19 exposure, psychosocial support for front-line workers to cope with stress and fatigue, the organization of emergency childcare or childcare supported by the employer and/or the provision of child support, childcare and tax credits for working parents.

A platform for early literacy of children who employ parents has been implemented in Kenya. It aims to distribute books and materials for learning and play for children to parents, also uses TV shows, radio, applications, information or specific campaigns for certain groups or individuals. The distribution of materials is also done through cash transfer programs, food distribution or other resources for the community, with accompanying materials for parents.

The humanitarian organization for children Save the Children has developed preschool guidelines for health and nutrition and initiated reopening and re-enrollment campaigns in schools, developed accelerated learning programs to promote school readiness, promoted the introduction of hygiene practices in schools.

In Madagascar, cash transfer programs for raising children, social safety nets and agricultural expansion programs have been implemented. As household incomes can alleviate the loss of livelihoods, expanding coverage and/or increasing cash transfers is a critical way to reach young children and families with vital income support and can be used as a platform for other interventions.

An example of the creation of an online education platform is provided by Costa Rica, which also includes preschool programming, the use of assistance and learning materials for parents and children delivered through video, radio, social media, applications, USB sticks in areas with reduced connectivity. The pandemic crisis offers the possibility to expand access to early education at low cost in the case of integrating the distance education platform into basic education.

Another child support measure for the COVID-19 period, which is being implemented in the Democratic Republic of Congo, is interactive radio entertainment and learning programs, which is a good alternative if internet connectivity is low.

In the United Arab Emirates, resources are provided on parenting on Social Media (Instagram, Facebook, WhatsApp). The advantage of this information transmission environment is the high penetration rate in low- and middle-income states. Social media support networks for parents are created at low cost or free of charge.

Due to low Internet connectivity and a high rate of television penetration in some countries, Sesame Street and Akili and Me provided entertainment and children's education programs on TV and radio, including information in these media for parents about parenting, hygiene, education and early development and coping mechanisms.

In Colombia and Nicaragua, texting on mobile phones is used to share key messages about parenting, nutrition, health, early stimulation and strategies to reduce the rate of infection, and call centers to support parents in educating children. Free support hotlines are also used for women and children facing domestic violence.

Through national communication campaigns in Kenya, toolkits with information for children were provided to parents about WASH (Water, Sanitation, and Hygiene), nutrition, health, protection and early development of the child.

In the USA in 2020 the Global Child Thrive Act was adopted, which has the aim of integrating early childhood development into USA foreign assistance that will support the growth and development of 250 million children under the age of 5 in low-income and middle-income countries who currently have the risk of not reaching their full potential because of extreme poverty and stunting (Congress, 2021). The act also aims to strengthen coordination with local governments and organizations, non-governmental organizations, including religious and other civil societies, to integrate best practices and to identify

evidence-based priorities, indicators, outcomes and targets to support inclusive early childhood, but also to develop and support pilot projects in partner countries in order to expand them to serve more children and their families.

In order to inform how the business can support children and families in difficulty during COVID-19 pandemic, UNICEF has developed an action guide (UNICEF, 2020). UNICEF suggests that companies contribute financially to provide access to education, child protection and psychosocial services for basic medical and hygiene products, to contribute with personal protective equipment and transport services, with in-kind pro bono services to support health, water, sanitation and hygiene, education and child protection programs, to offer support to advocacy efforts for: keeping children healthy; promoting hand washing and reaching vulnerable children with water, sanitation and hygiene; keeping children learning; supporting families to cover their needs and care for their children; protecting children from violence, exploitation and abuse; protecting refugee and migrant children and those affected by conflict.

Several EU countries have implemented support measures for children and families in 2020 to support them during the pandemic (European Commission, 2020). Austria has launched a digital educational streaming platform (Edutube), which contains 800 stores of articles and documentaries and other digital resources. It also supplemented with 30 million Euros the family hardship fund (Familienhärtefonds) for those who are unemployed or forced to work part-time, especially for single parents. Belgium has set up temporary accommodation centers for children at risk of violence or danger due to COVID-19 or lockdown. Denmark has allocated about 215 million Danish Kroner (or about 29 million Euros) to support vulnerable children. This support is aimed at children who live with people addicted to alcohol or drugs or have some illness, such as mental illness, but also in the form of grants to NGOs that aim to support vulnerable children through counseling. Estonia has introduced an allowance of up to 70% of the average parent's income for parents whose children have disabilities and need to stay home with them for education and care during the COVID-19 crisis. 10 million Euros have been allocated for the implementation of this measure. Estonia has increased support for foster families and children with rare diseases. The allowance for children with rare diseases will be as high as that for children with disabilities. Foster families will receive at least half of the national minimum wage per child fostered (at least 240 Euros per month). In Finland, a number of foundations have set up a campaign to support families with low-income with children who have suffered from school closures. The support involves food packages of about 90 Euros for a family for a week. In France, 500000 Euros have been allocated for the support of parents working remotely and improving access to hotlines and other types of online support for families, such as leisure and education activities. In order to support low-income families, the French state has offered a lump sum of 150 Euros and if the household has children under 20 years old - an additional lump sum of 100 Euros per dependent child to about 4.1 million households, including 5 million children. Greece has provided free mobile internet access to the Ministry of Education's digital educational platforms, televised educational programs. In Ireland, online resources have been provided to support parents with children for online education and digital resources for children to play at home. In Luxembourg, paid family support leave has been approved for self-employed persons in the private sector to care for elderly or disabled members. States such as Croatia, Slovakia have launched information campaigns for the prevention of domestic violence, France has increased the number of workers for hotlines and implemented alert systems in pharmacies, and Germany has allocated 225000 Euros for national hotlines for children and added to the services those provided by the digital advisory service Sofahopper, which provides support to children which are at risk of homelessness and

online advice from social workers and more opportunities for young people to get online and telephone advice. The UK has come up with support of over 12 million British pounds (about 13.6 million Euros) in support projects for children and families at risk of violence or domestic exploitation, who are in care or need mental health support. The Eurochild network of organizations has launched a project with a child-centered approach offering materials to combat discrimination against Roma children in schools.

3. Conclusions

COVID-19 pandemic had negatively affected vulnerable people and especially children around the world. To solve or at least attenuate the pandemic consequences and subsequent restrictive measures on such groups of population not only in the short term, but especially in the long term, various countries, NGOs, international organizations and other entities have put in place measures of support for vulnerable children and their families. The majority of the measures concern nutrition, health care, education, information and other basic goods or services. Lower-income countries adopted information campaigns about protection measures against COVID-19, opportunities of education and development of children, about how to get basic necessities and services. Radio, TV, internet (where connectivity is better) were used for this purpose. Higher-income countries, in addition to information campaigns, also provided various forms of financial support for vulnerable children and families, sometimes increasing the amounts of existing forms of financial support, creating hotlines for counseling and information on pandemics, domestic violence and other problems of this vulnerable group. There is a growing role of the mass media, especially those in digital format, to contribute to the creation of platforms to reach the vulnerable children, aiming at education, health care and, in general, information about various opportunities. Measures that would reduce the digital divide in the population will foster a better inclusion of such children in society and will not only help integrate them into the developing digital world, but also help with opportunities to get the basic needs met and for further development. However, these measures must be taken in parallel with measures to eliminate inadequate nutrition, to foster health care and other measures, such as social protection measures or other types of measures.

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THE ROLE OF INFORMATION QUALITY MANAGED BY PUBLIC INSTITUTIONS IN THE PROCESS OF UNOBSERVED ECONOMY REDUCING

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Abstract: *The economic security of the state is constantly affected by the phenomenon of the unobserved economy. The international community has developed international conventions and standards to combat the unobserved economy and the movement of illicit financial flows. However, insufficient law enforcement, inadequate compliance and high-risk countries can both have detrimental consequences, affecting the effectiveness of the whole prevention framework. The public institutions involved in reducing this phenomenon correlate its decisions with the economic-financial information accumulated, stored and managed in accordance with its statutory purposes. This requires the authorities to assess the role of the quality of information managed in its decision-making process. The purpose of the article is to identify the role of information quality accumulated by public institutions in the process of reducing the unobserved economy in the Republic of Moldova. As a result of the research, some gaps were found in the process of organizing the information management activity and some recommendations were developed.*

Keywords: *information, information system, unobserved economy, illicit financial flow, corruption, public institution.*

JEL Classification: E26.

1. Introduction

The economic reality in the Republic of Moldova is characterized by a constant influence of external and internal economic, financial and political factors. During the 30 years since independence, public and private actors in the Republic of Moldova have learned the lesson of the cyclicity of economic development. Thus, after periods of economic growth, there are declines, which in turn are followed, finally, by economic gains. GDP growth is seen as a positive and long-awaited phenomenon, and the decrease in this indicator increases the size of the unobserved economy in the Republic of Moldova. Economic growth is not very useful if the income generated is captured by an elite, thus not being used to create jobs and opportunities for the population.

The transactions generated by the unobserved economy are a reflection of the process of permanent transformation of the economy under the influence of socio-economic changes in society. In the case of the Republic of Moldova, the value of transactions generated by the unobserved economy is decisive for the negative impact on the economy and society as a whole. At the same time, the high values of these transactions and considerable financial means require the actors involved in the unobserved economy to legalize the illegally obtained capital. More recently, the financial system of the Republic of Moldova, starting from the geographical location and the high level of corruption has been used as a tool to legalize the financial means obtained abroad. It is for these reasons that it is imperative to investigate the phenomenon of illicit financial flows, which, manifesting themselves in fairly large proportions in the Republic of Moldova, affect economic development and society and cause serious damage to the public budget. The link between informality and corruption turns into a vicious circle, illicit activities contribute to the deterioration of the state structure and the official economy, and a weak state, weakened by corruption, facilitates trafficking and money laundering (Corneliu-Sorin Baicu 2017). Thus, the importance of identifying and analyzing information related

to illicit financial flows is evident in the context of a decision-making process of public institutions aimed at reducing the unobserved economy. The state, through its institutions, must act as a whole in order to efficiently accumulate and manage economic, financial and social information.

The purpose of the article is to identify the role of information quality accumulated by public institutions in the process of reducing the unobserved economy in the Republic of Moldova. In order to achieve the proposed goal, the following objectives have been proposed:

- Identification of the management mechanism with the information accumulated and stored by public institutions in the decision-making process.

- Identifying the vulnerabilities and risks that hover over the decision-making process of public institutions from the perspective of accumulating information in the process of reducing the unobserved economy.

- Generating recommendations on improving the process of information accumulation by public institutions in the Republic of Moldova as a result of identifying common elements and differentiating the situations analyzed.

The informational support of the researches constitutes the existing normative framework, as well as the internal regulations, but also official statistical data of some public institutions from the Republic of Moldova. At the same time, the works of some local and foreign researchers were analyzed.

The research methodology was based on the following methods: analysis and synthesis, induction and deduction, graphical and tabular methods, methods inherent in economic disciplines - observation, reasoning, comparison, classification, which allowed a deep analysis of the research topic.

2. Literature review

The role of data is very important in developing efficient and reliable policies, as they provide a solid information base that can be used by decision makers. This involves collecting and interpreting data from different sources and opinions, as well as challenging preconceived ideas and current practices in search of more effective policy solutions (European Commission, 2015). The availability of basic statistical data is fundamental. Policy representatives need to clarify what basic data they need.

The information can be considered a mass consumer good, being used by a lot of users: small and medium enterprises, listed companies, investors, state, etc. Initially, the term information was introduced in the technical field to denote the uncertainty removed by performing an event from a set of possible events. Subsequently, the meaning of the term was extended to knowledge, in general, ie to the appearance of a new element, previously unknown, on the surrounding reality. For this purpose, symbols are used which, by associating them with reality, provide information (Mihalciuc, 2008).

The emergence of the unobserved economy in the Republic of Moldova was inevitable, given the multitude of existing problems. Thus, the highest level was attested in 2000 - of 34.6% of GDP, and the lowest level in 2007 - 20.6% of GDP. In the following period, there was an increase in the level of the unobserved economy, the main cause being the financial crisis of 2008-2009 and the drought of 2009, which caused the share of the unseen economy in GDP to increase by 1.5 percentage points in 2008 and further by 0.3 percentage points in 2009. In the next two years (2010-2011) there was a slow decrease of this indicator, followed by an increase of 2 percentage points in 2012, the increase caused by drought. In 2013, measures to combat tax fraud were implemented, as a result of which there was a decrease of 0.6 percentage points (see table 1) (Ganciuov, Gutium and Ceban, 2014).

The process of estimating the unobserved economy is difficult due to many obstacles, primarily due to the high level of corruption and lobbying for some activities that are generating illicit financial flows. Although the National Bureau of Statistics assesses the unobserved economy through the indicator of the share of the unobserved economy in GDP, the proportions of this phenomenon are not fully known, and the damage to state revenues and the welfare of the population is enormous. Policies to reduce the unobserved economy start, first of all, from an estimate of its value, classification and, finally, its understanding as a phenomenon.

In these conditions, it is imperative that the decisions taken by state institutions in the field of diminishing the unobserved economy be based on analyzes of economic and financial information, which do not involve exaggerated administration costs in relation to the phenomenon of unobserved economy.

Table 1. The share of unobserved economy in Gross Domestic Product in Rep. Moldova

Period	Total % in GDP	Formal sector	Informal sector	Household production
2012	23,7	8	6,5	9,2
2013	23,1	7,5	6,3	9,3
2014	23,2	7,4	6,4	9,5
2015	23,7	9,02	5,8	8,9
2016	22,4	8,3	5,5	8,6
2017	24,5	6,8	6,1	11,5
2018	28	10	6,6	11,3
2019	25,4	7	7,9	10,5

Source: elaborated by authors in base of data offered by the National Bureau of Statistics

The purpose of information for public institutions involved in reducing the unobserved economy is to provide accurate data on economic and financial transactions of individuals and legal entities performed on the territory of the Republic of Moldova, which can be divided as internal, external and transit, cash flows, the financial results recorded for certain periods of time, their indebtedness on the internal and external market, etc.

Thus, the quality of information underlying the decision-making process of public entities involved in reducing the unobserved economy is influenced, like private information, by some characteristics of information. At the forefront is the accuracy of the information, which is influenced by the process of collecting it. The process of gathering information is determined by the source of the information itself, where we can distinguish financial reports of companies prepared according to the rigors of regulations in force, declarations on their own responsibility, documents issued in other states, verbal statements, etc. It is clear that, in general, the level of accuracy of the information provided by a financial report and a verbal statement will be different. The collection process is also directly dependent on the technical solutions applied and the qualification of the employees responsible in the field. In conclusion we can say that the accuracy of information is influenced by the sender (source of information), receiver (the one who accumulates information and technical solutions for storing it) and the communication channel, which includes how to send and receive information. Another characteristic of the information is the completeness, which represents the degree of explicitness regarding a transaction,

subject, etc. An eloquent example would be the value of a bank transaction without knowing the authorizing officer, the recipient, the destination, the date of transfer.

The cost-effectiveness of the information will influence the quality of the information, or the cost of accumulating and managing the information will be acceptable in relation to the expected result.

The need for information at the level of public institutions involved in the process of diminishing the unobserved economy results from the very task of the institutions concerned and the purpose of its use. Thus, in the process of reducing the phenomenon of unobserved economy, the information managed by the State Fiscal Service will be used, which has as basic purpose the accumulation of revenues to the national public budget; The information system of the Customs Service, which is used to record and calculate import / export duties; The information system of the Service for the Prevention and Combating of Money Laundering, whose basic task is to prevent and combat money laundering, terrorist financing and the proliferation of weapons of mass destruction; Automated Information System Register of unavailable (seized) criminal assets, which is a set of information resources and technologies, technical means of program and methodologies, interconnected and intended for recording and processing of unavailable criminal assets, documentation of procedures part of parallel financial investigations and asset management procedures, as well as the automation of specific processes and workflows for the recovery of criminal assets (Government Decision, 2020).

3. Results of own research and discussions

As described above, decisions to reduce the phenomenon of the unobserved economy by identifying illicit financial flows can be taken by public institutions only if they are provided with accurate, complete, relevant, accessible and current information. At the same time, *starting from the huge volume of information generated by the illicit financial flows related to the unobserved economy, there is a need to develop information systems that contribute to the accumulation of information, verification, storage, analysis and generation of conclusions.*

In order to ensure a solid legal basis for this process, to ensure the transparency and standardization of state information resources, the Parliament and the Government of the Republic of Moldova have developed and adopted a series of normative acts to ensure the necessary legal support for this process. By *Government Decision no. 414/2018 on data center consolidation measures in the public sector* and to rationalize the administration of state information systems the public institution *Information Technology and Cyber Security Service* was created, by transforming the State Enterprise "Special Telecommunications Center" and by covering the following areas of competence: information technology infrastructure management and the Telecommunications System of public administration authorities as part of the special communications network, administration and maintenance of state information systems, cyber security, management of the Government's unique public key infrastructure, implementation of information technologies in the public sector (Government Decision no 414/2018).

Also, by Government Decision no. 760/2010 was approved the Statute of the public institution Electronic Government Agency, the main purpose of this public institution being to improve the quality of governance and public services through intensive application of information and communication technologies, while the areas of competence of the Electronic Government Agency being the modernization of government services, e-Government transformation, interoperability, cyber security audit, other areas assigned in the competence of the Agency through normative acts (Government Decision no. 760/2010).

Thus, these two institutions (the Public Institution "Information Technology and Cyber Security Service" and the Public Institution "Electronic Government Agency") are at the forefront of the process of providing quality information to public institutions involved in the process of reducing the unobserved economy.

It should be mentioned that the existence of the regulation of the elaboration and implementation at state level of the information systems has optimized the characteristics of the information administered and analyzed by the public institutions.

At the same time, the relevance of the accumulated information is ensured directly by each institution, which, starting from the specifics of the information needed to be managed, information sources, communication channels, etc., develops its own information systems, being different from one institution to another. Thus, the optimal methods of accumulation and administration of information used by public institutions in the process of combating the unobserved economy involve several essential elements:

- the generated information is to be processed according to unique standards until their accumulation by public institutions, an eloquent case would be the information and reports on economic and financial activity submitted to the State Tax Service;
- the mechanism for accumulating information is to involve fixed, transparent, well-defined and applicable procedures;
- the accumulated information is to be stored within a unique information system, which allows the operational and strategic analysis of the accumulated information;
- the mechanisms for accumulating and administering the relevant information are to be subordinated to the normative acts in force;
- the developed information systems are to ensure a high level of interoperability;
- the effectiveness of the information analysis process is directly related to the capabilities of the information system in which it is processed.

We believe that information management must be a major concern for public institutions, as not only the quantity but also the quality of information is one of the prerequisites for developing correct and effective strategies. Although information management can be viewed in different ways, what is important is that its characteristic actions must be adapted to the specifics of the categories of information. Also, due to the fact that information is an element of heritage assets that become necessary resources for formulating strategies and making decisions, their management involves ensuring their protection.

The decision takes the form of a decision act in situations of low complexity or when the situation is repetitive, the variables involved being very well known by the decision maker so that it is no longer necessary to gather information and analyze it. The decision-making act is largely based on the experience and intuition of the people involved in the decision-making process. Thus, the decision-making process takes into account more complex situations that involve a longer time during which a large amount of information is collected and analyzed in order to outline the decision. We can say that ***the decision-making process involves all the phases through which the decision is prepared, adopted, applied and evolved*** (Popeangă, 2007).

Of particular interest today is the way in which information managed by state institutions is reflected in the decision-making process. In turn, the usefulness of the information managed is determined by the characteristics of the information, namely its accuracy, completeness, relevance, cost-effectiveness, simplicity, verifiability, accessibility and security. At the same time, equally important for the decision-making process are the information systems used for the systematization of information, as well as the qualification of the staff involved in generating conclusions. And if in the enterprise for the quality of information and its systematization is responsible accounting, which has strict

rules of record, as well as a limited number of technical solutions for their processing, then in the case of public institutions there is no general rule for all on the type of information accumulated, the type of reports generated, unique analysis procedures. In this sense, each public institution, starting from its attributions and competences, models the systems of accumulation and management of information according to its needs. At the same time, if some public institutions, such as the State Tax Service benefit from the products generated by the accounting standards, namely the Information System of the State Tax Service is supplemented with reports of the economic agents in the value added tax part, income tax, employees, other taxes and others, which are generated by information systems guided by the rules of accounting, established by the Accounting Law and National Accounting Standards, and moreover, automatically loaded into the information system, then in the case of others public institutions, the latter are to make additional efforts in terms of the quality of the information administered. An eloquent example would be in this sense the information system that ensures the record of real estate of the Public Services Agency, where, starting from the quality of the documents presented, errors can be identified in the system, which in turn can affect the decision-making process.

In order to regulate the state information resources and to homogenize the processes of creation and development of the national information infrastructure, Law no. 467/2003 on computerization and state information resources was elaborated. The object of regulation of this law is the basic rules and conditions of activity in the field of creation and development of national information infrastructure as a functioning environment of the information society in the Republic of Moldova, regulates the legal relations that appear in the process of creation, training and use of information resources. automated state, information technologies, systems and networks. Also, the above-mentioned law defines some notions, which ensure a standardization in the process of creating the state information systems, which come to ensure the functional attributions of public institutions, namely:

- database - totality of data, organized according to a conceptual structure, which describes the main characteristics and the relations between the essences, destined to a field or several fields of application;
- information infrastructure - all computer information centers, data banks and knowledge in the integrated automated system of telecommunications and organization that provide users with general conditions for access to stored information;
- information system - totality of interdependent information resources and technologies, methods and personnel, intended for storage, processing and provision of information.

In turn, Law no. 71/2007 regarding the registers, published in the Monitorul Oficial no. 70-73, art. 314 of 25.05.2007, regulates the manner of establishing, registering, maintaining, reorganizing and liquidating the registers, the type of registers and their form of keeping, the system of state registers and the general principles of interaction of state registers. It is these elements that have the role of providing public institutions with qualitative, relevant information, efficiently accumulated in terms of administration cost, to allow the management of the information accumulated in order, in the end, to positively influence the decision-making process within public institutions. Or, the decision-making process represents the activity of logical thinking, realized in a certain organizational and legal framework and carried out in time by the management bodies, with the attraction of some compartments and specialists, in connection with the preparation, elaboration, realization and control of a decision.

The efficient management of information, its storage and access whenever necessary ensures, last but not least, the improvement of the institutional memory of the

public authorities of the Republic of Moldova. This fact becomes even more important as public authorities such as the State Fiscal Service already have 31 years of activity, the National Anticorruption Center 19 years, the Money Laundering Prevention and Combating Service 18 years. More recently, the Criminal Assets Recovery Agency, which is considered a "young" institution, has been operating for 4 years. Decisions taken over the years form an institutional practice, which, if they take into account previous decisions, increase the institution's experience in facing challenges, becoming more predictable and transparent in activity, thus increasing the integrity of public authority.

4. Conclusions

As a result of the research in order to establish the role of information quality managed by public institutions in the process of reducing the unobserved economy, ***the following conclusions were established, as follows:***

- The decision-making process in public institutions involved in reducing the phenomenon of the unobserved economy is dependent on both the quality of the information managed and the information systems that store and process that information.
- Information managed by state institutions that is generated in compliance with accounting standards has characteristics that positively influence their quality.
- Illicit financial flows leave "traces", which are used as relevant information by public institutions in the decision-making process in the field of reducing the unobserved economy. The state regulates the general principles, through the adopted normative framework, regarding the elaboration of information systems and their interoperability.
- Each public institution shall set up information systems to manage information relevant to its tasks, while paying particular attention to interoperability with existing information systems. It is necessary to standardize the acts and documents that are used as primary sources of information in public institutions.
- The activity of public institutions involved in reducing the phenomenon of the unobserved economy acts in a decentralized manner, both at the level of information accumulation and at the level of decision-making.

As a result of the shortcomings and risks of reducing the role of information for decision-making in public institutions involved in reducing the phenomenon of the unobserved economy, ***some recommendations can be mentioned to overcome deficiencies and reduce risks that hover over the decision-making process.***

- Thus, public institutions are to evaluate all its information systems in terms of the relevance of the information and, if necessary, the transfer of information to a system, the maintenance of which will be further ensured.
- In order to ensure coherence between paper and electronic information, the archives are to be digitized, but taking into account the cost-effectiveness.
- In order to ensure unique standards for the issuance of different types of documents, which are a source of information for the information systems that are used to identify illicit financial flows, the issuance of these documents itself should be done within the same information system, an eloquent example would be document management, where any generated document has predefined fields, and the information entered in these fields is stored in the system databases.
- It is also necessary to organize a country-wide audit of all information systems in order to exclude the practice of accumulating and managing the same type of information by different institutions, ensuring the interoperability of all information systems.
- It should be noted that, once the role of economic and financial information in the decision-making process of public institutions involved in reducing the phenomenon of

unobserved economy has been assessed, it is still necessary to evaluate the cost-effectiveness of the proposals submitted and the impact of the information on this decision-making process. At the same time, it is necessary to coordinate the activities of public institutions involved in reducing the phenomenon of the unobserved economy in order to streamline this process.

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EDUCATION PROVIDED BY HUNGARIAN UNIVERSITIES IN THE LIGHT OF SUSTAINABILITY AND INNOVATION FOR ECONOMIC PERFORMANCE

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Abstract: *In a changing world, only those who accumulate solid knowledge will be competitive in the long run. Since 2005, the number of Hungarian students has decreased by 30%. Meanwhile, the number of foreign students at Hungarian universities increased by 23.931. It is true that, due to tuition fees, those with modest incomes often cannot follow a university training program. Between 2005 and 2019, over 52% of students completed their state-funded studies. We must not forget that obtaining a university degree is just one piece of the puzzle. The real challenge is finding a well-paid job. Decreasing the number of unemployed is a necessity of the 21st century. In 2016, 1.231.453 higher education employees were registered in Hungary. Over the years, those who graduated from the Faculty of Pedagogy or the Faculty of Construction managed to quickly integrate into the field of work. We must not forget that online courses offer a fast and cheap way to develop knowledge and skills, one of them being K-MOOC.*

Keywords: university education, K-MOOC, employment, university degree, online education.

JEL Classification: I23, I25.

1. Introduction

The key objective for Hungary is to ensure the quality and increase the effectiveness of higher education. The specialized literature on university education in Hungary is extensive. In this article, I tried to present a few of them, so the reader can get an overview of the evolution and importance of education for Hungarian people.

The university tradition begins in 1367 with the foundation of the first university in Pécs by king Louis the Great of the Angevin house. With only two specializations, the canonical arts and law the university had ten teachers (Szögi, 1996). In the second half of the eighteenth century, rulers have recognized that it is in the state interest to ensure that citizens acquire useful and practical economic knowledge. The first school that try to meet this need was the Collegium Oeconomicum in Szenc, founded in 1763. Headed by five professors, the teaching was conducted in German, and the studied subjects were mathematics, accounting, double bookkeeping, financial literacy, public economics, and correspondence style (Antal and Baksa, 2015). In 1769, Maria Theresa set up a department for chamber sciences called Studium Politico-Camerale at the University of Nagyszombat, but from 1777 the chamber was transferred to the Faculty of Law until 1848. The studied subjects were: public administration, finance, economics, commercial law and exchange (Csizmadia, 1967). In 1846 was established József Ipartanoda, a new institution with three economic departments, but it failed to meet the developing economic needs of the Hungarian society. From 1857 the Pester Handels-Akademie (later the Budapest Academy of Commerce) try to transmit quality economic knowledge through materials such as English, French, Italian, mathematics, commercial arithmetic, commercial geography, statistics, accounting, commercial law, maritime and customs law, economics, knowledge and technology of goods (Antal and Baksa, 2015). Established in 1891, The Eastern Academy of Commerce, was established with the mission to transmit knowledge for trade with the Balkan countries and the Middle East. From 1899 the institution became an independent academy. In 1941, 87.089 was the number of university graduates, of which 75.316 was men and only 11.773 women. The Soviet educational model adopted after 1945 was characterized by a low participation rate over the years. In 1949, were registered just 93.235 degree-holders, in 83% favour of men. In 1960, were registered 163.005

degree-holders, by 1970 this number increased to 272.133 and in 1980 reached 448.094. Until 1993, Hungary had a small and elitist higher education system, nothing demonstrate this better than the number of degree-holders in 1990 was just 687.620 (Pusztai and Szabó, 2008). In 1990 were 77 Higher Education Institutions in Hungary, with 17.302 teachers.

2. Research methodology

The research in this article is a quantitative type. This involves the study of national and international specialized literature, as well as the analysis conducted by international organizations about higher education in Hungary. The approach was meant to highlight the changes after 1990 based on statistical data from the Central Statistical Office (KSH). The years 2011, 2016 were chosen for a detailed analysis, as they were census years in Hungary. The evolution of the increasing or decreasing number of university graduates over the years allows us to decide if efforts for developing a knowledge society have materialized or not.

3. The Hungarian educational challenges for being a knowledge-based economy

The adoption of the Higher Education Act (HEA) in 1993 starts the decentralization of higher education and the autonomy of higher education institutions. In 2000, more than 42% of men and almost 60% of women of the employed population had at least upper secondary level qualification (Lannert and Halasz, 2003, p.16). In 2001 were registered 888.345 degree-holders divided into age groups as follows: 25–29 years (116.199 persons), 30–34 years (107.237), 35–39 years (97.909), 40–44 years (105.714), 45–49 years (118.503), 50–54 years (100.583), 55–59 years (84.752), 60–64 years (50.978), 65–69 years (41.833), 70–74 years (32.945) and over 75 years (31.692). But the real compatibility of the Hungarian higher education system with the common European systems was the adoption of the Bologna process in 2005, and the application of the European credit transfer system (ECTS) (Pusztai and Szabó, 2008, p.87). Among the benefits of the process, we can mention the improvement of language skills, the orientation to practical knowledge transmission, and the preparation of the workforce for national and international economic needs.

In the territory of Hungary in 2005, were 71 higher education institutions with some 23.188 teaches, of which 8.808 were women. By 2019, the number of institutions decreased to 64, but the number of teachers increased to 23.383, of which 9.743 were women. (www.ksh.hu). The decrease in the number of institutions is not necessarily a negative sign, because the seven institutions have not disappeared but have merged with other universities, becoming even more competitive by offering quality education.

3.1. The situation of university students

The number of students enrolled in university education programs in Hungary since 2005 shows a decreasing trend until 2018. We are talking about a total of 424.161 students in 2005, the number decreases to 361.347 in 2010, in 2015 there are only 295.316 enrolled, and in 2018 their number reaches 281.461. This shows us that young people do not consider obtaining a university degree a priority. After 2018 we have an increasing trend (2019-285.110; 2020 – 287.460) which hopefully will continue. Regarding the number of women participating in university programs, we can see that since 2005 their number is higher than that of men. The number of male students over the years is under 180.000: 2005 (177.242 enrolled), 2009 (162.800), 2010 (161.767), 2013 (144.576), 2016 (131.312), 2019 (131.200), and 2020 (130.386). Until 2012 we have a relatively balanced situation of the number of students in the first and last year of study, as we can see in figure 1.

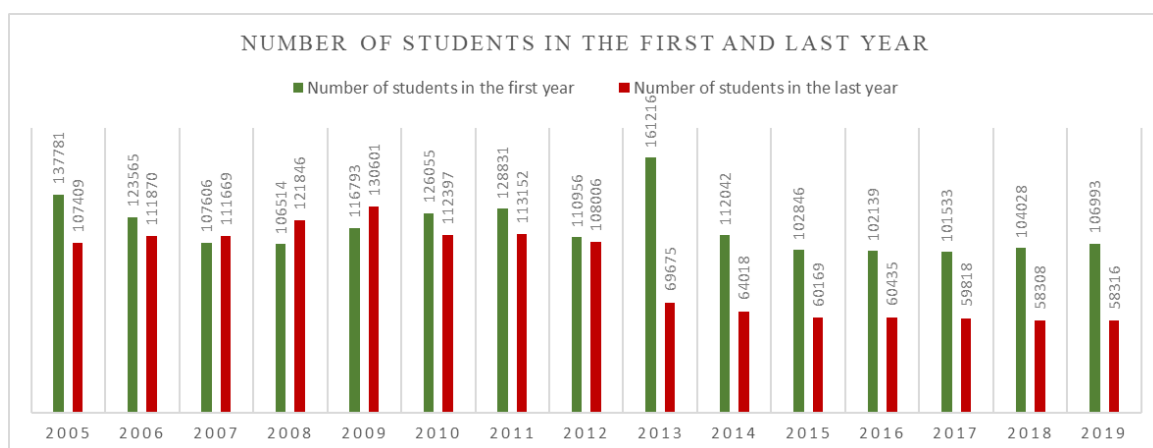


Figure no.1 Number of students in the first and last year (2005 - 2019)
Source: created by the author, based on information collected from KSH

There is a lot of debate about the size of tuition fees. (Ex: in general at Eötvös Loránd Tudományegyetem (academic year 2020/2021): bachelor's (first cycle) / year 1.000.000 Ft; master's (second cycle)/ year 800.000 Ft) (<http://to.ttk.elte.hu/?q=koltsegterites>). Many see this as an impediment to those who cannot afford to pay them. Since 2005, the Hungarian government has tried to secure more and more budgeted places at state universities. The number of those who studied without a fee in 2005 was 216.463, from 2006 (218.777) will decrease steadily, 2010 (209.548), 2015 (169.664), 2018 (161.676), but from 2019 (165.220) there is an increase of 3.544.

In 2001, the expenditures made for higher education from the state budget were 161871 million Ft. This amount increased every year until 2008, as follows: 2005 (226772 million Ft.), 2006 (234968 million Ft.), 2007 (253174 million Ft.), And in 2008 it reached 266745 million Ft. In 2009 and 2010, higher education receives less money. In 2011 there is a slight increase to 270646 million Ft. When Balog Zoltán came to lead the Ministry of Human Resources on May 14, 2012 (since May 29, 2010, this ministry incorporates the Ministry of Education and Culture) (<https://njt.hu/>) the amount for higher education decreased to 247517 million Ft. From 2013 begins an increase: 2013 (243645 million Ft), 2014 (257908 million Ft), 2015 (264484 million Ft), 2016 (300297 million Ft), 2017 (324778 million Ft), 2018 (339655 million Ft), 2019 (380276 million Ft).

Foreign students interest in Hungarian university programs is demonstrated by their growing number: 2005 (14.491 foreign students), 2010 (18.850), 2015 (26.155), and 2019 (38.422). In 2014, most foreign students came from Germany (2.893), Slovakia (2.120), Romania (1.992), Serbia (1.517), Brazil (1.362) and Ukraine (1.080), while in 2019 from Iran (2.024), China (2.776), Germany (3.449), Romania (2.593) and Serbia (2.209). Among the foreign students' reasons for learning in Hungary, we can mention: to know new cultures; the material plays an important role (Hungary was cheaper than another possibility); mostly because of learning and language learning; because it was close to their country; after graduation, they intend to stay in Hungary; they came with a friend. Those who come for the acquisition of a large amount of knowledge study at the Faculty of Medicine. Those who intend to stay after graduation, study at the Faculties of Economic Sciences and the majority are women (Kéri, 2016, p. 42). Medical training is traditionally the most popular among foreign students, at the universities: Semmelweis University in Budapest, the University of Debrecen, the University of Pécs, and the University of Szeged. In 2020, 15,000 scholarships were offered to students for master's and doctoral programs fully funded by the Hungarian Government.

3.2. The sustainability of education in the light of 2011, 2016 censuses

In 2011 we are talking about a total number of 1.382.398 degree-holders, most of them being part of the age group 30-34 (214.124 people). According to the field of the degree, the most popular category was Social sciences, economics, law (male 140.864; female 271.556), followed by Pedagogy (male 80.798; female 283.482), Technical, industrial and construction training (male 199.615; female 50.341), Health and social care (male 31.058; female 80.514), Agriculture and veterinary sciences (male 47.701; female 31.140), Services (male 46.263; female 30.032), Mathematics, computer science, other natural sciences (male 48.738; female 21.178), Humanities and arts (male 28.867; female 38.028), and hybrid specializations (male 4.438; female 5.003). In the Social sciences, economics, law category the division of the number of higher education graduates by age groups shows the following: 30-34 age group (81.790 graduates), 25-29 (70.254), 35-39 (60.810), 40-44 (38.793); 55-59 (27.387); 45-49 (25.730); 20-24 (23.661); 50-54 (22.907); 60-64 (22.600); 65-69 (16.146); over 75 years (13.419); 70-74 (8.923). Pedagogy is the most popular among those aged between 35-39 (47.440 persons), in contrast to those most popular among the 30-34 age group like Humanities and arts (10.304), Mathematics, computer science, other natural sciences (14.539), Agriculture and veterinary sciences (12.505), Health and social care (13.813). The majority who had a degree in Services (30.029) or Hybrid specializations (1.182) were in the age group 25-29.

In 2016, 1715.661 degree-holders were registered, in a proportion of 56% - 44% in favour of men as we can see in figure 2.

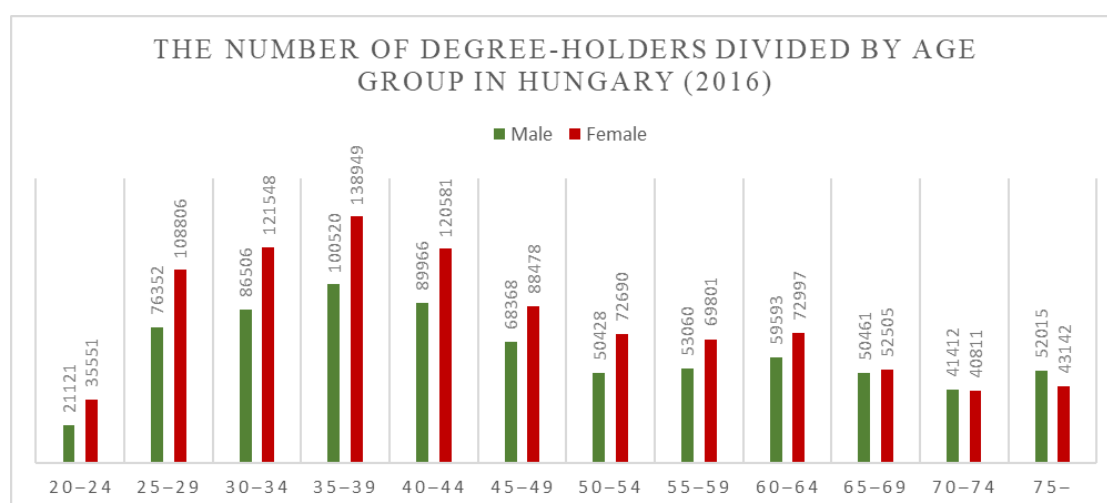


Figure no.2 The number of degree-holders divided by age group in Hungary (2016)

Source: created by the author, based on information collected from KSH

If we look at the division by age groups we will see that the first five places are occupied by the age groups 35-39 (239.469), 40-44 (210.547), 30-34 (208.054), 25-29 (185.158), 45-49 (156.846). According to the field of the degree, the most popular category was Social sciences, economics, law (male 179.645; female 338.011), followed by Pedagogy (male 83.658; female 307.409), Technical, industrial and construction training (male 252.680; female 64.235), Health and social care (male 36.515; female 97.092), Humanities and arts (male 37.18; female 52.906), Services (male 51.157; female 36.913), Agriculture and veterinary sciences (male 49.700; female 32.771), Mathematics, computer science, other natural sciences (male 52.651; female 28.855), and hybrid specializations (male 6.615; female 7.667).

4. The employment rate of the population with higher education

It is not enough to talk about the number of graduates or holders of a university degree we must be aware that the next important piece of the puzzle is finding a job. The number of employed people with tertiary education in 1990 was 534.605, a proportion of 55% - 45% in favour of men. Those who worked held a degree mostly in Technical, industrial and construction training (137.000) or in Pedagogy (133.425). In 11 years, the number of university graduates who integrate into the field of work increases by 141.220, so in 2001 we talking about 675.825 people, with 2.141 more women than men. Most of them with degrees in Pedagogy (201.977), Humanities and arts (144.301), and Technical, industrial and construction training (138.221). According to 2011 data, 994.637 was the number of employed people with higher education. In a proportion of 55% - 45% in favour of women. Predominantly those who held a degree in Pedagogy (243.840), Social sciences, economics, law (297.628), Technical, industrial and construction training (165.780) managed to find a job. Since 2011 people with a degree in Social sciences, economics, law are becoming very active in the field of work, and their number is growing day by day. In 2016 was registered 1.231.453 employed with tertiary education, most of them in Social sciences, economics, law (388.987), Pedagogy (265.159), Technical, industrial and construction training (221.861), and Health and social care 100.329). With a difference of 108.257, women (54%) compared to men (46%) were integrated into the labour field. Over the years those who graduate in Pedagogy or Technical, industrial and construction training are mostly employed.

5. K-MOOC – online education in Hungarian style

In 2006 was started the Hungarian innovative project called K-MOOC (Carpathian Basin Online Education Center/ Kárpát-Medencei Online Oktatási Centrum). Primarily the project objective was to disseminate Hungarian courses in the Carpathian Basin. The program participants are mostly universities and colleges in Hungary and a few institutions abroad as we can see in table no.1.

Tabel no. 1. Institutions of the K-MOOC network

Higher education institutions of the K-MOOC network in Hungary	Higher education institutions of the K-MOOC network across the border
Budapest University of Technology	Sapientia Hungarian University of Transylvania, Romania
Corvinus University of Budapest	Selye János University, Slovakia
University of Szeged	Babes-Bolyai University, Romania
University of Debrecen	Partium Christian University, Romania
University of Pécs	University of Novi Sad, Faculty of Hungarian Language Teacher Training, Serbia
University of Miskolc	Constantinople University of Nitra, Faculty of Central European Studies, Slovakia
St. Stephen University	Comenius University, Slovakia
Pázmány Péter Catholic University	Technical College of Subotica, Serbia
Óbuda University	Hungarian Scientific Society of Vojvodina, Serbia
Eszterházy Károly University	Strossmayer University, Croatia
University of Kaposvár	Danubius University, Slovakia
Pallasz Athéné University	MÜTF Education Center, Romania
University of Dunaújváros	Târgu Mureş University of Arts, Romania
King Sigismund College	
University of Nyíregyháza	

Gábor Dénes College
Reformed Theological University of Debrecen
Apor Vilmos Catholic College
Sárospatak Reformed Theological Academy
Kodolányi János College
Bhaktivedanta College of Theology
Wekerle Sándor College of Business

Sursa: created by the author, based on information collected from K-MOOC main page

Being a recognized online education and a promoter of lifelong learning, the platform courses respect the credit recognition system based on the 46 articles of the Regulations for the Study and Examination of the University of Óbuda (www.kmooc.uni-obuda.hu). The courses are divided into five categories: Social science, Economy, Art history, IT, and Technical sciences. In the Social Sciences category, there are 13 courses to which 2-5 credits are assigned depending on the complexity. The most popular in 2020 were Digital Pedagogy (2 credits), Individual and Group Problem Solving Techniques (3 credits) and TeachUP (2 credits). In the Economics category, there is only one course called e-Business, the economics of the information society with 4 credits. The category Art History with the three courses: Cultural history of jazz I, Cultural history of jazz II and History of the Art in 2020 failed to attract a large number of participants. Eight courses are offered in the IT category: Data structures and algorithms (5 credits), Application development based on Drupal (2 credits), ASP.NET Core web application development with Orchard Core CMS (2 credits), HTML5 (2 credits), Control technology (4 credits), Java microservice project (3 credits), Computer Networks (3 credits), and Content Management in the Cloud: Orchard CMS (2 credits).

These courses in 2020 have been very successful due to the transfer of educational life in the digital world. Accessed mainly by students and teachers from rural areas, they have a well-developed plan. They are ideal for acquiring knowledge in a simple, practical and fast way.

6. Conclusions

The number of university students is declining from 2005 (424.161) to 2018 (281.461). Between 2005-2019, the presence of women is higher than that of men, which shows that they give more importance to a university degree than men. High tuition fees represent a problem for many people with low income. In 2005 only 216.463 students studied free of charge, and their number in 2019 reached 165.220. Foreign students number grew over the years: 2005 (14.491), 2010 (18.850), 2015 (26.155), and 2019 (38.422), most of them came from Germany and Romania. Based on data provided by the 2011 census, most of the degree-holders (1.382.398) was part of the age group 30-34 (214.124). In 2016, 1715.661 degree-holders were registered, in a proportion of 56% - 44% in favour of men. The biggest fear of the Hungarian universities is that their education structure not suitable for labour market demands. Between 2005-2016 those who graduate in Pedagogy or Technical, industrial and construction training was mostly employed. The Hungarian innovative project called K-MOOC, with online courses in five categories, from 2016 contributes to the assimilation of quality knowledge for sustainability.

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SOCIAL ENTREPRENEURSHIP: AN OVERVIEW

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Abstract: *Social entrepreneurship may lead to sustainable economic growth through establishing the wellbeing of the society. Derived from the traditional entrepreneurship, social entrepreneurship is described as a responsible way of doing business. The concept involves the use of all available resources, capitalized in an economic entity with the aim of facilitating the production of a beneficial change in the society by solving pressuring social problems. Thus, social entrepreneurship marks the transition from the fundamental goal of increasing profits to that of community welfare and sustainable development of the economy. The paper aims to present a conceptual framework that can be used to define social entrepreneurship. The research methodology was based on the collection and analysis of secondary data, respectively scientific articles, and relevant books for the subject. The results of the study show that the interest for the social entrepreneurship concept has increased significantly in the past decades among researchers. Also, they outline the idea of what social entrepreneurship is and how it is implemented.*

Key words: *entrepreneurship, social entrepreneurship, social entrepreneur, social added value.*

JEL Classification: L26.

1. Introduction

Entrepreneurship represents a fundamental element for “certifying the dynamism of the modern market economy” (Toma, et al., 2011, p.162). Its contribution is significant to economic development by creating new jobs and benefits from new business opportunities and giving the possibility to an important part of the population to satisfy their entrepreneurial initiative, to achieve both economically and socially objectives (Toma, et al., 2014).

Derived from the traditional entrepreneurship, social entrepreneurship is described as a responsible way of doing business. It may also be seen an opportunity to manifest distinctive personality traits or an impressive collection of individual skills mobilized for the wellbeing of the society in a legal framework. Regardless of the angle from which it is viewed, the concept reveals a part of the direction in which entrepreneurship is heading to, namely from individual and financial gain towards common benefits, humanity, spirituality, and solidarity.

This article includes the basic information needed to outline the idea of what social entrepreneurship is and how it may be implemented, contributing to a better understanding of the concept. The definitions presented are analysed based on distinctive and common elements associated with the term. The conceptual framework of social entrepreneurship is developed starting from the characteristics of traditional entrepreneurship. The aim of this study is to clarify the concept of social entrepreneurship by presenting some key features of the domain.

This paper is structured as follows. The upcoming section represents the literature review (2nd section), which is divided into two parts: an overview of the key component features of entrepreneurship and the entrepreneur term; exploring the conceptual framework of social entrepreneurship and identifying key characteristics of the domain. Afterwards is presented the description of the research methodology (3rd section), followed by the results and discussions (4th section) and conclusions as ending part of the article.

2. Literature review

2.1 Theoretical aspects regarding the entrepreneurship and entrepreneur term

Traditional entrepreneurship has not benefited from a methodical record of its forms and evolution over time. The existing and relevant literature in this regard, highlights the fact that the interest of academics for the concept of entrepreneurship increased significantly with the Industrial Revolution in Great Britain (historical moment that creates a development perspective for SMEs, also) (Shaw, et al., 2017).

Nowadays, entrepreneurship represents an important and complex field from the economic sphere. The concept importance cannot be neglected for the economy of a country or region due to the vast role they play, namely sustainable growth, value added creator and agent of innovation. It involves identifying an opportunity by an individual or a group of people, setting up an economic entity and using available resources for a well-defined purpose. The functionality of the economic entity, as well as the purpose pursued, depends on the nature of the entrepreneur. The latter being the center of entrepreneurial action and the first indispensable component of entrepreneurship of any kind. Etymologically, the word “entrepreneur” comes from the French language and it symbolized a person who initiates a large project or action (Conway Dato-on and Kalakay, 2016).

The “entrepreneur” meaning has been discussed and developed by economists, researchers and academics. Cantillon, for example, pointed out that there is a link between the entrepreneur and his willingness to take risks (Littlewood and Khan, 2018). According to the French economist Say, the entrepreneur can identify, attract and capitalize on resources (Loh and Mohtar, 2015). Schumpeter correlates the term with innovation and vision, Drucker with the possibility of exploiting opportunities and Stevenson contributes with the element of ingenuity (Chaston and Scott, 2012). Hence, through their contributions, the first characteristics and abilities of the contemporary entrepreneur came to light.

From the business perspective, entrepreneurship represents “the engine that creates contexts where innovation can improve business activity” (Toma, et al., 2017, p.537). Small and medium-sized firm (SMEs) provide the legal framework necessary to carry out entrepreneurial activity. Therefore, they represent another main component in traditional entrepreneurship. The entrepreneurial firms “contribute to sustainable development, create new jobs, enhance economic resilience and improve social cohesion” (Toma, et al., 2020, p. 111) and are seen as drivers of economic growth (Grădinaru, et al., 2017). These have had an interesting evolution over time: they have moved from institutions organized around the temples and palaces of Mesopotamia, when religion required the individual to work only for the community, not for himself, the basis for starting big companies, but without them disappearing. Their evolution is marked by the emergence and development of trade, especially maritime, markets, “super-companies”, Protestantism and the 3 Industrial Revolutions. The first two Industrial Revolutions even make a significant contribution to the evolution of the concept of enterprise through technical progress, which is also beneficial for the entrepreneur, as he becomes an innovative person who seizes opportunities through cooperation and progress (Landes, et al., 2011). Today, SMEs are perceived as an important driver for the economic growth of a country or a region due to their vast role: important employer, value-added creator, player with potential in international markets and agent of innovation.

In sum, two of the most relevant elements used for developing an understanding of the entrepreneurship concept and its utility are represented by the entrepreneur itself and the legal form that sustains the entrepreneurial activity, namely SMEs.

2.2. The conceptual framework of social entrepreneurship

Social entrepreneurship is an interesting phenomenon for both academics and non-academics (Goia, 2016). The upward blooming trend of the concept can be explained by the fact that individuals have access to information, they become more aware and have expectations from each other and from institutions. The mentality of humanity changes and pursues the common good, not just the individual one. Social entrepreneurship has become an opportunity for individuals to contribute to the wellbeing of the society.

The conceptual framework of social entrepreneurship is a common topic in the exiting literature. There are many definitions that can be used to capture the features of the term, but none of them was been globally accepted as the common reference. In consequence, the need for further research regarding the notion of social entrepreneurship and the accompanying descriptive elements is still required.

Most of the existing studies reveal an attempt to define the concept starting from the understanding of social entrepreneur itself or from theories of traditional entrepreneurship (Goia, 2016). Banks was the one who mentioned for the first time, in one of his publications, the necessity of the social entrepreneur notion. In the author's view, the social entrepreneur is the person who uses his managerial skills to solve both social and economic problems (Trivedi, 2010).

Subsequently, Dees starting from the theories stated by Say, Schumpeter and Drucker regarding the entrepreneur, proposes a reference description of the social entrepreneurs. Dees calls them agents of social change because they create and maintain added social value by mastering a mission; identify and capitalize on opportunities to support the mission; is in a constant process of learning, adaptation, and innovation; are not intimidated by limited resources; act responsibly regarding the causes served and the results created (Praszkier and Nowak, 2012, p.9). This definition marks the beginning of research dedicated to the concept of social entrepreneurship and its constituents (Praszkier and Nowak, 2012). Social entrepreneurs are perceived as the initiator of change because they fight against social problems caused by the limitations and deficiencies of existing markets and seek to develop society sustainably (Roger and Sally, 2015). Bill Drayton, the founder of Ashoka and one of the pioneers of the social entrepreneurship concept, declared that “the social entrepreneurs are creative and ethical, individuals with vision, who have entrepreneurial skills and an innovating idea about how to solve a pressing social problem” (Banks, 2016, p. 25).

Some authors argued that social entrepreneurship can be considered a process that involves using innovation and combining resources, identifying opportunities, catalyzing social change and addressing social needs (Urban, 2015). The process can be interpreted as a structured way to reach a result.

Yunus also described social entrepreneurship as “an innovation created to assist people” (Moingeon, et al., 2010, p.311). Santos supported the association of social entrepreneurship with the concept of innovation and completes the definition provided by Yunus by stating that: “Social entrepreneurship is a process of innovation in the economy that can take place in different institutional contexts” (Peng and Lin, 2016, p.1232). Social entrepreneurship depends on the socio-economic, institutional and cultural environment. It creates added social value and changes society (Galera and Borzaga, 2009).

Martin and Osberg (2007) argued that entrepreneurship can be defined by the following elements: 1) the entrepreneurial context; 2) entrepreneurial characteristics; 3) entrepreneurial result (Vlăsceanu, 2010, p.174). These three components are also applicable in the case of social entrepreneurship (Fig. no. 1).

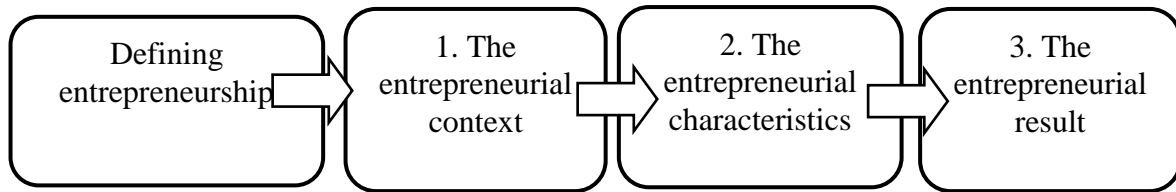


Fig. no. 1: The process of defining entrepreneurship according to Martin and Osberg (2007)

The entrepreneurial context aims to restore the positive balance (Vlăsceanu, 2010). In this stage the social entrepreneur, notices the existence of a problem, respectively the “unsatisfactory balance”, identifies the opportunity, intervenes by creating the action to produce change. The desired entrepreneurial result is highlighted by the positive impact produced, the change of the initial situation, the creation of a new balance and, eventually, the permanence of wellbeing (Vlăsceanu, 2010).

The uniqueness of the social approach of entrepreneurship replays in the cause that needs to be solved in order to establish a positive balance in the society. Bornstein and Davis defined social entrepreneurship as a process by which citizens build or transform institutions to obtain advanced solutions to social problems, such as high levels of poverty, disease, disadvantage, pollution, disrespected human rights and corruption, in order to contribute to the creation of better living conditions for people (Bornstein and Davis, 2010).

What is certain is that social entrepreneurship has multiple dimensions and meanings that vary from individual to individual (Galera and Borzaga, 2009). It can be described as a non-profit initiative to attract financial resources, or an instrument through which added social value is created or a responsible business practice that engages in partnerships with other sectors (Praszkier and Nowak, 2012). Regardless of the perception about the concept, its potential is the same: solving social problems and improving daily living conditions.

3. Research methodology

The present study represents a quantitative research. It involves the collection and analysis of secondary primary data (scientific articles and existing books relevant for the topic). After setting the research aim objective, respectively developing a conceptual framework that can be used to define social entrepreneurship based on exiting literature, the first step conducted in this research in order to achieve the stated objectives was finding relevant scientific journals for defining the conceptual framework of social entrepreneurship. Well-known sources such as Emerald Insights and ScienceDirect were used in this scope.

The second step followed was building a data base with the definitions and characteristics of the traditional and social entrepreneurship. Based on the collected information the structured of this paper has been develop in accordance with the used journals. This approach regarding the consolidation of the structure is similar with the various studies used as reference such as Bank (2016) or Urban (2015). Starting from a briefly introduction of the importance and key components of traditional entrepreneurship, the conceptual framework of social entrepreneurship emerges based on similarities and some distinctive features between the two related notions.

As a practice identified in the stated journals, the analysis began with the social entrepreneur term and the associations made around its capabilities and distinctive orientation. Afterwards, the understanding of social entrepreneurship has been extended to the theories of traditional entrepreneurship that can be used as a start point in defining the

concept, emphasizing, at the same time, on the distinctive features of the field (initiate social change and establish positive balance). The definitions provided as reference have been analyzed based on common and new elements or characteristic associated with the social entrepreneurship concept. A conceptual framework has been created in this regard based on the identified aspects.

The following step was adding a supplementary component to the structure of the conceptual framework developed in previous phase, namely economic entities giving the importance they have in sustaining the social entrepreneur's activity.

4. Results and discussions

Starting from the analyzed definitions, the essential components of the conceptual frame of social entrepreneurship can be considered the following: the social entrepreneur, the opportunity, the social problem, the entrepreneurial skills, the possible solutions, the resources used and the change (Fig. no. 2).

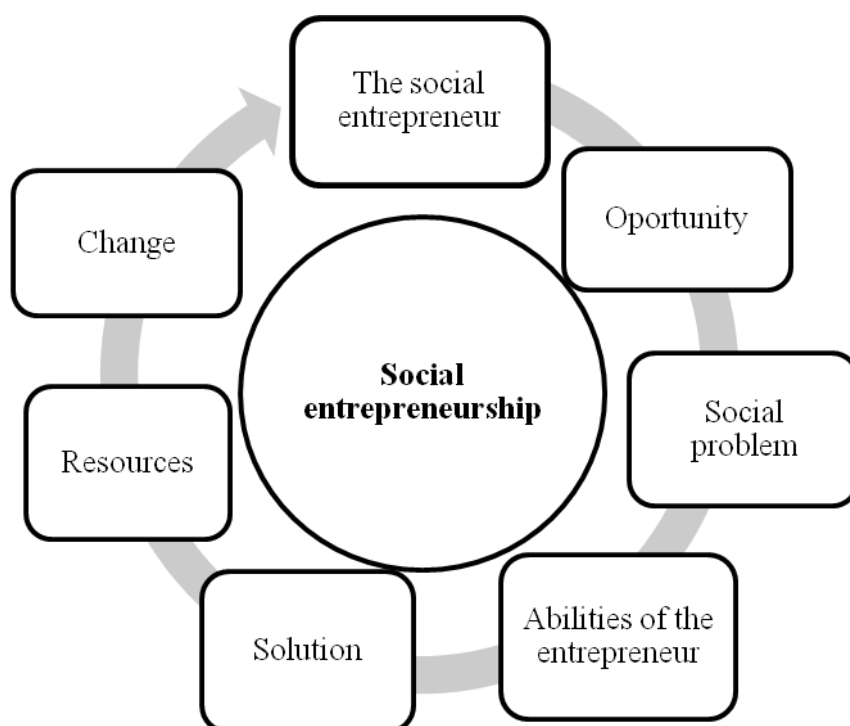


Fig. no. 2: The conceptual framework needed to define social entrepreneurship following the revision of definitions

The social entrepreneur notices the opportunity to solve a social problem. He uses his entrepreneurial skills to find a possible solution to solve this problem. He is also the one who identifies, attracts, and uses the necessary resources to implement the solution. If the proposed solution and the resources are properly capitalized, then a beneficial change takes place at social level.

Most probably, for every definition conceived over time, there can be a social entrepreneur who, through his success story, may support the plausibility of the definition. A practical example that supports, at the same time, the theory stated by Martin and Osberg is the success story of the social entrepreneur, Muhammad Yunus. A notable event in the evolution of social entrepreneurship took place in 1976 when Muhammad Yunus,

the founder of Grameen Bank, decided to change the microcredit system in Bangladesh by promoting conditions for bank lending that even the poor could afford. The model proposed by him for solving the identified problem and establishing the balance, was replicated worldwide, giving poor people a chance at a better life. The entrepreneurial context, in this case, is represented by the entrepreneur's ascertainment: the poor people in Bangladesh could not afford to repay the bank loans due to the high interest rates. When applying for a bank loan, an individual must comply to the terms of the contract. When he cannot afford to return the borrowed money, the possibility of reaching an even more dramatic situation than the initial one is an accepted reality and an assumed risk. Yunus, however, does not perceive this incident as being a normal one. In his case, normality implies the existence of affordable credit solutions based on the possibilities of the population (positive balance). The moment he decides to act, setting up Grameen Bank, and creating change by mobilizing available resources, he becomes a social entrepreneur. The intention to produce change is fundamental for the action step. Entrepreneurial success, articulating on this specific case, is the positive impact created by improving the living conditions of humans. The receptivity of the parties involved also contributed to the success of Muhammad Yunus.

The social entrepreneur's perception of a certain situation is a fundamental aspect that creates intention to act and change. Motivated by fairness and ethical principles, he is more willing to notice a situation that the rest of individuals do not pay attention to. Consequently, the social entrepreneur does not accept a reality that others may consider it as normal. In addition to creativity and the ability to innovate, the social entrepreneur requires resilience, focus and the ability to create interest among individuals and organizations, to achieve its goal. Although the social entrepreneur is the initiator of a change, the materialization of the change depends on a collective effort.

A business supposes the existence of a profit. The social entrepreneur is engaged in a "doing good" business. Unlike economic entrepreneurship, which involves sustained efforts to obtain a financial gain, social entrepreneurship seeks to procure social benefits. Regardless of the type of entrepreneurship, the correct capture and use of resources is essential for achieving the entrepreneur's objective. The establishment of an economic entity facilitates the obtaining of resources and the achievement of the desired entrepreneurial result.

Social entrepreneurship is a tool through which the life of individuals can be improved. At the same time, the concept is associated with economic growth and it is considered an innovative process.

Many of the existing studies focus on explaining the concept of social entrepreneurship through personality traits and general capabilities of the social entrepreneur compared to the economic one. Although this approach contributed significantly to the understanding of the field, it did not solve the problem. The set of entrepreneurial skills must be adapted or improved given the legal form of the economic entity under which the entrepreneur chooses to operate. Economic entities, regardless of their type, facilitate the obtaining of resources necessary to achieve the goal. Focusing on social entrepreneurship these legal forms that sustain and justify the social entrepreneur's action facilitate the materialization of the aspired social change (Javed, et al., 2019). Therefore, the conceptual framework of social entrepreneurship can be described by the combination of eight terms: social entrepreneur, opportunity, social problem, entrepreneurial skills, possible solutions, resources used, change and existing economic entities (Fig. no. 3). The latter being a means by which the purpose of the entrepreneur is fulfilled.

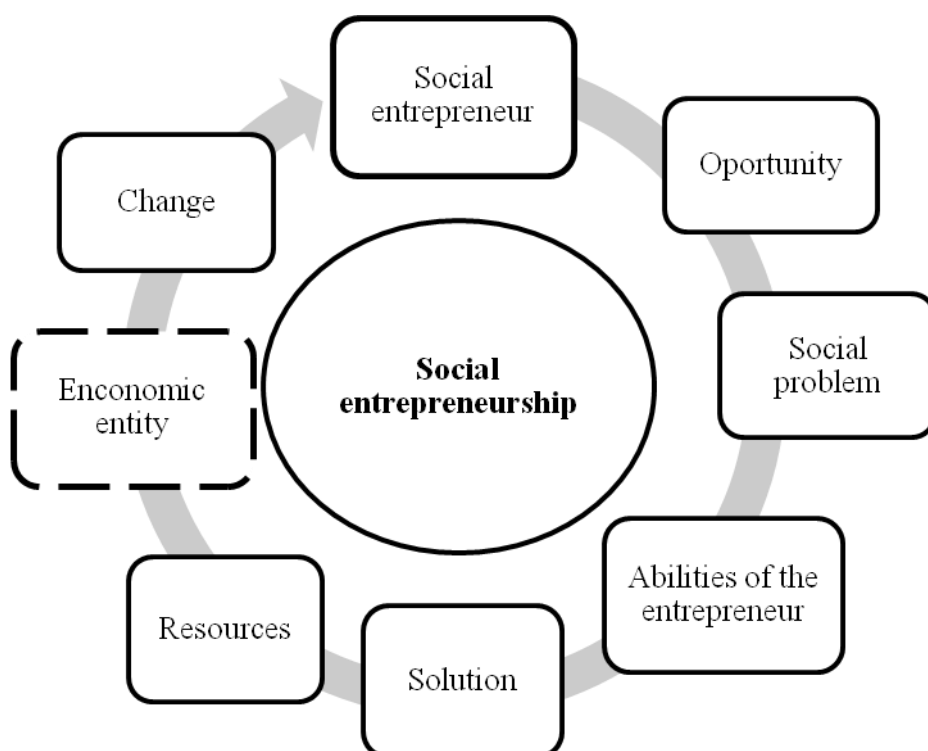


Fig. no. 3: Author's proposal on the conceptual framework needed to define social entrepreneurship

These proposed components may be interpreted as an extension of the model developed by Martin and Osberg, where: the entrepreneurial context consists of opportunity and social problems; entrepreneurial skills, solutions, resources and economic entities represent the manifestations of entrepreneurial characteristics; change is the entrepreneurial result.

An overview of the conceptual framework of social entrepreneurship as been provided in this paper based on the key features identified through literature review of some existing definitions regarding the notion. This research as its limitations. Only few of the most relevant and used definitions for explaining the social entrepreneurship notion have been used to construct the proposed conceptual framework.

5. Conclusions

Social entrepreneurship can drive sustainable economic growth through establishing the wellbeing of the society. The concept has become a topic of interest for researchers and individuals that aim to make positive changes, due to its contribution on the social level. The emergence of social entrepreneurship is clearly a proof of increased involvement among individuals and human mentality, in general.

The reality is that social entrepreneurship has become a topic of interest due to its contribution to economic growth through job creation, social inclusion, and community development. Economic entities own a significant role in this context. They can be considered as a transparent way in which the actions of the entrepreneur, regardless his typology, can be justified and supported. An entrepreneurial initiative cannot have a resounding impact at social level if it is not supported by the rest of the individuals. In addition to affinity, availability, and resonance with the social cause, it is about strengthening trust in the relationship with potential individuals or partner organizations.

Economic entities can be considered an intermediary between attracting, capitalizing on resources and the actual obtained result. Change is initiated by an individual, the social entrepreneur, but success involves a joint effort, where everyone should have a contribution.

The outcome of study concurred with other theoretical approach on defining social entrepreneurship through traditional entrepreneurship (Zainea, et al., 2020). The conceptual framework has been stated by extending their model with the common and distinctive elements from some of the most used definitions associated with the notion of social entrepreneurship, creating a clear structure of the components relevant for the topic analyzed. Economic entities play an important role in facilitating social changes and capturing resources required in this regard. This affirmation is also supported by other researchers (Javed, et al., 2019). Thus, this is the reason why a complete definition of social entrepreneurship should take into consideration also these legal forms that support the social entrepreneur to accomplish its mission. Future research can be conducted in order to improve and sustain the viability of this theoretical model.

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CONSIDERATIONS FOR USING CLOUD COMPUTING TECHNOLOGY IN THE ACCOUNTING OF ECONOMIC ENTITIES

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Abstract: *Cloud Computing technology has entered the business environment strongly where entities are motivated by the cost and efficiency advantages of the new technology. On the Romanian market, gradually, Cloud applications are gaining ground to the detriment of applications that operate locally. The advantages of Cloud technology are numerous and cannot be overlooked, especially by small and medium-sized entities. Cloud Computing is slowly but surely transforming. The accounting industry by offering the possibility of streamlining accounting processes, in order to reduce costs and adopt services that add value in a system that operates on a subscription basis.*

Keywords: *Cloud Computing, entity, costs, accounting computerization, efficiency.*

JEL Classification: *M41, M15.*

1. Introduction

Given that information technology has evolved extremely rapidly in the last decade, there is a need for a new approach to computerization of accounting, which can have a positive impact on the business. For many of the entities, accounting is a cumbersome and time consuming process. Collecting and recording data, organizing information, reconciling accounts, and generating reports can be difficult, costly, and error-prone activities. This is often due to the use of outdated accounting systems in terms of information technology, which prevent information from being provided in real time, affecting the entity's ability to react to the competitive business environment and causing business to operate below an optimal level. Traditional accounting systems are proving to be inefficient in relation to technological alternatives in the market (Arslana and Karanb, 2009). According to a survey conducted by Deloitte Global in the second half of 2012, “CFO Signals”, almost half of the financial executives interviewed answered that the IT systems they use do not adapt to changes in business strategy and only 40% answered positive in their ability to provide information in a way that provides a relevant and accurate picture of the business and facilitates decision-making. An online accounting software in the Cloud offers managers and employees the possibility of global data access, being able to update the information whenever they want, regardless of location. The Cloud is also defined as a simple way to capture meaningful data content and account management. The most motivated option in choosing the Cloud deployment is to reduce costs. Expert Group (2012) stated in a European Commission report that Cloud technology promises users easy access to resources through a self-service subscription, thus reducing the cost of administering the system. Cloud technology requires minimal investment in hardware and maintenance (installation of upgrades, troubleshooting, back-up) is provided by the vendor, at no additional cost. Large accounting firms and organizations in the accounting profession have responded to the growing phenomenon of using Cloud-based technologies in accounting by providing guidance on adapting Cloud services.

2. Literature review

A December 2012 study by KPMG on global cloud trends reveals that more and more managers are prepared and opting to migrate the financial and accounting process to the Cloud. The study “Cloud Adoption 2012”, conducted by Consult Blue, at the request of CIO Council (Association of Directors of Information and Communication Technology in Romania), shows that 55% of large companies in Romania use, in various forms,

technologies in the category Cloud Computing . As a rule, the costs involved in using Cloud applications are lower than those running applications locally, on own equipment (Beckham J., 2010). A report by Harshman Phillips, which provides accounting services in the United States, provides a deeper picture of the benefits that Cloud brings to the operational level of a business in its financial-accounting business. In this way, the financial relationship of the business partners can be greatly improved in the sense that it can give up time and resource consuming activities, such as the physical exchange of data and information between the client and the accountant. Thus, organizations in the accounting profession such as the American Institute of Certified Public Accountants (AICPA) consider Cloud Computing technology as one of the viable forms of business operation. An article published in the Journal of Accounting in 2010, "Cloud Computing: what accountants need to know", indicates a number of ways to use Cloud-based applications in works such as confirmations required for auditing, payment of invoices, customer relationship management (CRM), preparation of financial statements, salaries, sales or taxes.

3. Research methodology

The elaboration of the study is based on the deductive theoretical research that allowed the formulation of individual conclusions regarding the use of Cloud technology in the accounting of entities. This was complemented by an inductive type of research based on particular judgments that were the source of some general conclusions regarding the use of accounting software in the Cloud. The main methods used in the research and which were the basis of this study were documentation, observation, deductive and inductive reasoning, analysis, synthesis.

The categories of documentation sources were obtained based on bibliographic documentation and webographic documentation.

Of the two types of observation (external observation and participatory observation), external observation was mainly used, which led to generalizations and interpretations summarized in pertinent conclusions and comments on the possibilities of using Cloud Computing technology in the accounting of economic entities.

4. The advantages of Cloud technology in accounting

4.1. Automate the process of data collection and processing

An important part of Cloud services is the integration of the document scanning process. Invoices can be scanned and posted automatically in the accounting system, after which the accountant can verify and validate the record. By scanning the documents the processing cost decreases as the invoices can be scanned in a large volume or by each individual customer. Through Cloud Accounting, accounting firms can compete with those that provide accounting services at a much lower cost. By encouraging clients to scan related invoices on a daily basis, the accountant can have real-time information that can be used to generate adjacent services to add value. Cloud Computing can provide new classes of applications and provide services that were not possible before. Thus, compared to traditional accounting, the Cloud accounting system can make the transition from basic accounting records to real-time business analysis, using large amounts of resources to understand customer needs, buyer behavior, supply chains. Process automation allows the financial department to collaborate with the other internal functions of an entity by facilitating access to data and provides business units with analysis tools. This improves the decision-making process and enables managers and executives to perform their tasks more efficiently, with the help of real-time information, without compromising data integrity. Similar to how the browser-based version and the mobile version of cloud

accounting software can connect to each other, these applications can also connect to other third-party Internet-based applications. Connecting to different applications can simply mean transactions automatically related to basic accounting software or even adding and improving features in basic accounting software. Some applications, such as Expensify, have taken a step further by incorporating OCR (Optical Character Recognition) technology that interfaces with cloud-based accounting services. Optical Character Recognition (OCR) is software that converts document images into editable computer text files. This allows users to scan forms, such as physical invoices and other images, such as PDFs, to make them searchable and fillable. This allows the program to identify key information on a form (eg seller name, date and amount) and automatically send it to the system.

Another technology that could increase the transmission of data retrieved from OCR is artificial intelligence (AI). AI is a computer-based expert system that attempts to mimic human behavior (Laudon and Laudon, 2018). By automatically learning what is the process of improving computer programs without explicit programming (Laudon, 2018), software can be "learned" to perform tasks and even improve them. As the AI program becomes more familiar with how expenses and other transactions are entered into the accounting software, the AI becomes better at automatically classifying and entering transactions. QuickBooks Online already has AI in place with the self-ranking feature and expense finder ("Machine Learning: Unlocking the Power of Millions for Prosperity One," 2017). Together, AI and OCR have the potential to reduce manual data entry time and errors for users of cloud-based accounting applications.

4.2. Improving the accountant-client relationship

Clients can access the accounting firm's portal and have access to information for understanding and analyzing the entity's financial position at any given time. They can also analyze the impact of currency fluctuations or track the cash flow that is useful in the decision-making process. The accounting profession can offer new services such as business analysis or cash flow forecasts, in the sense of providing a deeper financial expertise that entities will find essential in maintaining or increasing the level of business. Cloud Accounting technology brings advantages that support the improvement of the relationship client-accountant, through the following two interface components:

- The customer-oriented interface of the Cloud Accounting software simplifies the way of approaching the data, all the data necessary at a given moment for the analysis of the financial status being arranged in the form of dashboards in an easy to follow format. They become very easy to check, for example, the bank account, the balance of receivables and debts from the current month or from a previous month.
- Single user interface - no matter who is accessing certain information and from which location, the same data is available. This makes the interaction between different users much more flexible and efficient, as they can track the same information in real time.

At the macroeconomic level, Cloud Accounting enables the financial service provider to provide higher value-added services than to affect the time spent collecting data. We believe that a thorough knowledge of the clients' business puts accountants in a position to act as true business advisors. The main difference and the most widespread advantage of cloud accounting, compared to accounting in a classic technology is its ease of access. Thanks to internet-connected cloud accounting, users can access the software from any location with internet access and from any device with internet browsing functions. This can be a major advantage for business owners and accountants. Traditionally, accountants receive information from their clients only once a week, if not

monthly. The information is often transported in batches via physical files or USB drives. The accountant has access to transaction information a few days after it has taken place. Incorrect records and inadmissible transactions will not be noticed by the accounting officer until long after the transaction has taken place. With this new degree of access, accountants can now have instant access to customer records. Questions can be answered at any time, errors can be detected earlier, and timely entries and reports can be created.

Cloud accounting software also offers a great deal of convenience through its connectivity. The main focus has been on accessing cloud software via laptop, but many entities have mobile applications that connect to their browser-based counterpart. It is not easy to track business expenses on a trip. Instead of withholding receipts and transforming at the end of a trip, mobile apps will allow you to upload a picture of the receipt with the expense incurred. This way there is no difficulty in tracking the source document. These applications may not offer as many features as the browser-based version, but they still allow for easy accounting work on the go. Most applications (ie QuickBooks, NetSuite, and Xero) will allow the user to create and track estimates, invoices, expenses, and payments.

4.3. Eliminate duplicate information, prevent errors and increase data accuracy

Data accuracy is a key feature in financial management. Manual processing is prone to errors, time consuming and unjustifiably expensive. For example, an entity that extracts its data from one system to manually enter it into another system is at risk of entering the data incorrectly. Software as a Service (SaaS) based accounting systems have implemented controls that automatically identify duplicate records and can prevent other errors. For example, goods and services purchased or rented are automatically assigned to invoices received or payments made, and expenses are correctly recorded in the accounting period to which they relate.

4.4. Secure access, control and authorization

The most common concern among users or potential users of Cloud Computing technology is related to trust, security and privacy, issues that are frequently raised in the context of using Internet services and outsourcing. There is a general distrust of data outsourcing - especially if the data processing is beyond the control of the entity. The greatest attention in terms of security in accounting is given to the management of money and sensitive information, such as bank accounts (Beckham, 2010). For these reasons, Cloud application providers offer high levels of security. Web-based systems are actually just as or more secure and have equal or better internal controls than in-house software. Cloud technology includes strong authorization and authentication mechanisms and communications between the Cloud Computing provider and the client, as well as those between data centers can be encrypted (Data Protection Working Group established under Article 29, Opinion No. 05/2012 on Cloud Computing). Moreover, logging tools can detect possible attacks or vulnerabilities in the system.

5. Challenges in implementing Cloud Accounting technology

Although the benefits of Cloud Accounting technology are recognized at the entity level, the implementation of Cloud applications is quite slow due to the management's uncertainty regarding the control and ownership of information. According to a KPMG study (Lee, 2016), data security and confidentiality are among the main concerns of users regarding the use of cloud-based services. Security concerns are based on the fact that the confidential information of the entity is stored on a server that can be accessed via the

Internet and not on its own computer. In an interview with Intacct, Bob Scott, executive editor of *The Progressive Accountant*, said that Cloud Accounting applications are changing the way people work, but at the same time this shift is quite slow as accountants are generally more focused on a business perspective than a technological one. Thus, they must look at this system of work as an opportunity, understand the changes and how they can benefit from these applications. According to the study, the adoption rate of Cloud in Romanian entities is increasing, only 39% of the interviewed entities not using Cloud Computing in any form (public or private). Moreover, the study shows that in 4 years, by 2020, all large entities will use at least one form of Cloud Computing. In terms of the notoriety of cloud providers in Romania, Microsoft is the brand most often mentioned by study participants, followed by Amazon, Google, VMWare, IBM, Cisco, HP, Oracle and Apple. However, we believe that there is still a reluctance on the part of the entities regarding Cloud Computing. The reason is the lack of full awareness of the concept of Cloud, which many consider to be a major change that requires significant resources, thus becoming reluctant to this technology and content with the current state of affairs, as stated by Michal Golebiewski, the marketing director of Microsoft Romania, in an interview given to *Wall-Street* magazine. The main concern of accountants for the transfer to a new system is justifiable. A successful business must be efficient and knowledgeable about what it offers. The transfer to a new system requires not only time for implementation but also for employees to become familiar with the software. The impact and complexity of moving to the cloud is related to the software, size, business style and technological experience of the entity trying to implement it. The size and culture of the business will also have an impact on ease of integration. Larger businesses are harder to initially transfer to the cloud because there are many more people to train on the new system and many more files to transfer. If there is a substantial inventory and a large amount of transactional data it would mean that more files would have to be converted or even manually entered into the new system. If a business relies on an interwoven software system, cloud system integration can be difficult and time consuming. The entities that are best suited for a rapid transition to the cloud are the small, young, technologically experienced (*"Moving your Practice to the Cloud"*, 2017). They will have fewer people to be trained, will have less financial information to transfer and will be more comfortable and familiar with how the new technology works.

6. Data security in the use of Cloud technology in accounting

Not having the physical possession of the entity's data and the thought of data security breaches are concerns that make managers uneasy. However, what entities do not notice is that cloud service providers often offer security measures that are superior to the security that many entities have on their internal servers. To the detriment of security issues, many people have no problem using a cloud service known as mobile banking. An internet connection is all that is needed to access your bank account and personal financial information. Despite the amount of personal data that can be accessed via the internet, consumers use mobile banking because they trust the cloud security that the bank has implemented. The banking and financial industries are some of the most regulated when it comes to security, due to the amount of sensitive and private data they manage.

The technology that provides some of the best security for your data is encryption. Encryption is the use of algorithms to turn data into a cipher that can only be decoded by the appropriate key. By using Secure Sockets Layer (SSL) and Transport Layer Security (TLS), data can be encrypted while being transported over a secure connection between client and server computers (Laudon, 2018). The aspect that makes the encryption of the bank level ideal is its resistance. Banks are regulated to have Standard Encryption

Advanced (AES), a popular encryption algorithm, 128-bit or larger encryption. When it comes to bits in encryption, it is the number of bits that are the key to encryption and decryption. Simply put, the more bits, the longer and better the key.

Similar to banks, cloud accounting providers use a high level of encryption. The servers in the data centers of cloud-based accounting providers offer a minimum of 128-bit encryption, and some offer encryption of up to 256 bits. By making additional use of firewalls and intrusion detection software, providers ensure that data is secure because it is transported to data centers and stored indoors. Although encryption provides safeguards against direct access through hacking, such measures are unnecessary if a hacker guesses or gains access to the user's login information (i.e., user ID and password). Fortunately, security measures have also been implemented.

When signing a contract with a cloud service provider, it is important to know the controls that the application provider has put in place to protect your data. The American Institute of Certified Public Accountants (AICPA) has created a service that CPAs can provide to clients who certify the controls applied by an application. These documents are known as Service Organization Reports (SOCs). There are three types of SOC reports that CPAs can provide, SOC 2 and 3 refer to security checks. The SOC 2 report is intended for users who have a comprehensive understanding of internal controls on security, availability, processing integrity, confidentiality and confidentiality. The SOC 3 report, also known as the SysTrust report, is a more general SOC 2 report and is intended for users who do not have the sophistication to understand the SOC 2 report. Users can request these forms from service providers to verify the controls that operations perform. -implemented to protect their data. Some cloud providers provide dedicated web pages where users can access and / or request these security-related SOC reports. The CPA's views on SOC reports generally state that the security provided by the cloud provider is "... likely to meet the security and reporting needs of most users of cloud services" ("AICPA Cloud Computing Controls andorsed Security Group"), "2013, paragraph 4) of the Cloud Security Alliance.

When thinking about cloud computing and security, most people worry about information security on the web. They worry about data security and the online security measures that are being implemented to protect it. One safety factor that seems forgotten is physical safety. While most people worry about hackers, they sometimes forget about the physical dangers of their data. Not only does a business owner have to worry about accessing his data via the internet, but he also has to reflect on the protection and security that information is provided to them due to physical theft, loss and natural disasters.

Many entities are concerned about the lack of features offered by cloud computing providers. In our opinion, this concern is less valid as time goes on. As with any technology, the software is constantly updated and improved. Functions that were not present in one version of a software will find their way into the next version. Over the last decade, cloud accounting has continuously improved and is now comparable to desktop applications. To illustrate this, just take a look at the development and growth of QuickBooks Online (QBO). QBO was launched in 2001. A 2006 chart comparing all versions of QuickBooks (desktop and cloud services) showed that QBO was just a snippet of what QuickBooks desktop versions were. It did not have the ability to track inventory, only three users could use the service at a time, there were no customer or vendor tracking, you could not download banking and credit cards, and there was a limited ability to integrate QBO with other applications. The limitations of the first generation of QBOs led the American financial services company INTUIT to decide to build the next generation of QBOs starting in 2013, in order to solve these problems. The new version of QBO focused on providing higher levels of functionality, greater integration with other Intuit and third-

party software programs, and a more streamlined user interface across all QuickBooks products (“Press Releases,” 2013). As improvements continued, the online version of QuickBooks became more comparable to desktop versions (Table 1):

Table 1. Comparative situation of QuickBooks Online – Desktop products

 Compare QuickBooks® Products	Online			Desktop		
	EasyStart	Essentials	Plus	Pro	Premier	Enterprise Solutions
	\$13.00/mo	\$27.00/mo	\$40.00/mo	\$52.00/mo	\$136.00/mo	\$300.00/mo
Save time tracking finances						
Number of users included in the price ¹ (additional charges may apply)	1	3	5	3	4	30
Easily print cheques & track expenses	✓	✓	✓	✓	✓	✓
Track sales, sales taxes & customer payments	✓	✓	✓	✓	✓	✓
Manage payroll & payroll taxes ² (sold separately)	✓	✓	✓	✓	✓	✓
Accept credit card payments right in QuickBooks ³				✓	✓	✓
Invoice multiple customers at once with Batch Invoicing				✓	✓	✓
Track time and expenses to bill clients			✓	✓	✓	✓
Access to product experts and unlimited technical support ⁴	✓	✓	✓	✓	✓	✓
Get access to the latest version (when and if updates become available)	✓	✓	✓	✓	✓	✓
Online backup and protection of your QuickBooks data	✓	✓	✓			
Work in two company files at the same time ⁵						✓
Get the insights to make better decisions						
One-click financial, sales & tax reports	✓	40+	65+	100+	150+ Industry	150+ Industry
Import data from Excel, Google contacts, and prior QuickBooks versions	✓	Excel & QuickBooks	Excel & QuickBooks	✓	✓	✓
Download or import your bank & credit transactions into QuickBooks ⁷	✓	✓	✓	✓	✓	✓
Track inventory, set re-order points & create purchase orders			✓	✓	✓	✓
Track international sales & expenses in multiple currencies			✓	✓	✓	✓
Easily create a business plan					✓	✓
Track your balance sheet by class			✓		✓	✓
Forecast sales & expenses			✓		✓	✓
Industry-specific reports, sample files, menus & chart of accounts	Limited	Limited	Limited		✓	✓
Consolidate reports from multiple company files ⁸						✓
Create custom reports with ODBC-compliant applications using a direct connection to the QuickBooks database ⁹						✓
Manage inventory using bin location tracking, barcode scanning, serial number, or lot tracking, FIFO costing, and multiple location inventory ¹⁰			FIFO			With Advanced Inventory
Control, customize, and automate your pricing right inside QuickBooks ¹⁰						With Advanced Inventory

This is how the comparison between QuickBooks Online Plus and QuickBooks Premier looks like. Both models are the top of the line applications for cloud-based and desktop applications, respectively. According to the Intuit product comparison chart, QBO Plus lacks only three of the features that QuickBooks Premier has and is limited to three others. The three features that are completely missing are forecast creation, inventory reorganization point management, and customizable inventory reports. The three limitations are given by the number of activity-specific reports that QBO Plus offers, the fact that QBO Plus can only import data from Excel and QuickBooks, and that QBO Plus has 65+ reports compared to QuickBooks Premier's 150+ reports. However, QBO Plus offers automatic online backup, multi-user access and remote access that Premier does not offer. Although the chart on Intuit's website does not provide all the differences between the two software products, it does provide a reasonable overview of the functions for comparison purposes. Intuit has made significant progress in generating QBOs as the primary option for QuickBooks accountants. We believe that Intuit, as with many other developers of cloud accounting applications, is confident in the developments made with cloud solutions, aiming (and succeeding in large part) for the cloud solution to be comparable to desktop applications.

7. Conclusions

Cloud accounting software has come a long way since its inception. A software solution that was seen a few years ago as inferior to its desktop counterpart has taken big steps to be a desktop application replacement solution. Although there are still issues with cloud computing, most of them have been addressed in recent years. Cloud accounting can be seen as a secure option, both digitally and physically, that offers cost savings, convenience and a user-friendly interface. We believe that the entities that can benefit the most from cloud accounting software, at this moment, are the small and medium ones. We also believe that most cloud solutions on the market today do not have the depth of inventory systems and the specific and necessary characteristics for these solutions to excel in a larger, inventory-based entity, or in entities that require specific solutions. fields of activity. The users who receive the most benefits are service-based or limited inventory entities that are looking for convenient and affordable accounting software. With the new technology, an accountant can provide real-time reporting and business profitability consulting services, cost analysis, or decision support. Accounting processes are to be highly automated, supporting transparent information, which makes professional accountants reconsider their position and perceive analysis and consulting as the basis of the role they play.

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THE CORRELATION BETWEEN EXTERNAL STIMULATION AND THE DECISION TO CHOOSE A SUPPLY OF WIDE PRODUCT CONSUMPTION BY CONSUMERS

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Abstract: Considering that the proposed model is based on the knowledge of external stimuli, which can be key factors in the design of a message and which can thus influence the consumers' decision regarding the choice of a product, determining the sociological variables that can contribute to the modification in favorable sense of the buying behavior of consumers was conducted an exploratory research at the level of consumers of consumer products in Prahova County.

Key-words: external stimuli, decision, choice, product assortment, consumer.

JEL Classification: B41, D47, M31, O47.

1. Timelines of the research

By conducting a direct research, the current information requirement was ensured. Through the formulated central objectives, the investigated issue was investigated in detail.

2. The purpose and objectives in research

The main objectives that have resulted from the research purpose are the extent to which the price, quality, packaging, brand and, including, the family influence the consumers' decision to choose a product assortment.

3. Research methodology and main working tools

3.1. Defining the purpose, objectives, hypotheses and variables of the research

The purpose of the research was aimed at two directions, namely:

1. identification of the main external stimuli underlying the choice of a product range by consumers and which can thus be key factors in designing a communication message;

2. determining the sociological variables that can contribute to the favorable change in the buying behavior of consumers.

Considering the first purpose of the research, which consisted in identifying the main external stimuli that underlie the choice of a product range by consumers and which can thus be key factors in designing a communication message, a series of hypotheses have been established, depending on the variables considered in the research. The price represents the result of the evaluation process of goods and services, existing on a given market, in order to satisfy the interests of the participants in the exchange process.

Hypothesis 1a: Most consumers consider price as a factor that largely influences their decision to choose a product assortment.

Hypothesis 1b: There is a statistically significant correlation between the extent to which the price influences the consumers' decision to choose a product assortment and the advertising through the media, respectively by television, radio, print media, etc. Quality refers to the extent to which a product meets the specific needs of a consumer.

Hypothesis 2a: Most consumers consider quality as a factor that greatly influences their decision to choose a product assortment.

Hypothesis 2b: There is a statistically significant correlation between the extent to which the quality influences the consumers' decision to choose a product assortment and

the various promotional campaigns, such as contests, raffles with prizes in cash or gifts, free product tastings, etc. Packaging is a coordinated system of preparing the goods for handling them in safe, efficient and operative conditions, transport, distribution, storage, retail, consumption or reuse, all combined with maximizing the value of consumption, sales and therefore profit.

Hypothesis 3a: Most consumers value packaging as a factor that does not play an important role in their decision to choose a product assortment.

Hypothesis 3b: There is a statistically significant correlation between the role played by the packaging in the decision of the consumers to choose a product assortment and the websites of the companies in the related field. The mark represents a name, term, sign, symbol, design or a combination thereof, designed to identify the goods or services of a seller or group of sellers and to differentiate them from those of competitors.

Hypothesis 4a: Most consumers consider brand as a factor that greatly influences their decision to choose a product range.

Hypothesis 4b: There is a statistically significant correlation between the extent to which the brand influences the consumers' decision to choose a product assortment and advertising through media, respectively television, radio, print media, etc. Regarding the second purpose of the research, which consisted in determining the sociological variables that can contribute to the favorable change in the buying behavior of consumers, a series of hypotheses were also established according to the variables, considered in the research. The family is part of a household consisting of two or more persons living together. The family is the most influential factor in purchasing decisions.

Hypothesis 5a: Most consumers consider the family as a factor that greatly influences their decision to choose and purchase a product range.

Hypothesis 5b: There is a statistically significant correlation between the extent to which family members (parents, siblings, sisters, spouses, wives, etc.) influence consumers' choice of a product range and the age category in which they fall.

4. Choosing the sources of information

The choice of sources of information was based on the objectives identified in the previous phase. Thus, external and primary data sources were used (data obtained directly from the company supplying consumer products, as well as by INS).

5. Research

Analysis of the act of purchase, of the concepts of buyer, consumer, purchase behavior, consumer behavior, of the fundamental theories regarding the consumer behavior, the factors that influence the decision of purchase, as well as the relation between the consumer and the brand (like many other factors) are essential elements in understanding the buyers' decision to purchase a certain product range. Consumption occupies a central position in the mechanism of economic life, having a close connection with the production of goods and the provision of the service and playing an active, energizing role on them. Regardless of the importance given to it in the different types of companies (depending on the type of economy), the role or within any economy is irreplaceable. It can be said that the term "consumption" in all its complexity represents a faithful mirror of a society, reflecting the various social stratifications and differentiations, contradictions, place and role of socio-professional groups and categories in society. Also, "consumer behavior" reflects to some extent the expression of the level of education, culture and civilization but also of the quality of social life of a community.

This is why approaching consumption and consumption behavior from a psychosocial perspective is particularly important. The role of consumption, and implicitly

the need for its study, is even more evident from the multitude of functions it exercises in society.

This is why the quality of consumer has a special relevance, being in fact the final element, but at the same time the triggering element of the decision to buy or not to buy.

Therefore, the concept of consumer behavior is more complex, for at least two reasons:

- 1) it is more varied, being influenced by a number of factors (personal, psychological, cultural, social, situational, etc.);
- 2) he is dynamic (knowing a whole series of transformations in a given period of time).

Summarizing, purchasing behavior (which may or may not accompany consumer behavior) reflects people's behavior in the case of buying or not buying, or delaying the satisfaction of a job; while the consumption behavior mirrors the behavior of people in the case of the consumption of material goods / services. Buying not only means paying, but also choosing. And to choose means ultimately to decide. The needs that determine a person to buy can be utilitarian - which determines the objective, functional characteristics of the product. The buyer is perceived in the decision process as the solver of a problem to which he must answer as correctly as possible: what to buy? how much to buy? where to buy? when to buy? how to buy? etc. The evaluation of the possible variants is the moment when the consumer removes certain marks from his list, after a previous analysis of them. Finally, only one brand will be bought, the rest will be rejected. The attributes according to which the consumers compare the different variants are known under the title of evaluation criteria. These can be: price, number of functional options, brand reputation, availability, etc. The purchase can be planned (both the product and the brand are chosen before the store visit), partially planned (there is an intention to buy a particular product, but the choice of the brand is delayed until the store is visited), or unplanned (both items are chosen in the store). Market studies show that most decisions, especially for consumer goods, are made in the store, in front of the shelf.

6. Method

The research closely followed the relationship between the demand of the products and the offer of the analyzed company, which determined a ratio of forces on the market.

Thus, the ratio between demand (C) and supply (O) determines the ratio of market forces (R_f):

$$R_f = \frac{\text{Offer}(O)}{\text{Application}(C)} \quad (4)$$

It is known that the market forces report attests to the market situation at one point. There can be three situations for R_f, namely:

- a) R_f < 1, supply is lower than demand. In this case the absorption state is manifested and the market is a sales market;
- b) R_f = 1, (offer = application) is the equilibrium state of the market;
- c) R_f > 1, (offer > application) the market is characterized by the abundance of products / services, thus asserting the buyers market. The saturation rate (R_s) indicator of the market allows the assessment of the potential of developing the sales of a product on the reference market.

$$R_s = \frac{Pa(i)}{Pp(i)} * 100 [\%] \quad (5)$$

unde:

- Pa (i) is the current product market "i" in volume or monetary units;
- Pp (i) is the potential market for the product "i" in volume or monetary units.

The Penetration Rate (R_p) indicator of the market allows to evaluate the possibilities of increasing the sales of a company.

$$R_p(j) = \frac{Pa(j)}{Pp(j)} * 100 [\%] \quad (6)$$

in which:

- $R_p(j)$ is the penetration rate (diffusion) of the company's product "j" on the reference market;
- $Pa(j)$ the current market of the company "j" in volume or monetary units;
- $Pp(i)$ the potential product market "i" in volume or in monetary units.

We mention that the comparative analysis that aimed at the situation of sales of a category of consumer product has been made for the last two years, according to the graph1:

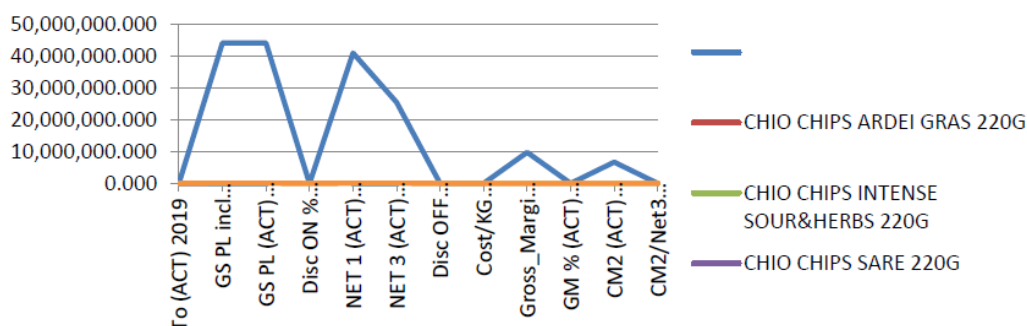


Chart 1. Comparative evolution of sales in 2018, respectively, in 2019

Large increases were also recorded among households in large localities, with over 150 thousand inhabitants. Modern trade formats remain the main channel for home shopping.

Also, considering the external determinants evaluated in 2018 compared to 2019, I clearly prove that sales had a positive evolution in 2019, increasing compared to 2018, according to graph 2:

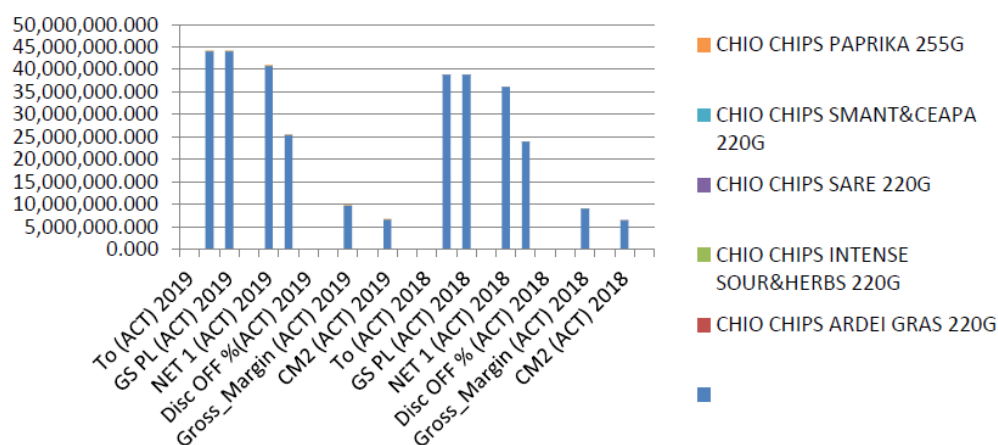
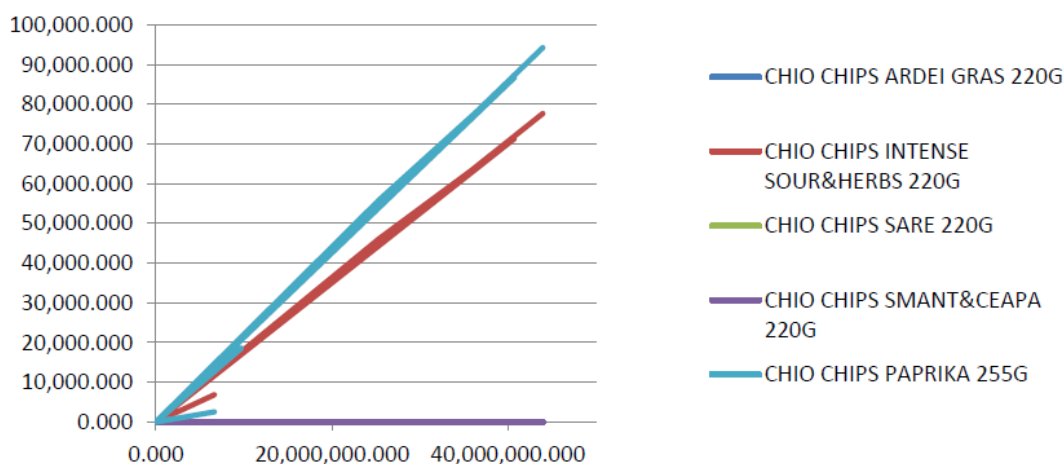


Chart 2. Sales evolution in 2019 compared to 2018

Given the current, sensitive situation, in fact, where we are, the analysis followed the evolution of sales and in the first quarter of this year, 2020 and, according to graph 3, as expected, the evolution of sales of consumer products exploded.



Graph 3. Evolution of categories in the first quarter of 2020 compared to last year

It is known that the model of economic growth of our country is based on consumption. Moreover, consumption is mainly oriented towards food.

7. Conclusions

As a result of the qualitative research carried out, the proposed objectives have been fulfilled, so we can say that they have been identified as main external stimuli that can be key factors in designing a communication message and which can thus influence the consumers' decision to choose and buy the of a product - price, quality, brand and packaging. Also, it is a certainty that the market is driven and influenced by the consumer.

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METHODOLOGY OF FINANCING HIGHER EDUCATION IN THE REPUBLIC OF MOLDOVA

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Abstract: *The authors of this article deals with the long process of searching for funding higher education reform in Moldova. From the 90s of the century XX, when the Republic of Moldavia became independent, and until 2019, higher education in the Republic of Moldova has been funded by the "egalitarianism" socialist, without taking into account the difference between the curricula of higher education institutions. In 2010 he published the monograph "Methods of financing public education"¹ that including it investigates the mechanism of financing of higher education, criticizing it and recommends the implementation of European practices and especially Romania, on the financing of higher education, taking into account the complexity of study programs. The central administration empowered with the function of managing higher education did not react to the researchers' recommendations. In 2019, the Ministry of Education, Culture and Research (MECR) began studying the New Methodology on financing higher education in Moldova based on the standard **cost per student equivalent** to the support of the World Bank and Romanian experts. This New Methodology for financing higher education was approved in 2020 and entered into force starting with the 2020-2021 years of study. The new funding mechanism takes into account the complexity of study programs, which correspond to a certain significant adjustment coefficient. We believe that the new methodology of higher education financing favors deepening performance and competency-based learning.*

¹Manole Tatiana, Methodology of financing public education: theory and practice: /Tatiana Manole; Technical University of Moldova. – Ch.,: " "Tehnica-Info" Publishing House" SRL, 2010 (Printing Iași). – 340 p. ISBN 978-9975-63-309-3.

Keywords: *standard cost per equivalent student, the complexity of the programs, coefficient of adjustment, standard financing, compensatory financing, complementary funding, university autonomy.*

JEL Classification: *I22, I23, G34.*

1. Introduction

Learning is a very long process, a process carried out constantly by the individual, a process that takes place throughout a person's life. But this process requires costs for its maintenance. These costs are capital investments in the human being. This investment of financial resources is an investment in *human capital*.

Human capital comprises educational capital, that is, those abilities acquired by individuals as a result of school education and not only, and biological capital, respectively those physical abilities of individuals, which are reflected in their state of health. As an economic category, human capital can be analyzed as an estimate of a person's ability to produce income through work (Becker, 2010, p.32).

Education and training are the most important investments in human capital. In this respect, G.S.Becker made an overview of investment in human capital analysis covering the following phenomena (Becker, 1997, p.32): a) *earnings usually increase with age at a decreasing rate. Both the growth rate and the delay rate tend to be positively correlated with the qualification level;* b) *unemployment rates tend to be inversely correlated with the*

level of qualification; c) in relation to employees, companies in less developed countries seem to be more "paternalistic" than those in developed countries; d) younger people change jobs more often and benefit from more schooling and on-the-job training than older people; e) earnings distribution is skewed positive, especially for professionals and other skilled workers; f) more capable people benefit from more education and other types of vocational training than others; g) the division of labor is limited by the size of the market; h) the typical investor in human capital is more impetuous and thus is more likely to make a mistake compared to the typical investor in tangible capital.

Becker's analysis of human capital refers, in fact, to the analysis of educational capital, highlighting the costs associated with investment in training, as well as the relationship between school and post-school investments. By default, individual income will increase depending on the level of educational attainment.

Thus, educational and health expenditures are considered as investments in order to increase labor productivity and, implicitly, economic growth. *The formation and development of human capital are directly dependent on budgetary-fiscal policies, developed and promoted by governments, because the public budget is the main source of funding for public education.*

Basic content. 1. Strategy of the Government of the Republic of Moldova on the sustainable development of public education.

Education policy in the Republic of Moldova is aimed at ensuring the quality of education, and the education system of the Republic of Moldova, in accordance with the Education Strategy 2020, is accessible to all citizens, provides quality education, relevant to society and economy, in conditions of economic efficiency. The strategic vision of the Republic of Moldova includes the following components of the education system (Education Development Strategy for 2014-2020 "Education 2020"): **a) beneficiaries of the educational system who demonstrate skills necessary for personal, social and professional growth and development throughout life; b) educational process focused on the educational needs of learners and a relevant curriculum, connected to the demand of the labor market; c) fair evaluation system, focused on measuring skills relevant to the life of the individual and the labor market; d) teachers rewarded according to professional performance, able to design learning activities focused on the individual educational needs of the beneficiaries; e) professional managerial staff, able to efficiently manage educational institutions; f) a network of educational institutions efficiently dimensioned, in accordance with the demographic and social tendencies corresponding qualitatively to the current standards; g) infrastructure and an educational environment friendly to the learner; h) a modern, flexible and functional institutional framework that contributes to ensuring the quality of education; i) sustainable academic and social partnerships, focused on common long-term benefits.**

In modern society, educational policies aim to ensure excellence in all its aspects, at all levels and levels of the education system, by promoting the quality assurance mechanisms of the study programs and of the institutions in which they are offered. The quality assurance mechanisms are meant to give the beneficiaries and the general public the confidence that the society benefits from quality educational services, which bring economic and social progress for all tax-paying citizens..

The realization of the strategic directions of the Government regarding the sustainable development of education requires the reform of the financing mechanism in general for education in the Republic of Moldova and especially for higher education. If since 2014 pre-university education is funded on the basis of the weighted standard cost per student, then the issue of financing higher education has remained unreformed. Ministry of Education has gone through a long process of reforming efforts to finance

higher education in the Republic of Moldova. From the 90s of the century. XX, since the Republic of Moldova became independent, and until 2019, higher education in the Republic of Moldova was funded according to the principle of socialist "Egalitarianism", not taking into account the difference between the curricula of higher education institutions. In 2010 was published the monograph "Methodology of financing public education" which also investigates the mechanism of financing higher education, criticizing it and recommending the implementation of European practices and especially Romania, on how to finance higher education, taking into account the complexity of study programs. The central administration empowered with the function of managing higher education did not react to the researchers' recommendations. In 2019, the Ministry of Education, Culture and Research (MECR) began studying the New Methodology on financing higher education in Moldova based on the *standard cost per student equivalent* to the support of the World Bank and Romanian experts. This New Methodology for financing higher education was approved in 2020 and entered into force starting with the 2020-2021 years of study. The new funding mechanism takes into account the complexity of study programs, which correspond to a certain significant adjustment coefficient. We believe that the new methodology of higher education financing favors deepening performance and competency-based learning. We mention that the training of a specialist in higher institutions requires costs.

2. The average expenditure to finance a pupil / student

Expenditure on education funding is, in fact, investment in human capital. Through investments in human capital, the country ensures that it will have a qualitative generation in the future, which will be included in society, bringing a considerable increase to the economic and social development of the country.

The main source of funding for higher public education is the state budget. For example, the average expenditures allocated from the state budget of the Republic of Moldova for 2018 on higher education: license, masters, doctorate, of higher institutions subordinated to the Ministry of Education, Culture and Research (MECR), are presented as follows:

Table No. 1. Budgetary allocations for financing higher education, cycle I (license) for the budget year 2018

Name of indicators	Unit of measurement	Costs and expenses from allocations transferred from the budget			
		Approved annually	Specified annually	Specified During the management period	Effective during the management period
A	1	2	3	4	5
Costs and expenses, for the level of higher education, step - <i>Higher undergraduate studies</i> , total. including scholarships	Thousands of lei	413 931,00	420 950,60	420 950,60	441 088,60
Costs and expenses, for the level of higher education, step - " <i>Higher bachelor's degree</i> ", total. No scholarships	Thousands of lei	350 624,24	357 641,08	357 651,73	379 752,98
Average number of students (cycle I)	pers.	12 098	12 098	11 954	11 966
The average cost of a student (cycle I) No scholarships	Cost/ stud., lei	28 982	29 562	29 919	31 736

The average cost of a student (cycle I). Including scholarships	Cost/ stud., lei	34 215	34 795	35 214	36 862
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Source: Processed, calculated and elaborated by the authors based on the information from MECR regarding the financing of higher education from the state budget for 2018. Information on the expenses of self-managed educational institutions on January 1, 2019 (quarterly, annual). Report no. 2 Approved by order of the Ministry of Finance of the Republic of Moldova.

Note: From the information given in the table above, the MECC indicates the budgetary allocations only for the higher institutions of the MECR, excluding the branch higher education institutions.

At the same time, we mention that the average annual cost of a student (cycle I), including scholarships, actually, during the management period, is 36,862 lei, increasing by 2,647 lei, or by 7.74 percentage points.

Table No. 1 presents budget allocations for financing higher education level I - license for the budget year 2018. We note that the amount of costs and expenses for the level of higher education, the stage - "Higher bachelor's degree", total, including scholarships actually during the management period is 441,088.60 thousand lei, increasing compared to the approved amount (413,931.00) annually from the state budget for 2018. This increase in the absolute amount makes up 27,157.6 thousand lei, or by 106.56 percentage points (6.56%).

Table No. 2. Budgetary allocations for financing higher education, cycle II (master) for the budget year 2018

Name of indicators	Unit of measurement	Costs and expenses from allocations transferred from the budget			
		Approved annually	Specified annually	Specified During the management period	Effective during the management period
A	1	2	3	4	5
Costs and expenses for the level of higher education, stage - "Master's higher education", total. Including scholarships	Thousands of lei	96 220,60	99 074,20	99 074,20	97 828,70
Costs and expenses for the level of higher education, stage - "Master's higher education", total. No scholarships	Thousands of lei	66 398,28	70 194,52	0 194,52	69 783,05
Average number of students (cycle II)	pers.	4 909,30	4 638,20	4 638,20	4 621,70
Average cost of a student (cycle II) No scholarships	Cost/ student, lei	13 525	15 134	15 134	15 099
Average cost of a student (cycle II) Including scholarships	Cost/ stud., lei	19 599,65	21 360,48	21 360,48	21 167,25

Source: Processed, calculated and elaborated by the authors based on the information from MECR regarding the financing of higher education from the state budget for 2018. (Information on the expenditures of self-managed educational institutions on January 1, 2019 (quarterly, annual). Report no. 2 Approved by order of the Ministry of Finance of the Republic of Moldova).NOTE¹

The table above presents budgetary allocations for financing higher education of level II - master for the budget year 2018. We note that the amount, costs and expenses, for the level of higher education, the step - "Master's higher education", total, including scholarships, actually during the management period is 97,828.70 thousand lei, increasing compared to the approved amount (96 220.60 thousand lei) annually from the state budget for 2018. This increase in absolute amount amounts to 1,608.1 thousand lei, or 101.67 percentage points (1.67%).

At the same time, we mention that the average annual cost of a student (cycle II), including scholarships, actually during the management period is 21,167.25 lei, increasing by 1,567.6 lei, or by 107.99 percentage points (about 8 %). It is also worth mentioning that, despite the reduction in the number of students, the costs for a student are increasing.

Higher education also includes the third cycle - the doctoral student. "Higher doctoral studies" are also funded from state budget allocations. In the table below we present the costs and budgetary expenditures for this stage of studies.

Table No. 3. Budgetary allocations for financing higher education, cycle III (doctorate) for the budget year 2018

Name of indicators	Unit of measurement	Costs and expenses from allocations transferred from the budget			
		Approved annually	Specified annually	Specified During the management period	Efectiv perioada gestiune pe de
A	1	2	3	4	5
Costs and expenses, for the level of higher education, the stage - "Higher doctoral studies", total. Including scholarships	Thousands of lei	10 025,1	14 206,3	13 985,2	12 493,7
Costs and expenses, for the level of higher education, the stage - "Higher doctoral studies", total. No scholarships	Thousands of lei	7 641,61	11 345,62	11 124,47	9 898,79
Average number of students (cycle III)	pers.	526,3	650,0	639,4	638,9
Average cost of a student (cycle III) No scholarships	Cost/ stud., lei	14 519,5	17 454,8	17 398,3	15 493,5

¹ Note:: The amount of budget allocations for study degrees are expressed in Moldovan lei (MDL). Although, the information is presented for the budget year 2018, we present the exchange rate of the leu against the Euro and the US dollar on April 13, 2021, so: 1 Euro = 21,31 MDL, 1\$ SUA = 17,89 MDL.

Name of indicators	Unit of measurement	Costs and expenses from allocations transferred from the budget			
		Approved annually	Specified annually	Specified During the management period	Efectiv perioada gestiune
Average cost of a student (cycle III) Including scholarships	Cost/ stud., lei	19 048,26	21 855,84	21 872,38	19 555,02

Source: Processed, calculated and elaborated by the authors based on the information from MECC regarding the financing of higher education from the state budget for 2018.

Information on the expenses of self-managed educational institutions on January 1, 2019 (quarterly, annual). Report no. 2 Approved by order of the Ministry of Finance of the Republic of Moldova.

The table above presents budget allocations for financing higher education of level III - doctorate for the budget year 2018. We notice that the amount - costs and expenses, for the level of higher education, the stage - "Higher doctoral studies", total, including scholarships, actually during the management period is 12,493.7 thousand lei, increasing compared to the approved amount (10 025.1 thousand lei) annually from the state budget for 2018. This increase in absolute amount makes 2,468.6 thousand lei, or 124.62 percentage points (24.6%).

At the same time, we mention that the average annual cost of a student (cycle III), Including scholarships, actually during the management period, is 19,555.02 lei, increasing by 506.76 lei, or by 102.66 percentage points (2.6 %). As a result of the analysis of higher education funding, by cycles, we can mention that the budgetary allocations for higher education funding, cycle I (bachelor), cycle II (master) and cycle III (doctorate) are increasing to the actual funding compared to the one approved to .bugetar2018

3. The new formula for financing higher education in Moldova

The strategy for financing higher education is, in terms of university autonomy, one of the main tools for implementing government policies on national education. Both the funds allocated from the state budget and those extra-budgetary or from other sources are, according to the New Methodology, the own revenues of the universities. The process of reforming research, regarding the financing of higher education, taking into account the complexity of the study programs, lasted. Finally, the Government Decision of 10.06.2020 approved the Methodology of budgetary financing of public higher education institutions . The budget financing methodology of public higher education institutions establishes the allocation method for public higher education institutions of standard funding, based on *standard cost per student* and adjustment coefficients, associated with the degree of complexity of the study programs from the undergraduate and master's degree cycles, *compensatory funding* to support performance and complementary funding to modernize the material and teaching base of the institution.¹

The example shown in table no. 1 presents the financing of higher education for the period until the introduction of the New Methodology, 2018. In this case, some higher institutions were at a loss. The Ministry of Education, Culture and Research (MECR) of the Republic of Moldova has developed the Action Plan which provides, in particular, for standard budgetary financing, compensatory financing and complementary financing; concluding contracts with public higher education institutions and implementing /

¹ IBIDEM

piloting this Methodology.

We mention that until 2019, public higher education in the Republic of Moldova, regardless of the complexity of student training specialties, was based on the principle of "egalitarianism".

Only in 2018 the Government of the Republic of Moldova together with the Ministry of Education, Culture and Research raised the issue of reforming the financing system of higher education institutions.

The financing of these institutions was expected to be based on the complexity of the study programs, based on a significant adjustment coefficient. On the basis of this reform, when financing higher institutions, 3 basic components are taken into account, thus making a distinction between funding levels: I. Standard funding (core funding) for teaching and learning, which depends on the number of students funded from the state budget. Standard funding includes: a) expenses for the remuneration of the scientific-didactic, scientific, didactic and auxiliary didactic staff, of the research staff involved in the development of the study programs; compulsory social and health insurance contributions; b) expenses for the acquisition of goods, services and works necessary to ensure the development of the educational / scientific research process; c) procurement of fixed assets for educational purposes and university scientific research. Standard funding, based on standard cost per equivalent student and adjustment coefficients, associated with the degree of complexity of study programs in undergraduate and master's degree cycles - 75% of budget allocations for budget funding of public educational institutions.

II. Compensatory (performance) funding for the development and stimulation of excellence in public higher education institutions. Compensatory (performance) financing involves the formation of the respective budget, which is based on a set of performance indicators, which will refer to four distinct directions: the teaching-learning process; scientific research; internationalization; social orientation. Compensatory funding to support performance in public higher education institutions - 20% of the budget allocations for budgetary funding of public higher education institutions.

The allocation of funds for performance financing is based on the criteria and indicators approved annually by the MECR.

III. Complementary financing (Reserve Fund), which represents the amount allocated to finance special situations, which cannot be integrated into the financing formula. This fund remains at the disposal of the Ministry of Education, Culture and Research and the line ministries. Allowances for standard funding and compensatory funding will be considered own revenues and will be used by institutions under the conditions of university autonomy, in order to achieve the objectives of education and university scientific research. Complementary financing for the modernization of the material and didactic base - 5% of the budgetary allocations for the budgetary financing of the higher public institutions.

The allocations established for standard funding and compensatory funding, as well as the number of equivalent students per study cycles, financed from the state budget, are stipulated in the institutional contract of public higher education institutions. Institutional contracts for the allocation of budgetary funds are subject to regular control by the MECR and the line ministries.

As mentioned, the funding of higher education institutions on a standard cost per equivalent student basis is based on the adjustment coefficient corresponding to the complexity of the programs. Below is the list of adjustment coefficients corresponding to the groups of study programs, used to finance students enrolled in undergraduate and

master's studies.¹

Table 2. LIST

Adjustment coefficients corresponding to the groups of study programs, used to finance students enrolled in undergraduate and master's studies

Study program groups	Coefficient of adjustment dc,j	
	ciclul I, d1,j	ciclul II, d2,j
Group 1: Humanities, Social and Behavioral Sciences, Philology (except Languages and Translation and Interpreting), Journalism and Information (except Journalism and Media Processes; Editorial Activity), Administrative Science, Economics, Law, Public Services , Educational Sciences (except Foreign Languages, Chemistry, Biology, Physics, Astronomy, Computer Science, Music, Dance, Fine Arts, Technology Education, Physical Education)	1,00	1,25 x d1,j
Group 2: Engineering and engineering activities, Information and communication technologies, Manufacturing and processing technologies, Chemical sciences, Biological sciences, Environmental sciences, Physical sciences, Mathematics and statistics, Educational sciences (with specialties Chemistry, Biology, Physics , Computer Science, Physical Education)	1,65	1,25 x d1,j
Group 3: Architecture and constructions (specialties in the field of vocational training Constructions and civil engineering), Architecture and constructions (with specialties in the field of vocational training Architecture and territorial development); Journalism and information (with the specialty Editorial activity), Philology (with the specialties Languages, Translation and interpretation), Agricultural sciences, Forestry, Sports sciences, Education sciences (with the specialties Foreign languages, Music, Dance, Plastic arts, Technological education)	1,75	1,25 x d1,j
Group 4: Health (except Dentistry), Veterinary Medicine	2,85	1,25 x d1,j
Group 5: Arts (except Academic Singing, Acting, Directing, Scenography, Choreography, Film and TV Directing, Film and TV Imaging), Health (specializing in Dentistry)	4,00	1,25 x d1,j
Group 6: Arts (specializing in Academic Singing, Acting, Directing, Scenography, Choreography, Film and TV Directing, Film and TV Imaging), Journalism and Information (specializing in Journalism and Media Processes).	6,00	1,25 x d1,j

Source: Annex. Budgetary financing methodology of public higher education institutions. Table 2.

The new methodology for financing public higher education stipulates that the budget allocations will be made according to the complexity of the study programs, which correspond to an adjustment coefficient. From our point of view, this adjustment coefficient will express the "standard cost per unit equivalent student".

¹ Annex. Budgetary financing methodology of public higher education institutions. Table 2.

The new formula for financing higher education is based on the principle "standard cost per unit equivalent student".

The budget allocations for standard funding, allocated to each public higher education institution for students enrolled in accordance with the state order for undergraduate and master's degree studies, are transferred to the institution based on its equivalent number of students.

The number of equivalent students of the university is determined by multiplying the physical number of students financed from its state budget with the adjustment coefficients corresponding to the forms of education and study programs by study cycles. The physical number of students financed from the state budget will be reported on October 1 of the previous budget year.

The financing of higher education, according to the "Methodology", is based on the formula "Standard for equivalent student." the number of equivalent students, financed from the state budget, is calculated for each public higher education institution and for each study cycle. The procedure has two stages:

for each public higher education institution i and for each study cycle c (license ($c=1$) and master ($c=2$)) the number is determined $NSE_{c,j}^i$ equivalent student group funding program j from all forms of education:

$$NSE_{c,j}^i = \sum_{t=1}^T f_t \times NS_{f_t,j}^i,$$

where

- $NS_{f_t,j}^i$ - the number of physical students from the study cycle c , the group of study programs j with the form of education f_t , enrolled in a public higher education institution i reported on 1 October of the previous budget year;
- f_t - the adjustment coefficient according to the form of education t (table 1 in the annex to this Methodology);
- T - total number of forms of education financed from the state budget in higher education in the Republic of Moldova (table 1 in the annex to this Methodology)

Conditional example:

At the higher education institution "University X", at the Faculty of Economics full-time, the first cycle "license" are 350 physical students (reference date October 1, 2018 and the year planned for funding is January 1, 2019).

f_t is the adjustment coefficient according to the form of education t .

In the examined case, the studies are in Romanian / Russian and the adjustment coefficient corresponds to them $f_t = 1,00$.

We determine the number $NSE_{c,j}^i = \sum_{t=1}^T f_t \times NS_{f_t,j}^i$ of equivalent students in the field of funding j by the formula:

$$NSE_{c,j}^i = \sum_{t=1}^T f_t \times NS_{f_t,j}^i$$

$NSE_{c,j}^i = \sum_{t=1}^T f_t \times NS_{f_t,j}^i \times f_t (1,00) = NSE_{c,j}^i = \sum_{t=1}^T f_t \times NS_{f_t,j}^i (350)$, 350 (number of equivalent student units).

The average cost of a student (cycle 1), including scholarships actually for the management period is according to data from MECC for 2018 36 862 lei.

Therefore, we multiply the average cost per student by the number of equivalent student units: 36 862 lei / cost.stud. \times 350 s.ech. = 12,901,700 lei (FB).

This amount constitutes the basic financing (FB) and makes up a share of 75-85% of the total financing.

And performance financing (FP) has a share of 20-13%.

The financing from the reserve fund (FR) has a share of 5-2%. (See Table 1 in

Annex 2 to the Methodology).

Note: Above the Basic Financing (FB) component, see the distribution of these expenses according to their economic content, ie by destination.

Budget allocations for performance funding will then be calculated.

a) The indicators for performance financing will refer to the following distinct directions of activity:

b) The teaching-learning process;

c) University scientific research / Artistic creation;

d) The dimension of internationalization;

e) Social orientation: scholarships from university funds, investments in dormitories, other infrastructure objects, ensuring internships.

Each performance indicator has a significant share of performance and the method of calculating them indicated in the Methodology.

Allowances for core funding and performance funding will be considered own revenue and will be used by institutions under the terms of university autonomy Reserve Fund (FR), which is the amount allocated to finance special situations, which cannot be integrated into the funding formula. This fund remains at the disposal of the Ministry of Education, Culture and Research and the line ministries.

4. Conclusions

Therefore, the strategy of sustainable financing of education, especially higher education, is aimed at developing and raising the quality of education, the transformation of education from the memorable to competence-based education.

As a result of the analysis of the new way of financing public higher education from the state budget, we find that it is a premiere for the Republic of Moldova. At the same time, the financing of higher education will be based on the complexity of the study programs, characterized by a distinct adjustment coefficient. This adjustment coefficient will be the basis for calculating the standard cost per unit equivalent student.

We believe that the New Methodology for financing higher education benefits from deepening performance and competence-based learning.

This new Methodology for financing higher education in the Republic of Moldova started in the academic year 2019-2020 and is, for the time being, piloted. MECC continues the work of improving the New Methodology.

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7. Metodologia de finanțare bugetară a instituțiilor publice de învățământ superior. Aprobata prin HG nr. 343/2020.
8. Anexă. Metodologia de finanțare bugetară a instituțiilor publice de învățământ superior. Tabelul 2.

ACCOUNTING POLICIES AND PROFESSIONAL JUDGMENT APPLICATION OF IFRS 16 "LEASING CONTRACTS"

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Abstract: IFRS 16 "Leases" is the result of the joint effort of the International Accounting Standards Board (IASB) by the US National Standards Standardizer, the Financial Accounting Standards Board (FASB), to improve financial reporting on leasing activities. The two accounting standards normators found that the reported information on operating leases was not transparent and the existence of different accounting models for operational and financial leases reduced comparability for users of financial statements. In addition, the different accounting of financial leasing from operational leasing 'provides opportunities to structure transactions to obtain a certain accounting result' (Basis for conclusions in IFRS 16, BC 3). In these circumstances, IAS 17 'Leasing' has been replaced by IFRS 16 'Leases' and applies from financial year 2019. IFRS 16 "Leases" makes significant changes to the accounting for the lessee's leases and the information to be disclosed in the notes to the financial statements. To facilitate its understanding and application, IFRS 16 "Leases" is accompanied by application guidance and illustrative examples. The Ministry of Finance also created the legal framework for the uniform application of the standard by introducing specific accounting accounts in the General Accounts Plan annex to the Accounting Regulations in accordance with International Financial Reporting Standards, approved by Order of the Minister of Public Finance no. 2844/2016, with subsequent amendments and completions. Leasing accounting has been and remains a sensitive area in which professional accountants must exercise their professional judgment in order to assure users of information that the presentation of the items in the Statement of Financial Position / Balance Sheet and the profit and loss account has been made taking into account the fund economic nature of the transaction or commitment in question and not only the legal form of the lease. In the following, we intend to highlight how the application of the provisions of IFRS 16 "Leases" affects the Statement of Financial Position and the profit and loss account for entities that have the quality of lessee in a leasing contract.

Keyword: financial lease, operational leasing, lessee, lessor, right of use assets of leased assets, support assets, depreciation, interest.

JEL Classification: M 41.

1. Application of IFRS in Romania

The issuance of accounting rules for the application of IFRS is the responsibility of the regulatory authorities, namely the Ministry of Finance, the National Bank of Romania and the Financial Supervisory Authority.

In the following we will refer to the application of IFRS by economic operators represented by entities whose securities are traded on a regulated market and some companies and companies with full or majority state capital included in the list annexed to the O.M.F.P. no. 666/2015 on the application of accounting regulations in accordance with International Financial Reporting Standards by certain state-owned entities (Official Gazette of Romania, Part I, no. 442/22 June 2015).

Entities whose securities are traded on a regulated market apply IFRS from the financial year 2012, while companies and companies wholly or majority-owned by the state apply IFRS from the financial year 2018.

Although the number of entities applying IFRS is small compared to the total number of entities (less than 100 entities), they account for a significant share of total net assets in the national economy, some of them operating in strategic areas (transport, electricity, oil, gas).

Due to the need to provide users with information that is as complete and comparable as possible, entities develop accounting policies under IFRS and apply them consistently from period to period.

Until 31 December 2018, the provisions of IAS 17 "Leasing" together with some interpretations were applicable for lease accounting (IFRIC 4 "Determining whether an arrangement contains a lease", SIC 15 "Operating leases – incentives", SIC 27 "Evaluating the substance of transactions involving the legal form of a lease").

From the financial year 2019 onwards, the accounting and disclosure of leases is performed in accordance with IFRS 16.

2. Novelty items brought by IFRS 16

a) Redefining the objective of the standard

The objective of IAS 17 is limited to "prescribing, for lessees and lessors, the accounting policies to be disclosed in respect of leases" (IAS 17 par. 1).

IFRS 16 prescribes principles for the recognition, measurement, presentation and disclosure of leases. The objective is to ensure that lessees and lessors provide relevant information in a way that accurately represents those transactions" (IFRS 16 par. 1).

IFRS 16 also requires entities to consider all available information when accounting for a lease.

b) Revision of the definition of leasing contract

IAS 17 defined a lease as "an arrangement whereby the lessor grants to the lessee, in return for a payment or series of payments, the right to use an asset for an agreed period of time" (IAS 17 par. 4).

IFRS 16 states that "a contract is, or contains, a lease if that contract grants the right to control the use of an identified asset or for a specified period of time in exchange for consideration" (IFRS 16 par. 9).

Compared to IAS 17, we see two new conditions, namely that the user has control and that the asset is identified.

Control of an asset during the term of the contract means that the entity (lessee) obtains all the benefits from the use of the asset and has control over its use. In terms of „asset identification”, contracts must specify the asset whose use is transferred to another entity by providing specific identification data.

In relation to control of the asset, the analysis should consider the terms and conditions of the contract to see whether the supplier has a real right to substitute the asset (e.g. to replace it with a similar one) or to benefit economically from its right of substitution.

Depending on whether these conditions (existence of control and identified asset) are met, a contract will be classified as a lease (if it meets the conditions) or a rental contract and accounted for accordingly.

c) The existence of exemptions from the recognition provisions for leases in the standard.

Exemptions from the recognition provisions are optional and relate to short-term leases and leases where the asset has a low value.

A short-term lease is a lease that, "at the commencement date, has a term of 12 months or less" (IFRS 16 BC 93).

To assess whether an asset has a low value, the analysis is carried out both in terms of the individual value of the asset and in terms of how it is used, i.e. whether it is used independently of other assets.

The IASB has decided that if an underlying asset is highly dependent on, or closely related to, other underlying assets, a lessee need not apply the exemption from the recognition requirements for the lease of that individual asset" (IFRS 16 BC 102).

To qualify for recognition as a "low value asset", the IASB considered "underlying assets with a value, when new, of the order of \$5,000" (IFRS 16 BC 100). By way of

example, the standard stipulates that tablets, telephones and furniture can be treated as low-value assets.

For short-term leases and leases for which the underlying asset has a low value, IFRS 16 states that "the lessee shall recognise lease payments associated with such leases as an expense, using either a straight-line basis over the lease term or another systematic basis" (IFRS 16 par. 6).

In practice, contracts may contain various clauses for the protection of rights in the assets whose use is transferred. The examples accompanying IFRS 16 (examples 1-11) set out the terms (conditions) of some contracts and comments on their classification in relation to the criteria for recognition as leases or rentals.

d) Classification of leasing contracts

For lessees, the classification of leases as operating or finance leases is important from a legal point of view, as the contract sets out the rights and obligations of the parties.

IFRS 16 deals with the classification of leases in the section on lessors. Depending on the classification made, lessors will account for leases differently for the two categories of leases. In principle, accounting for operating leases and finance leases with the lessor under IFRS 16 is consistent with the accounting model in IAS 17.

Whether a contract is classified as an operating or finance lease depends on the substance of the transaction rather than the form of the contract" (IFRS 16 par. 63). The Standard sets out "examples of situations which, individually or in combination, may usually lead to a lease being classified as a finance lease."

A contract that transfers all the risks and rewards of ownership of an underlying asset is classified as a finance lease. A contract that does not transfer substantially all the risks and rewards associated with an underlying asset will be classified as an operating lease.

e) Accounting for leasing contracts to the lessee

To account for a lease, the lessee must review the terms of the lease to see if it contains one or more lease and non-lease components.

Non-lease components are accounted for in accordance with other standards, such as IFRS 15 „Revenue from Contracts with Customers”.

If there is more than one lease component and non-lease component, the lessee shall estimate the value of each component based on the individual selling price and allocate the lease payments accordingly.

IFRS 16 provides a single model for accounting for leases at the lessee level, and the classification of the lease as a finance lease or an operating lease has no accounting implications.

The standard defines new terms such as „right-of-use asset” and „underlying asset”.

Underlying asset is "an asset subject to a lease for which a lessor has granted the right to use that asset to a lessee" (IFRS 16 Appendix A Defined terms).

Right-of-use asset „means the right of a lessee to use an underlying asset during the lease term” (IFRS 16 Appendix A Defined terms).

The commencement date of a lease is „the date on which a lessor makes an underlying asset available for use by a lessee” (IFRS 16 Appendix A Defined terms).

A lease (operating or finance) will be accounted for in the accounts of a lessee by recognising, at the inception of the lease, an asset relating to the right to use the underlying asset and a related liability.

The asset relating to the right of use of the underlying asset is initially measured at cost. The liability recognised at the inception of the lease is measured at the present value of the lease payments outstanding at that date.

Assets related to the right of use of underlying assets measured at cost are depreciated and amortised, similar to the class of assets to which they relate (for example, the right of use of underlying assets of a technological equipment nature will be depreciated and amortised in accordance with the accounting policies approved by the entity for property, plant and equipment of this nature that it owns).

Depending on the terms of the contract, the right-of-use asset is depreciated:

- from the commencement of the lease term to the end of the useful life of the underlying asset, if the lessor transfers ownership of the underlying asset by the end of the lease term;
- from the commencement date until the earlier of the end of the useful life of the asset to which the right of use relates and the end of the lease term if the lessor does not transfer ownership of the underlying asset by the end of the lease term.

3. Subsequent measurement and disclosure in the annual financial statements of the right-of-use assets of the underlying assets and lease liabilities

Subsequent to initial recognition, the right-of-use assets of the underlying assets are measured using the cost model.

By exception, the lessee may apply the fair value model for right-of-use assets that meet the definition of investment property dealt with in IAS 40 „Investment Property” or the revaluation model if the right-of-use assets are associated with a class of property, plant and equipment to which the revaluation model applies.

Where the cost model is used, right-of-use assets are presented in the Statement of Financial Position at cost less accumulated depreciation and impairment losses shown, adjusted for any revaluations of the liability under the contract.

Liabilities under a lease shall be measured and disclosed in the Statement of Financial Position at an amount that reflects:

- the increase in the carrying amount by the interest associated with the lease liability;
- the decrease in the value of the liability with lease payments made;
- revaluation of the book value as a result of changes in leasing contracts.

The income statement shows the depreciation charge relating to the right of use of the underlying assets and the interest expense incurred during the year.

Underlying assets subject to a leasing contract are shown in off-balance sheet accounts.

Accounting for leases in accordance with the Accounting Regulations on individual annual financial statements and consolidated annual financial statements, approved by the Prime Minister's Order No 1802/2014, as amended and supplemented

According to these accounting regulations, the accounting model for leases is consistent with the provisions of IAS 17 respectively:

- in the case of finance leases, the lessee recognises in the accounts the asset subject to the lease and depreciates it;
- in the case of operating leases, the asset covered by the lease is recognised in the lessor's accounts. The lessee records periodic payments in the profit and loss account and leased assets in off-balance-sheet accounts.

4. Conclusions

The application of IFRS 16 from 2019 onwards has been a challenge both for staff in entities applying IFRS and for financial auditors and valuers performing the impairment test required by IAS 36 "Impairment of Assets".

Apparently, by establishing a single model for accounting for leases to lessees there is a simplification and better understanding of the information presented in the annual

financial statements. In fact, the standard provides ample room for the exercise of professional judgement by those involved in lease accounting.

Issues such as the identification of a lease and its components, classification of leases, application of recognition exceptions, initial measurement and subsequent measurement of the underlying right-of-use asset and lease liability require professional judgement and estimates.

In order to meet the stated objective of ensuring "that lessees and lessors provide relevant information in a manner that accurately represents those transactions" (IFRS 16, part. 1), those involved in the process of preparing and presenting financial statements need to consider both the legal and economic substance of the transactions.

The transition to IFRS 16 by some entities applying IFRS has led to the reclassification of some long-term leases to leases and a change in their accounting.

In order to avoid the risk of reinterpretation or reclassification of contracts (from leases to rental contracts and vice versa), accounting professionals should take into account all information available at the date of classification and recognition of these contracts.

As the valuation of the underlying right-of-use asset and lease liability involves elements that are estimated (e.g. implicit interest rate, variable payments) it can sometimes be difficult to measure these elements in the annual financial statements.

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TECHNICAL AND COMMERCIAL QUALITY OF ELECTRICITY DISTRIBUTION IN ROMANIA

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Abstract: *The discovery of electricity, the greatest discovery of humanity, has fundamentally changed its way of life. In an ever-changing and innovating society, electricity has become a vital component of daily life, fueling entire infrastructures and making our daily lives easier. The energy sector in Romania has, so far, underwent multiple, profound transformations. From a promising start and an explosive development, to moments when the energy system stagnated in evolution and entered a downward slope, in which financial interests prevailed to the detriment of the development and assurance of an increasingly high quality of services offered. However, one element remained and will remain extremely important: the consumer of electricity. In the conditions of a legislative dynamic that entails profound changes, Romania's Energy Strategy must set concrete and clear goals for Romania to consolidate its position as an energy producer and manager of stress situations at regional level, so that the main beneficiary of its implementation will be the consumer.*

Keywords: *electricity, quality of services, energy strategy.*

JEL Classification: *C46, L15.*

1. The energy sector in Romania after 1990

The fall of the communist regime in December 1989 led to a period of transition that generated profound changes in all fields. These changes have also affected the energy sector, a strategic sector of great interest.

In 1990, with the legal reorganization of socialist enterprises in mind, autonomous companies emerged in the energy sector, the most important of which were: Autonomous Coal Management in Romania, Autonomous Lignite Management in Romania, Autonomous Natural Gas Management “ROMGAZ” Mediaș, Autonomous Petroleum Management “PETROM” and Autonomous Electricity Management “RENEL”. Also, autonomous heat distribution companies have been set up in the main cities of the country.

But the transition period also led to a reduction in industrial production, a situation that inevitably affected the energy sector.

The volume of energy resources provided by the extractive industry decreased, this decrease being only partially covered by the increase in imports of natural gas and crude oil.

The severe reduction in production in the energy-intensive branches, which did not have an sale market, led to a significant decrease in national consumption, which allowed meeting the growing demand from household consumers. On the other hand, electricity and heat prices, including the price of natural gas, being controlled by the state, rose more slowly than the inflation index.

The downside was the accumulation of losses in the autonomous utilities in the energy sector, although under normal conditions they should have been extremely profitable.

In the mid-1990s, the authorities' attempt to revive the economy using the old procedures failed, with economic losses leading to severe imbalances. Following the 1996 elections, the government led by the Democratic Convention decided on a strong restructuring, which also affected the energy sector.

By starting to use the first unit of the Cernavoda nuclear power plant in 1996, coal mining exploitation was put to an end, which became unprofitable and generated massive financial losses after 1990.

In order to compensate for the serious deficits of the state budget, the government initiated a broad privatization policy. The government wanted to attract investors that would support the modernization of industry and services enterprises.

This step led to the transition to privatization of the energy sector.

The first privatization took place in 1997, when the majority stake of Astra Ploiești Refinery was taken over by Interagro.

Between 1998 and 2004, the refineries were the "stars" of privatizations in Romania. In 1998, the decision to reorganize the Autonomous Companies was taken, which were restructured and transformed into commercial companies. The restructuring of the integrated monopolies RENEL and ROMGAZ was done at the coercion of the International Monetary Fund and the World Bank.

The "ROMGAZ" Mediaș Autonomous Authority was restructured and transformed into the National Natural Gas Company S.N.G.N. ROMGAZ S.A., organized in 5 (five) subsidiaries and, subsequently, in 2001 S.N.G.N. ROMGAZ S.A. was reorganized again, being divided into 3 (three) companies: the National Natural Gas Transmission Company Transgaz S.A., Distrigaz Sud S.A. and Distrigaz Nord S.A.

Between 2004 - 2005 Distrigaz South S.A. and Distrigaz North S.A. were privatized by selling the majority stake in the E.ON Group in Germany and Gaz de France. In 2008, at the international level, the merging took place between the majority shareholder Gaz de France and Suez, the new name of the company being GDF SUEZ. In 2015, following a rebranding process, the company changed its name again, becoming ENGIE.

The Autonomous Petroleum Authority "PETROM" after 1989 took over all the activities of exploitation of crude oil resources.

In 1997, the autonomous directorate was transformed into the National Company PETROM S.A., which included several production areas, two refineries, chemical activity, transmission networks and local distribution entities (PECO).

In 2001, the privatization process began, initially by listing the shares on the Bucharest Stock Exchange and continued in 2002, by registering 11 (eleven) qualified investors in the privatization race. During all this time, the Romanian state was assisted by the international bodies: the International Monetary Fund and the World Bank.

After the completion of the privatization process, in 2004, the company underwent an extensive restructuring and reorganization process, OMV gradually giving up all unprofitable activities, among the most important being the DOLJCHIM plant and the ARPECHIM refinery.

The Autonomous Electricity Authority "RENEL" specialized in production, transport, distribution of electricity through conventional and nuclear power plants, the production and transport of thermal energy and the supply of electric and thermal energy.

It was restructured in 1998, leading to the creation of the National Electricity Company "CONEL", following the application of the Romanian Government Decision 365 / 03.07.1998.

In 2000, following successive restructurings, CONEL was divided into 5 (five) independent companies wholly owned by the state: S.C. Termoelectrica S.A., S.C. Hidroelectrică S.A., S.N. Nuclearelectrică S.A. for electricity production, S.C. Electrica S.A. for the distribution and supply of electricity and C.N. Transelectrica S.A. with the role of Transport and System Operator, having the subsidiary with legal personality S.C. OPCOM S.A. Following this division, the National Electricity Company "CONEL" was dissolved.

In 2001, based on the Romanian Government Decision no. 1342 / 27.12.2001, regarding the reorganization of S.C. Electrica S.A., 8 (eight) electricity distribution and supply companies were created.

Between 2005 and 2014, the Romanian state privatized a large part of these companies, selling shares to investors or listing shares on the Stock Exchange.

The companies S.C. Termoelectrica S.A., S.C. Hidroelectrică S.A., C.N. Transelectrica S.A. and S.N. Nuclearelectrică S.A. also went through a similar privatization process.

In the vision of the Romanian state, the privatizations in the Romanian energy field were made on the one hand to bring revenues to the state budget, on the other hand to attract companies in Romania that were able to improve management and invest in the Romanian energy industry.

Regarding renewable energy, European countries have been developing renewable energy programs since the 1990s..

As the exploitation potential of renewable energy resources was used below optimal capacity in the European Community, it was necessary to accelerate the achievement of the goals set in the Kyoto Protocol. In 2001 the first European Directive was issued to regulate electricity from renewable sources.

The first European Directive was amended in 2009 by another Directive, which required a sound legislative framework. Thus, all Member States of the European Union were required to contribute to the 20% target of energy produced from renewable sources in the final gross energy consumption.

Romania has adopted a National Action Plan in the Field of Renewable Energy (PNAER) through which it has assumed the target of 24%, composed of:

- the share of energy used for heating and cooling from renewable sources;
- the share of electricity from renewable sources;
- the share of energy from renewable sources in transport.

Thus, in 2013 in the Romanian energy sector the most electricity projects from renewable sources were registered, built and connected to the National Energy System wind and photovoltaic parks, respectively cogeneration plants based on biomass and biogas.

In order to stimulate investments in this sector, the Romanian state promoted a subsidy scheme, by granting green certificates to producers for each MWh delivered in the network.

The granting of these subsidies, however, led to increased costs in invoices, as suppliers of final customers were forced to buy a number of green checks, costs that were transferred to the invoices of consumers, domestic and industrial.

The privatization process has forced Romania to adapt to the policies and institutional mechanisms of the European Union. In this context, Romanian state institutions were created, meant to ensure the regulation in the energy sector. One of the most important, the National Energy Regulatory Authority (A.N.R.E.) is an autonomous public institution of national interest that has legal personality and is subordinated to the Romanian Parliament. This was created as a result of the Romanian Government Decision no. 767/11 August 1997. Between 1997 and 1998, the A.N.R.E. rules and the primary legislative framework for regulating the energy sectors were approved.

A.N.R.E. was created to enforce the system of mandatory regulations at the national level, necessary for the functioning of the electricity and heat sectors and market, in terms of efficiency, competition, transparency and consumer protection.

In 1998 the A.N.R.E. issued the first activity licenses on the electricity and natural gas markets and approved the first decisions on electricity, heat and gas tariffs.

In the three areas that fall within its sphere of competence - electricity, natural gas and the promotion of energy efficiency - A.N.R.E. monitors the issuance and application of legal and technical regulations, the establishment of prices and tariffs, as well as the concordance of the situation in Romania with the energy policy and regulations of the European Union.

2. Electricity Distribution in Romania

The Electricity Distribution Companies were founded in 2001 following the process of reorganization and restructuring of the former National Electricity Company "CONEL" and the reorganization of S.C. Electrica S.A.

Based on the Decision of the Romanian Government no. 1342 / 27.12.2001, regarding the reorganization of S.C. Electrica S.A., 8 (eight) Commercial Companies for the distribution and supply of electricity have been established:

- Electrica Transilvania Nord (based in Cluj-Napoca);
- Electrica Transilvania Sud (based in Braşov);
- Electrica Muntenia Nord (based in Ploieşti);
- Electrica Muntenia Sud based in Bucureşti);
- Electrica Banat (based in Timişoara);
- Electrica Moldova (based in Bacău);
- Electrica Oltenia based in Craiova);
- Electrica Dobrogea (based in Constanţa).

In 2005, the subsidiaries of Electrica Banat, Electrica Moldova, Electrica Oltenia and Electrica Dobrogea were 51% privatized, Electrica S.A. remaining a shareholder in them. Their buyers were CEZ (Czech Republic), E.ON (Germany) and ENEL (Italy).

On August 1, 2007, the European Directive no. 54 from June 26, 2003 was put into practice and it was regulated by GD no. 675 from June 28, 2007 on the separation of the activity of electricity supply from the activity of electricity distribution.

Consequently, the 3 (three) subsidiaries wholly owned by Electrica S.A. were divided on the basis of the supply and distribution activity, thus forming the following subsidiaries:

- Electrica Supply Muntenia Nord;
- Electrica Supply Transilvania Nord;
- Electrica Supply Transilvania Sud;
- Electrica Distribution Muntenia Nord;
- Electrica Distribution Transilvania Nord;
- Electrica Distribution Transilvania Sud.

Between 2008-2014, the Romanian state continued the privatization process of S.C. Electrica S.A., selling shares to investors or listing shares on the Stock Exchange.

Regardless of the organization, the Electricity Distribution Operators serve all areas of Romania, having as coverage area all the counties of the country.

Their mission is to distribute electricity at high quality standards in terms of safety, performance, accessibility and sustainability.

The activities carried out within the Electricity Distribution Operators in Romania are the following

- electricity distribution;
- electricity measurement;
- connection to the electrical distribution network

In relation to the customers, the Electricity Distribution Operators provide important and useful information for them regarding:

- planned power outages;
- compensation of household customers for damaged appliances due to the fault of the distribution operator
- granting compensations according to the provisions of the Performance Standard for the Electricity Distribution Service, approved by the A.N.R.E. no. 11 / 30.03.2016, published in the Official Gazette of Romania, part I, no. 291 / 18.04.2016;
- the procedure for changing the electricity supplier;
- tips for the safety of electricity consumers.

3. Performance Standard for the Electricity Distribution Service. Performance indicators

The activities of the Electricity Distribution Operators in Romania are regulated by Orders and Decisions of the National Regulatory Authority in the Field of Energy, respectively by Energy Technical Norms.

The main activity of the companies is electricity distribution, which is being regulated by the A.N.R.E. no. 11/2016 on the approval of the Performance Standard for the Electricity Distribution Service. This order took effect on 30.03.2016 and was published in the Official Gazette of Romania, part I, no. 291 / 18.04.2016.

With the entry into force of the Order of the A.N.R.E. no. 11/2016, the first Performance Standard for the Electricity Distribution Service approved by the A.N.R.E. Order was repealed. no. 28/2007.

The standard establishes the performance indicators for the distribution service, indicators that are grouped in 3 (three) categories:

1. indicators regarding the continuity of users' electricity supply;
2. indicators regarding the technical quality of the distributed electricity;
3. indicators on the commercial quality of the electricity distribution service

The provisions of the Standard, regarding the observance of performance indicators, do not apply in situations of major force or abnormal operation of the Electricity Distribution Network determined by the Transmission System Operator, provided that the Distribution Operator has taken all measures to limit the effects of the cause that causes the abnormal functioning.

3.1. Continuity indicators in users' power supply

In accordance with the provisions of the Performance Standard for the Electricity Distribution Service, the Romanian Electricity Distribution Operators have the obligation to ensure continuity in the electricity supply, in accordance with the levels established in the Standard, taking, in this regard, all measures to reduce the duration of outages and to plan them at dates and times that affect electricity consumers as little as possible.

Interruptions in the supply of electricity can take place planned (for the development or maintenance of networks) or unplanned (accidentally, due to damage to the electricity distribution networks).

Distributors have the obligation to record all long-term outages ($t > 3$ min), as well as short-term outages ($1s < t < 3$ min) of electricity at consumption / production sites connected to RED, regardless of their voltage.

In accordance with the provisions of the Performance Standard, starting with January 1, 2019, distributors have the obligation to refuel electricity consumers, after an unplanned outage, as follows:

- for the urban environment, except for the county seat municipalities, under normal weather conditions, in a maximum of 6 hours;

- for the county residence municipalities, in normal weather conditions, in maximum 4 hours;
- for the rural environment, in normal weather conditions, in maximum 12 hours;
- for the urban or rural environment, in special meteorological conditions, in maximum 48 hours;

At the same time, the number of long, unplanned outages in a calendar year, depending on the voltage level to which the places of consumption are connected, must not exceed:

- 3 interruptions, regardless of the area, for all consumption places connected to IT (high voltage) and MT (medium voltage);
- 8 interruptions, in the urban environment, for all consumption places connected to JT (low voltage);
- 16 outages, in rural areas, for all consumption places connected to JT (low voltage).

Regarding the planned interruptions, the Electricity Distribution Operators in Romania have the obligation to notify the users affected by this type of interruptions, mentioning their estimated duration. In a calendar year, for development and maintenance works, the company is not allowed to cause, to the consumers of electricity, interruptions more than:

- 4 planned interruptions with a maximum duration of 8 hours each, in the urban environment;
- 8 planned interruptions lasting a maximum of 8 hours each, in rural areas.

In case of non-compliance with the conditions imposed by the Standard, the Distribution Operators are obliged to pay compensations to the affected consumers.

3.2 Indicators regarding the technical quality of distributed electricity

These indicators refer to the quality of the voltage curve. The main quality parameters of the voltage curve are the following:

- limits for medium voltage (MT) and high voltage (IT) contract voltage;
- flicker;
- rapid voltage variations in normal regime;
- asymmetry (negative component);
- frequency

The technical quality of electricity is monitored using quality analyzers.

In the case of written complaints regarding the quality of the voltage curve, received from consumers, Distribution Operators have the obligation to perform checks, analyze and inform users about the results of the analysis and the measures taken. The standard time limit for responding to complaints about the quality of the voltage curve is 20 calendar days.

3.3 Indicators on the commercial quality of distributed electricity

13 (thirteen) indicators on the commercial quality of distributed electricity are nominated in the Performance Standard for the Electricity Distribution Service, namely:

- issuing technical approvals for connection
 - 10 calendar days in case the establishment of the connection solution to the electrical network of IT, MT or JT of a place of consumption / production is made

on the basis a solution study

- 30 calendar days for the establishment of the network connection solution

IT, MT or JT of a place of consumption / production is made on the basis of a sheet of solution

- issuing connection certificates
 - 10 calendar days
- transmission of the connection contract offer
 - 10 calendar days
- design, obtaining the building permit for the connection, execution and reception of the commissioning of the connection
 - 90 calendar days
- transmission of the distribution contract offer
 - 20 calendar days
- the term of energization of the use installation
 - 10 calendar days
- response to written requests to explain the cause of the interruptions
 - 15 calendar days
- response to written complaints about the quality of the voltage curve
 - 20 calendar days
- response to requests / notifications / complaints or requests regarding causes other than those explicitly provided in the standard
 - 30 calendar days
- response to the written complaint regarding the measured data / recalculated electricity consumption
 - 15 calendar days
- reconnection to the network, from the moment of announcing the OD by the user / provider of making the payment
 - 2 working days
- installation / replacement of the measuring group / elements of the measuring group missing, defective or suspected of erroneous records
 - 5 working days for a place of consumption / production with an approved power greater than 100 kW
 - 10 working days for a place of consumption / production with an approved power less than or equal to 100 kW or in the case of a household customer
- replacement / reprogramming of the meter, at the request of the holder of the distribution contract to change the type of tariff or at the change of the holder of the supplycontract
 - 15 calendar days

4. Conclusions

If the Distribution Operators do not ensure the level of performance established by the standard, they are obliged to pay compensation to the affected electricity consumers.

Compensation is an amount of money that Distribution Operators pay to users connected to the affected network area, if the level of a performance indicator is not reached. The values of the compensations are established in the annexes of the Performance Standard for the Electricity Distribution Service. The compensations are granted automatically by the Distribution Operators, without the need for a request from the affected consumers.

Reforms in the energy sector, that began in the 1990s, started with the idea of providing quality services to consumers by improving security and offering low prices. The solution to these desiderates seemed to be the separation of the monopoly areas from the competition ones and the creation of the premises for the competitive market.

With Romania's joining to the European Union, it had to fully comply with the provisions on guidelines for trans-European energy infrastructure. The European Union has put on the agenda, among other things, the alignment of energy prices in Romania to current levels in international markets.

The price of energy is in a gradual liberalization process, under the pressure of withdrawing regulated prices and the need to reflect in the price of energy, investments for the development and modernization of energy infrastructure. which defines the vision and sets the fundamental objectives of the development process of the energy sector.

The energy sector represents the backbone of a state's economy, its interest being the realization of investments, the establishment of fundamental objectives and a vision regarding its growth in conditions of sustainability.

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STUDY ON THE PERCEPTION OF QUALITY AT THE LEVEL OF PRE-UNIVERSITY SECONDARY EDUCATION INSTITUTIONS

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Abstract: *The study on the perception of quality at the level of pre-university lower secondary education institutions highlights the importance of establishing the essential elements in improving quality management in school organizations. The quantitative research was conducted on a sample of 100 teachers from secondary school units, both in rural and urban areas, in Dâmbovița County. The research combined both the face-to-face interview technique and the internet survey, using the questionnaire as a research tool. The obtained results highlight the aspects related to the present initiatives and the acquisitions previously acquired by the school organizations in the field of quality management, to obtain performance, through the vision of the teaching staff.*

Keywords: *quality, quality management, performance evaluation.*

JEL Code: I21.

1. Introduction

In an increasingly dynamic and complex society, several new challenges for quality management developed and implemented in a school organization are being raised and fewer and fewer solutions are being offered. In this context, the innovation, training, and creativity of teachers become the chances to solve current problems or substantive dilemmas faced by improving the quality management in education.

2. Theoretical Approach

In the literature, the concept of quality has a wide range of definitions and explanations. In essence, quality is defined in several ways but is easily recognized by standards. It relates to the needs of the consumer. This involves setting standards concerning customer needs, constantly updating these standards. The concept of quality is also understood through competitiveness and the ability to excel. We focus on one of the definitions given to quality: quality is the ability of a set of intrinsic characteristics of a product, system, or process to meet the requirements of customers or other stakeholders (Enătescu, et al., 2000).

Quality is the basis of the positioning of organizations, institutions, attracting the degree of interest shown to them. Quality refers to the number or quantity of resources consumed to meet standards and meet requirements. Quality management in education is based on a set of activities of planning, control, and quality improvement. Recognizing the particularly key role of teachers in the development of the educational process has a much longer history than recognizing the role of the curriculum in the same aspect. People are considered a crucial resource, the most valuable asset for any type of organization, regardless of its field of activity (Maican, 2001).

From this perspective, the positive experiences, the essential concentrations of the Romanian school management system, and the contemporary trends are balanced. There is a permanent balance between the present initiatives and the previously acquired acquisitions, to achieve performance (Istrate, 2012).

3. Study on the Perception of Quality at the Level of Secondary Education Institutions

3.1. The Methodological Framework of the Research

The size of the sample: the sample consists of 100 teachers from secondary school units, both in rural and urban areas, in Dâmbovița County. For this research was used non-randomized sampling. The research was conducted through surveys and is quantitative, using face-to-face interview methods and using the internet, based on a questionnaire.

The questionnaire contains 5 main subjects, with 22 items, corresponding to the testing of the two working hypotheses. The questionnaire was built based on five-step semantic differential assessment scales and the Likert scale. Processing of the questionnaire was made in the database created in the Microsoft Excel software, where the Data Analysis Tools tool was applied.

Research objectives

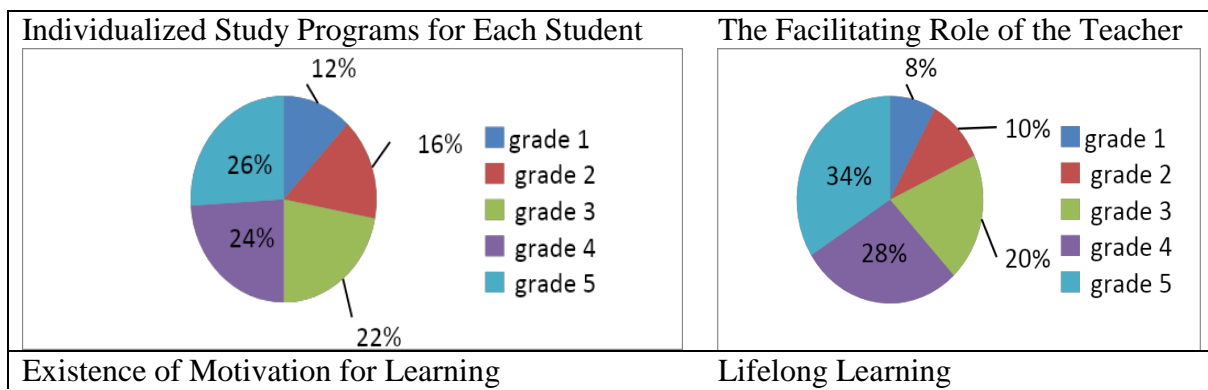
- Establishing the essential elements in improving quality management in school organizations.
- Identifying the perception on the training of the teaching staff and the connection with the improvement of the quality management.

Research hypotheses

- ✓ The professionalization of the management of school organizations determines the increase of the quality of education.
- ✓ The efficient training of the teaching staff directly influences the increase of the quality in the school organizations.

3.2. The Results

The analysis of the answers for each item leads to the achievement of the objectives of the research methodology. The item "Individualized study programs for each student" shows a high weight for the highest grades in the associated assessment scale, with 26% of respondents giving the maximum grade. Likewise for the item "Facilitating role of the teacher", the responding teachers consider the statement under their opinions in a majority of 34% giving the maximum grade, while the minimum grade is obtained in a percentage of only 8% of the total respondents. Regarding the item regarding the existence of motivation for learning, most respondents, respectively 42% consider this item important giving it the maximum grade, while grade 4 is given by 22% of respondents, grade 3 of 20% of respondents, grade 2 of 16% of the respondents and the minimum grade did not register any answer. For the lifelong learning item, teachers gave a grade of 5 in 28%, while the majority in 40% appreciated this item with a grade of 4, a grade of 3 was given by 12%, and grades 2 and 1 were appreciated by 18% and 2%, respectively. Regarding the appreciation of the element that constitutes the current approach of the quality concept for the future, namely the cultivation of local, national, and European values, the respondents give a grade of 5 in a proportion of 24%, grade 4 gets the most answers, in the percentage of 36%, in time what grade 3 is given by 20% of the respondents, grade 2 of 16% and the minimum grade of 4% of the teachers participating in this survey. (Figure 1)



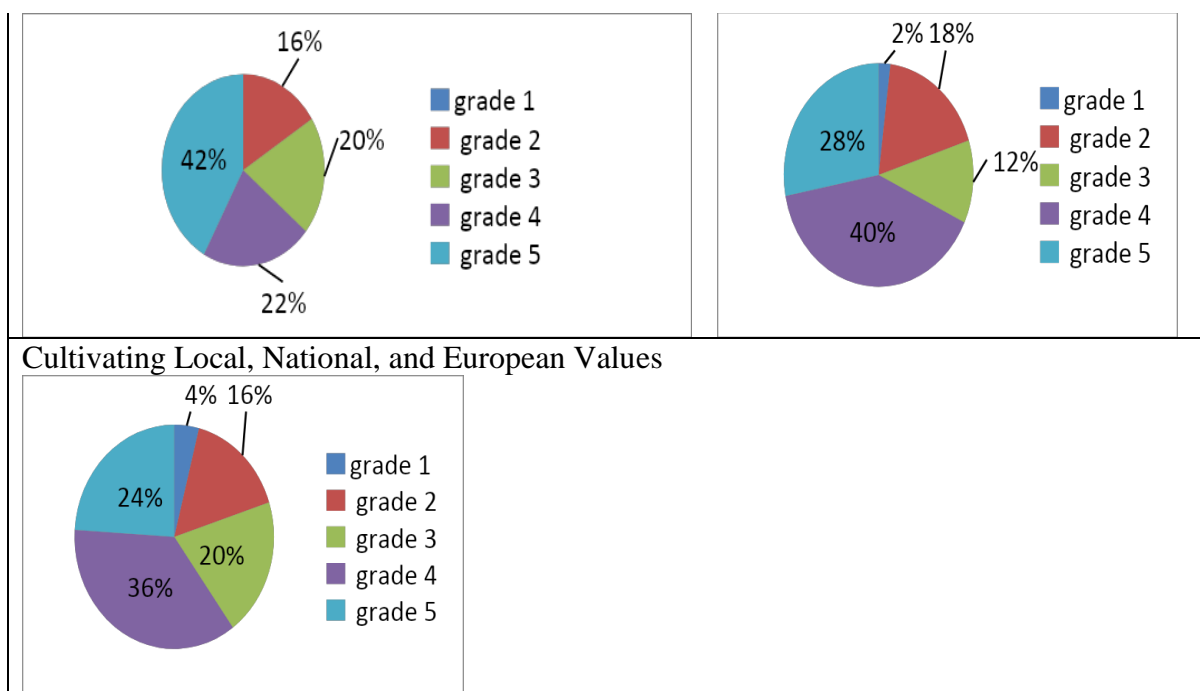


Figure 1: Appreciation of the Concept of Quality for the Future
Source: Data Processed by the Author

Regarding the assessment of the mechanisms meant to ensure quality in education, in the item on efficient management, the majority of 50% of the respondents gave the maximum grade, followed by the rest of the answers divided between grade 4 and 3, respectively in the percentage of 34% and 16%. The efficient training of the teaching staff is following the preferences of the respondents, who give a maximum grade of 54%, followed by grade 4 in 32% and the remaining 14% of respondents appreciate this item with a grade of 3. Records no response for the lowest possible grades. Regarding the rethinking of the learning process, most respondents rate this option with the highest grade to ensure mechanisms for increasing quality in education, 44% of respondents consider this mechanism to be grade 4 by their assessments and 10% give grade 3. No answers for the lowest possible grades are recorded for this item either. (Figure 2)

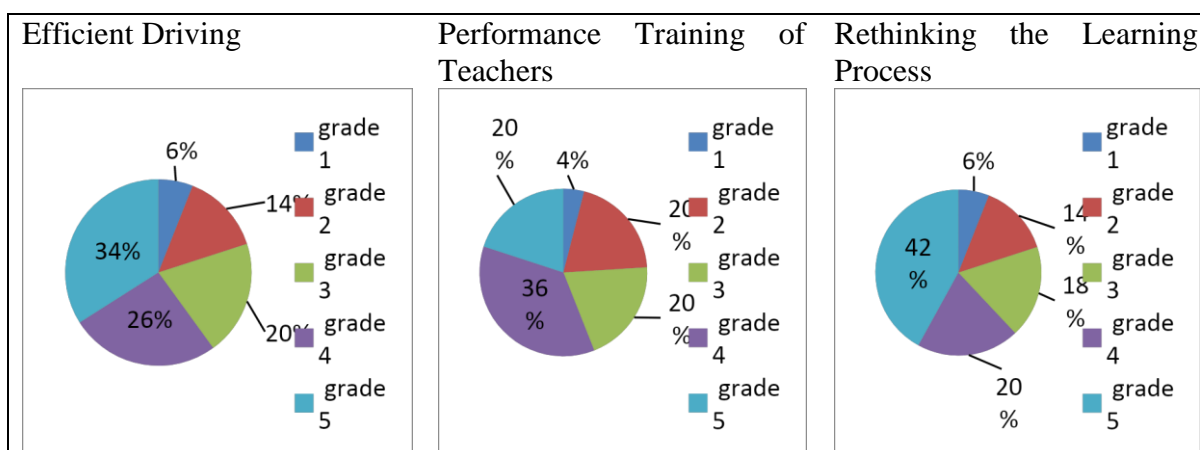


Figure 2: Appreciation of the Mechanisms Meant to Ensure Quality in Education.
Source: Data Processed by the Author

Regarding the evaluation of the degree of importance that influences the performance in education, three items were addressed related to the attitude towards learning, the cultivation and observance of certain values, and the involvement in the act of education. Most respondents, 34%, gave grade 5 to learning attitudes, while 26% gave grade 4, grade 3 was given by 20% of respondents, and grades 2 and 1 were given by 14%, respectively. 6% of teachers participated in the survey. Cultivation and observance of certain values are appreciated by most respondents with a grade of 4, while the maximum grade was given by a lower percentage, respectively 20%, the same percentage of respondents gave grades 3 and 2, and grade 1 was given by 4% of respondents. The involvement in the educational activity is considered by most of the respondents as being of grade 5, grade 4 is assigned in a proportion of 20% and the percentage decreases significantly for the lowest grades up to 6% for the minimum grade. (Figure 3)

Regarding the extent to which the respondents consider that the quality is achieved, three items were considered regarding cultivating well-being in school, digitization of the didactic act and the curriculum adapted to the specifics of the school, the place, and the student. The obtained results highlight the continuous preoccupation towards the improvement of the instructive-educational process for the benefit of the students and the society. The cultivation of well-being is appreciated with a grade of 4 in a proportion of 32%, a similar percentage of 30% gives the item the maximum grade, while grade 3 is assigned by a percentage of 18%, grade 2 by a percentage of 16% and the grade minimum of only 4%.

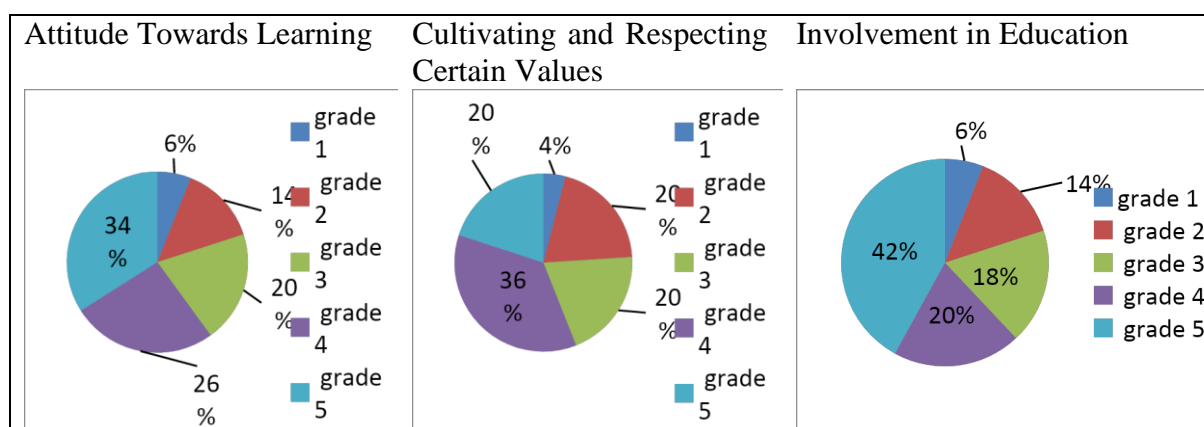


Figure 3: The Factors that Influence Performance in Education.

Source: Data Processed by the Author

Regarding the item digitization of the didactic act, the majority percentage of 34% gives grade 4, the maximum grade being given by a percentage lower than only 20%, grade 3 registers a percentage of 24% of the total answers, while grades 2 and 1 are granted by 14% and 8% respectively. The curriculum adapted to the specifics of the school, the place, and the student is appreciated with the maximum grade in the majority of 32% of the total respondents, a similar percentage of 30% assigns grade 4, grade 3 is conferred by 20%, while grades 2 and 1 are assigned by a percentage of 14%, respectively 4% of the total pre-university teachers participating in the survey. (Figure 4)

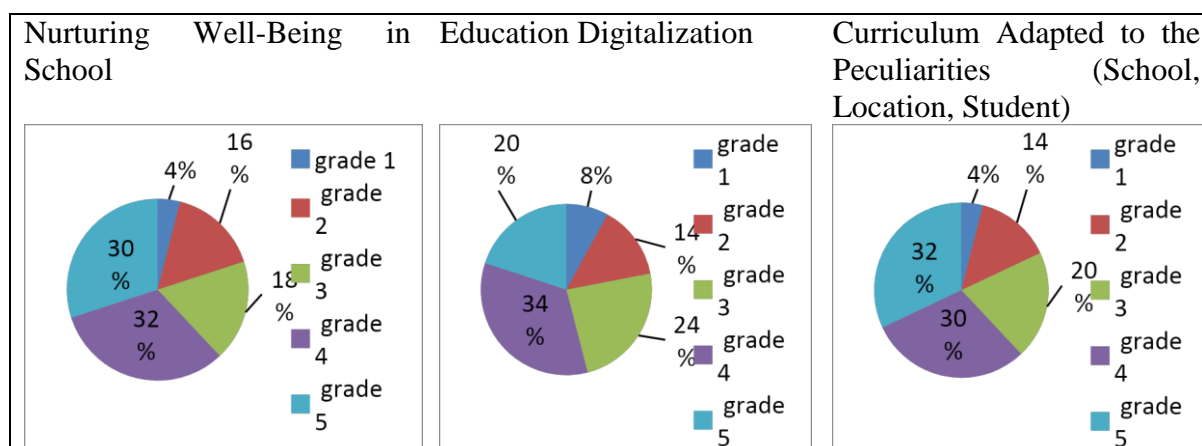


Figure 4: Increasing the Education Quality
Source: Data Processed by the Author

Regarding the validation of the first hypothesis, correlation tests were applied to define the interdependence or link between the observed variables. The value recorded by the correlation coefficient, 0.846, shows a direct and positive correlation, the histogram of the answers shows an asymmetric distribution. The hypothesis is confirmed. (Figure 5)

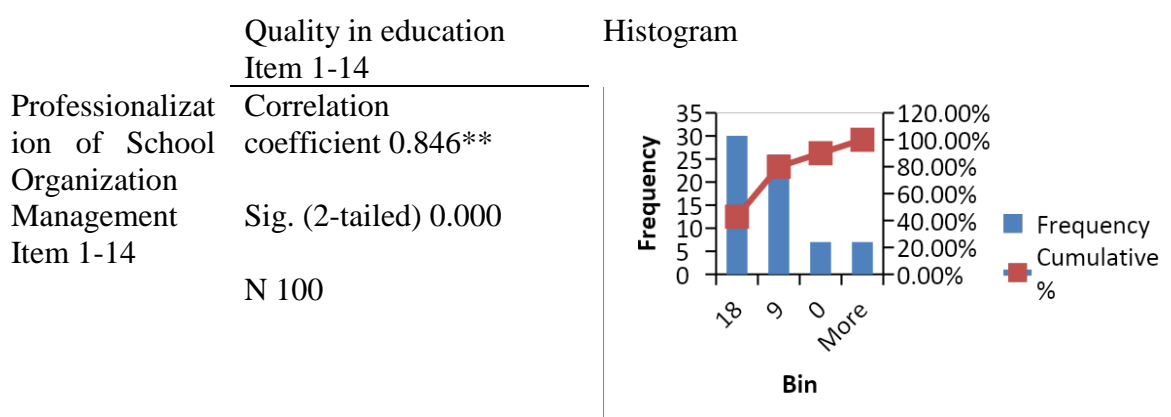


Figure 5: Descriptive Statistics
Source: Data Processed by the Author

Regarding the improvement of the quality management at the level of the gymnasium school units through the prism of the improvement of the teaching staff, a series of eight statements were defined, on which the respondents were asked to express their total agreement, agreement, disagreement, total disagreement, or indifference. Depending on the number of answers and their weighting with the coefficients corresponding to the scale, each of the eight statements obtained a score, which shows the degree of appreciation of respondents according to the importance of the statement on improving quality management in secondary schools. (Figure 6)

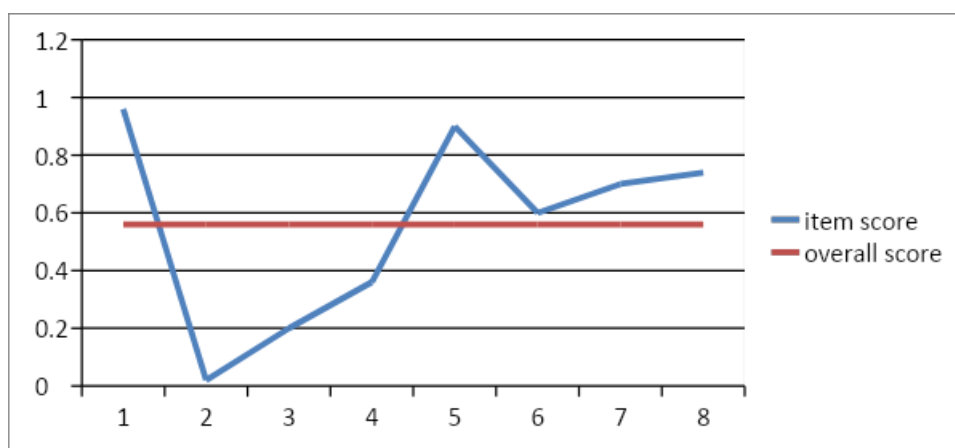


Figure 6: Item Scores

Source: Data Processed by the Author

The statements obtained the following scores:

- the need for the manager's position as an educational leader, score 0.96
- reaching the level of educational expert, score 0.02
- the need for a new method of teacher evaluation, score 0.2
- the need for multidisciplinary training of teachers to develop a vision of the profession, score 0.36
- mobility of the profession (between the level of studies, at international level), score 0.9
- training of non-teaching staff that must be correlated with the needs of the organization, score 0.6
- training students according to the European profile of the graduate, score 0.7
- the need to develop school-parent partnerships, score 0.74

The analysis of the scores obtained for each statement, concerning the total score, validates the second hypothesis of the study, namely the efficient training of teachers directly influences the increase in quality in school organizations.

4. Conclusions

Quality management at the level of gymnasium school units implies a systemic, innovative, situational approach of school organizations that offer training services. In this sense, the school organization must develop its capacity for continuous adaptation to the external environment, by implementing flexible strategic processes. Practicing quality management, applied scientifically and not intuitively, based on strategies designed following the objective diagnosis of the school, with the optimization of material resources, with more motivated and better prepared human resources, and especially with realistic evaluation procedures, represents a successful approach in middle school and beyond. Concerning teachers, the confirmation of the hypothesis that the efficient training of teachers directly influences the increase in quality in school organizations shows that only those who want to study, adapt and change will be able to keep pace, control, and can fulfill teaching tasks, thus meeting the needs of the current generation.

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NEXT CURRENCY: DIGITAL CURRENCY ISSUED OF THE CENTRAL BANK

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Abstract: For more than a decade, several processes that have taken place in the global financial economy, such as declining public use of cash, the growing dynamics of the use of electronic money issued by commercial banks, but also by non-banking intermediaries, the unprecedented proliferation of digital currencies and, in particular, cryptocurrencies, has led many central banks to explore the possibility of issuing their own currencies digitally. First of all, what would be the central banks that are interested in a digital currency, but also a series of questions, such as why a central bank would issue a digital currency, what advantages and what effects would this have, what are the criticisms of issuing such a coin. At the same time, the issuance of a digital currency by central banks would create a serious competitor for commercial banks and the electronic currency they issue. Or maybe the new currency will be complementary to the one issued by commercial banks. Finally, the issuance of a digital currency by central banks raises questions about the solutions chosen for its implementation, will copy the decentralized register (blockchain) used by cryptocurrencies or, another question, will be remunerated for holding the digital currency issued by central banks, as is the case with electronic currencies issued by commercial banks.

Keywords: central bank, digital currencies, electronic currencies, decentralized register.

JEL Classification: G21.

1. Electronic currency - Digital currency - Cryptocurrency

Money in the traditional sense includes money in a physical format (banknotes and coins, usually with legal payment status) and various types of electronic representations of money, such as central bank money (deposits in the central bank that can be used for payments) or the money of commercial banks. Electronic currencies, defined as value stored electronically on a device, such as a chip card or a hard drive in a personal computer, are increasingly used in the world of today. These categories (cash, central or commercial bank money and electronic money in the narrow sense) are traditionally perceived as “money” denominated in a certain currency (BIS, 2015).

Recent developments in the field of electronic money have broadened the concept to include a variety of payment mechanisms used by the general public, including digital currencies. Although, technically, digital currencies can overlap with electronic money, legally and conceptually they do not meet the legal definition of electronic money. For example, the legal definition of electronic money includes the requirement that (1) the balances issued be a claim on the issuer and (2) it be issued upon receipt of the funds. But many digital currencies cannot be considered electronic money in the legal sense, because they are not issued in exchange for funds (even if they can later be bought and sold) and cannot be issued by any natural person or institution. Moreover, although in the case of digital currencies the value stored and transferred is expressed in a sovereign currency, however, in many cases digital currencies are not denominated or linked to a sovereign currency, but are denominated in their own units of value.

Recent history shows that in the last few years hundreds of digital currencies based on distributed registers have invaded the market, some are still working or developing, but there are also some that have disappeared. However, a number of features distinguish them from traditional electronic coins.

In most cases, the value of these digital currencies is determined by supply and demand, similar to commodities, but unlike commodities, their intrinsic value is zero.

Unlike traditional electronic currencies, digital currencies are issued automatically and are not an obligation of any person or institution (of the issuing bank, central or

commercial bank, etc.) nor are they supported by any authority. So their value is based only on the belief that they can be exchanged for other goods or services or for a certain amount of sovereign currency.

The issuance of new digital currency units is usually determined by a computerized protocol, in many cases a cryptographic algorithm (hence the name of cryptocurrencies) and there is no entity that manages the supply of currency and are not named or linked to a sovereign currency, in terms of creation. There are also different predetermined rules for the creation and issuance of new units that do not take into account the needs of the market and cause a supply deficit, which raises their price/market value.

There are also serious differences between digital currencies and traditional currencies in how value is transferred from a payer to a payee. Traditionally, the exchange between the parties in a transaction, in the absence of reliable intermediaries, such as, but not only, banks, was usually limited to money in a physical format. The emergence of traditional electronic currency has made exchanges, i.e. payments, to be made through centralized infrastructures, where a trusted entity settles and clears transactions. The key innovation of some of these digital currencies is the use of blockchain to allow remote peer-to-peer electronic value exchanges in the absence of trust between the parties and without the need for intermediaries. Usually, a payer stores his digital coins in a digital wallet, access to which is possible through a series of cryptographic keys. The payer then uses these keys to initiate a transaction, through which he transfers a certain amount to the payee. That transaction then goes through a confirmation process that validates the transaction and adds it to a single register, copies of which are distributed in the peer-to-peer network between members. The amount of information stored in the register can vary from a minimum, so that the identity of payers and beneficiaries is difficult to establish, keeping only information about the distribution of coins between participants, up to a maximum, in which a multitude is kept in the register, information that may include details about the payer, payee, transactions and balances.

Other distinctive features of the new digital currencies relate to the institutions involved in the payment arrangements. In traditional e-money schemes, there are several service providers: e-money issuers (who present in their balance sheets the e-money issued), network operators, providers of specialized hardware and software, e-money users and e-money transactions. In contrast, many digital currency schemes are not operated by any specific person or institution. Moreover, the decentralized nature of digital currencies means that there is no identifiable network operator, a role that is usually played by financial or clearing institutions in the case of electronic money. There are a number of intermediaries in digital currency schemes that provide various technical services. For example, intermediaries that can provide "e-wallet" services to enable digital currency users to transfer value or intermediaries that provide exchange services between digital currencies and sovereign currencies.

Some digital currency schemes based on a distributed register aim to create a network that works in isolation from, or with a marginal connection to, existing payment mechanisms. Thus, system users opened their accounts directly in a single distributed register and sent and received peer-to-peer payments denominated in the network's native digital currency, the only connection to the existing payment system appears on trading platforms, where digital currencies can be exchanged for sovereign currencies, at quotations that usually reflect supply and demand.

2. Factors influencing the development of digital currencies

Digital currencies based on the use of a distributed register represent a new development in the payments landscape. Many of the factors that have driven the

development of digital currencies have also stimulated innovation in traditional payment methods: technology, low costs, increased speed of transactions, including in the areas of e-commerce and cross-border transactions.

The development of digital currencies based on the use of a distributed register has been largely driven by private sector non-banking operators. Banks initially rejected digital currency intermediaries due to perceptions of risk and uncertainty, but have recently begun exploring potential opportunities.

Another category of factors that led to the abundance of digital currencies are the profit-related reasons, resulting from the issuance of digital currency units (i.e. income similar to the seniority brought to the state by sovereign currencies), from the currency units in circulation (the value of which increases), from the payment and exchange schemes, but also from the transaction fees collected at the intermediation of payments. Digital currencies can also generate revenue by selling associated items or services.

There are also cases (BIS, 2015) in which the issuance of digital currencies was generated by non-profit reasons: the utility gained from experimentation and innovation, ideological motivations related to the desire to create and use alternatives to the traditional financial infrastructure or to facilitate financial inclusion.

In order to increase their acceptance and use, digital currencies based on distributed registers should offer end users a number of benefits over traditional services:

Security. An important risk related to the use of digital currencies based on distributed registers (blockchain) is the risk of loss for users, which can undermine users' trust in digital currency and can also affect intermediaries dealing with trading for users. If a user loses the information that gives them the "ownership" of digital currency units stored in a distributed register, then those units are unrecoverable. Some users of digital currencies rely on intermediaries to keep and store information relevant to their ownership of digital currencies and must trust them to reduce the risk of loss, operational failure or embezzlement.

Cost. Issuers of digital currencies based on distributed registers argue that they can offer lower transaction fees than traditional payment methods, because payment processing is rewarded in monetary units and can offset lower transaction fees. In addition, because transactions through these schemes do not require intermediaries to make payments, the processing costs would have an additional reason to be lower. However, the transaction costs in these schemes are not always transparent and, in addition, conversion fees may arise between the digital currency and a sovereign currency if the user does not wish to hold the balances denominated in the digital currency.

Ease of use is a key reason for joining the payment mechanisms and takes into account elements such as the steps to be taken in the payment process, the intuitive nature of the interfaces, ease of integration with other processes. The use of digital currencies depends on these advantages compared to existing methods and that is why many digital currency providers are trying to improve the user experience in digital payment schemes.

The volatility of the value of digital currencies is another risk faced by holders of such assets when users choose to keep them denominated in digital currency received as payment and which may generate costs and losses associated with price and liquidity risk. These losses are proportional to the volatility of digital currencies. At the same time, some users may choose to keep their denominations in digital currencies, precisely because this volatility can bring them substantial speculative gains. However, it should be noted that the variability of the prices of these digital currencies and, inherently, their exchange rates can be significant obstacles to the widespread adoption of these currencies.

Irrevocability. Most digital currencies based on a distributed register do not have dispute resolution procedures and do not offer irrevocability of payment, i.e. the payee may face a reverse payment due to fraud or refunds.

Processing speed. Issuers of digital currencies based on distributed registers argue that they allow for a faster settlement of transactions than traditional systems, but often innovations in retail payment systems and real-time gross settlement systems appear to be faster, given the conditions in that the registration of transactions in the distributed registers, especially those of small value and which do not offer substantial remuneration for validators, is done in a longer time.

Cross-border coverage. Digital currencies based on distributed registers are global open networks, allowing the transfer of value between users from different countries, which may lead to circumvention of restrictions that may be applied to cross-border transactions by some national authorities.

Data confidentiality. There are many cases of digital currencies based on distributed registers that allow transactions to be carried out without disclosing personal details. Anonymization, avoidance of banks and regulations are sought by those who want to circumvent the laws, hence the fact that many digital currencies are potentially vulnerable to misuse.

Other factors have limited the development of digital currencies. Here are some of them:

Fragmentation. On April 14, 2021, <https://www.coingecko.com/> counted 6693 digital currencies in circulation, with different protocols for processing and confirming transactions and with different approaches to increasing the supply of digital currencies and which are obstacles to achieving the critical mass needed to create a payment network based on digital currency.

Scalability and efficiency. Due to the limited acceptance of digital currencies, the number of transactions in digital schemes has marginal values compared to those made through traditional payment systems, so they are less comprehensive and have a low efficiency, being resource consuming in terms of the energy required to process too few transactions, which limits improvements in processing power and speed and the downward trend in computing and hardware costs.

Pseudonymity. Although digital foreign exchange transactions are usually observable on a public register (insofar as they are not intentionally disguised by so-called anonymizers), many aspects of these registers remain difficult to analyse. Also, the degree of anonymity offered by some digital currency schemes discourages a number of participants from using or facilitating the use of digital currency by their customers, as regulations can be difficult to meet.

Technology and security. Digital currencies based on the use of a distributed registry must be built on a consensus among network participants to ensure the uniqueness of the registry. That is, there must be a single version of the register, distributed over the network, with the full history of transactions and balances. But, in practice, many digital currencies can be affected if different versions of the register coexist for long periods of time or if the procedures for obtaining consensus are faulty. Malicious actors may seek to make a profit by entering fraudulent transactions into the general register and bringing other participants to verify the falsified register.

Sustainability of the business model. Building a long-term sustainable business model for some digital currencies is limited by their constructive characteristics: (a) the incentives for certain actors supporting the scheme (e.g. to verify transactions and their entry in the register) are dependent on the issuance of the currency; and may be limited or may decrease in time; (b) the costs incurred by actors involved in the issuance and administration of digital currency may be significant and there may not be sufficient appropriate incentives for the system to operate when the supply of new digital currency

units decreases or disappears; (c) trading fees may increase to offset the loss of revenue (due to lower issuance of new digital currency units), which could affect the demand and long-term sustainability of the scheme.

3. The reasons why a central bank would issue digital currency

The main reasons why a central bank will sooner or later issue a digital currency along with the physical currency are (Dyson, Hodgsonm, 2016):

The decline of physical money. Although the total amount of cash currently in circulation continues to grow, its use as a means of payment is declining, while the use of credit and debit cards for payments is increasing. Already, in many countries, cards generate more payment transactions than cash. This situation will certainly increase with the growth of contactless payment cards, payment applications on mobile devices. Therefore, physical payments are replaced by electronic ones and it is normal for central banks to want to replace physical currency with electronic, digital ones. Neglecting this trend would lead to the situation where the only form of money used in the economy would be bank deposits issued by commercial banks, and central banks would lose the role of issuer of the sovereign currency.

The implications of alternative financing and money creation. Changes in the financial industry in recent years have made non-bank financial institutions compete with banks and take on a growing share of lending to the economy. This situation also has implications for money creation, because when a bank gives a loan, it creates new deposits for the borrower and therefore money. But when a non-bank financial firm lends, it transfers pre-existing deposits from a saver to the borrower. It does not create new money. The consequence is that if the loans granted by non-banking financial firms increase and the bank loans are reduced, the less money will be created. Therefore, central banks must find solutions, to replace the situation in which the new intermediaries do not create money, without which the economy can enter a recession.

Decrease in central bank revenues from "seigniorage". Seigniorage refers to central bank revenues resulting from the issuance of cash (Dyson, Hodgsonm, 2016). But as cash issuance is declining, it turns out that many central banks are facing declining revenues from this source, a situation that could be remedied by the introduction of digital currencies. Currently, seigniorage is limited by the extent to which the public wishes to hold cash, an asset whose retention has risks attached and is disconnected from the electronic payment system. The public demand is sure to increase if central banks make it available to the public in digital form and in the same form as bank deposits, connected to the electronic payment system.

Increasing financial stability by reducing liquidity risk. Central banks issue an electronic currency equivalent in the form of bank reserves held by commercial banks and a number of financial institutions. In order to connect to the national payments system, an entity must have an account with the central bank and hold reserves issued by the central bank. This means that only banks and financial institutions that have reserve accounts with the central bank can participate as members in the national payment systems. By issuing a digital currency available to all citizens, central banks would also allow other entities to provide payment services, allowing new entrants to compete with banks in terms of technical innovation and diversification of customer services. With the introduction of digital currencies, in which all the public would have access to settlement and payment services managed by the central bank, they would no longer have to access these services through commercial banks and use the latter's money to extinguish their obligations. The fact that the public will use the central currency, be it digital, will mean a lower liquidity risk because they should no longer be exposed to the risk of a large bank.

Increasing the efficiency of monetary policy, especially in times of recession, central banks promote low interest rates, even negative ones, to stimulate the economy, and commercial banks to avoid taxation/loss focus on converting liquidity, trying to convert money from bank deposits into cash. Specifically, when non-bank customers immobilize large amounts of currency in bank accounts (in order for the bank to avoid paying negative interest to the central bank), the latter will try to activate them in the direction of investments or current uses (payments) by commissioners, and holders, to avoid taxation, will try to convert them into cash. The existence of digital currency and the replacement of cash with it, would make the aforementioned conversions impossible and amplify the effects of monetary policies, and the non-existence of cash will reduce exceptions to the application of monetary policies (Dyson, Hodgsonm, 2016).

4. Digital currency infrastructure

National banking authorities (central banks) that aim to issue CBDCs (Auer et al, 2020) have four architectures in mind:

Direct CBDC. In this case, CBDC is a direct claim on the central bank, the payment system would be operated by the central bank, which would provide retail services. The central bank would also keep a record of all transactions and execute all retail payments.

Hybrid CBDC. This is an intermediate solution, running on two systems: (a) CBDC is a direct claim on the central bank, which also maintains a central register of all transactions and operates a technical backup infrastructure that allows it to restart payments in if the other intermediary systems record failures; and (b) the intermediaries handle retail payment and, therefore, manage the main payment system.

Intermediated CBDC. It is similar to the hybrid CBDC architecture, but the central bank keeps only a wholesale register and not a general register with all retail transactions. As with the hybrid system, the CBDC is issued by the central bank and is a receivable from the central bank, and payments are made by private intermediaries.

Indirect CBDC. In this case, the CBDC is provided indirectly through financial intermediaries, the consumer not being able to directly access the digital money issued by the central bank, the consumers having claims on these intermediaries, which operate all retail payments. These intermediaries must guarantee all their obligations to retail customers with claims on the central bank.

The source (Auer et al, 2020) indicates that four central banks would consider the direct model, which would improve financial inclusion, another seven would consider hybrid or intermediate options (in some cases alongside the direct option), and none, indirect architecture.

In the direct access approach, the central bank should provide each citizen with an account opened in their own records, which would also involve the issuance of payment cards, so that the money from these accounts can be used to make payments. In addition, customers would need a way to check their balance and transactions, so internet or mobile banking would be a minimum requirement. A dedicated branch network would be financially unviable, although agencies of other service providers could be used to interface with the general public (e.g. the post office branch network). The Central Bank should implement fraud prevention procedures and money laundering prevention regulations through these accounts. It should be noted that in 2015 the Central Bank of Ecuador implemented a draft of "electronic money" accounts for all citizens, but the system was stopped in 2018 (actually transferred to the private sector), because the system had not reached critical mass of users. The system assumed that the Central Bank of Ecuador (CBE) was the only electronic money issuer in the country and although central banks did not normally offer retail banking services, the people of Ecuador could still open

an electronic money account at CBE. Ecuadorian electronic money accounts could be opened remotely, using any mobile phone and national identity number. All taxes and fees paid by customers were set by the EPC. However, in financially advanced countries, the central banks of these countries are unlikely to take over the administration of accounts for the entire population because they would neglect their duties in regulating the activity of banks and managing monetary policy. There is also a perception that the state-owned central bank would compete with commercial banks for the provision of payment services. In addition, the impetus for innovation in the system would be missing.

That is why central banks are more likely to support approaches based on hybrid-intermediated architectures.

In this approach to indirect access, the central bank would create and keep track of the digital currency issued, but all payment services and, in general, customer relations would be provided or managed by private sector intermediaries. In this model, banks or technology companies, such as, for example, smartphone application developers (usually called DCA providers) would provide digital currency (DCA) accounts. DCA providers would be responsible for providing account statements and payments, cards, checks, banking and customer support. They would also be responsible for providing the interfaces through which the public holding the WFD would make payments to national settlement networks. So, from a technical point of view, DCA holders would spend digital currency as they do with currency in bank accounts. Any funds paid from the WFD would be denominated in the digital currency created by the central bank, which means that the holder of a WFD is always "completely liquid" and could pay their partners the full account balance at any time, while traditional banks can pay their customers only a fraction.

Digital currency held in a DCA would legally belong to the account holder and not to the DCA provider. That is, the digital currency would be held by the customer in a separate account at the central bank and would not appear in the balance sheet of the DCA provider. The DCA provider would only "manage" digital currency and never own it. It is a difference from traditional banks, because traditionally, when physical currency is deposited in a bank, it becomes the property of the depository bank, which in turn offers a bank deposit (which is an obligation of the bank to the depositor).

Another important consequence is that DCA providers would not hold their customers' digital currency and that these funds would be wholly owned by the central bank, DCA providers could never lend the customer's digital currency and expose it to risk. Therefore, DCA providers would not grant loans or overdrafts, and DCAs would be risk-free from this point of view. That is, just like physical currency.

Threats to DCA holders could be the possibility of fraud or the possibility of the DCA provider going bankrupt. But even so, DCA holders would not lose a penny, as the funds would be kept entirely at the central bank and could not be available for confiscation by the creditors of the DCA provider.

Because the funds in digital currency accounts would be kept at the central bank (they would be liabilities), as in the case of physical currency, they would be secured with risk-free assets.

The advantages of this architecture are that it minimizes the burden on the central bank by giving up the provision of account services and focusing on issuing digital currency and providing a payment system for it. This architecture is also market-oriented, because the provision of services would be done by competing companies, providing a competitive incentive that will encourage companies to innovate to improve and expand the services they offer.

5. Implications of the existence of two electronic currencies

With the introduction of digital currency issued by the central bank, there will be two “competing” electronic currencies: bank deposits, which have an electronic existence and are usable by electronic means and the new digital currency issued by the central bank (Dyson & Graham, 2016). These two forms of electronic money are almost equivalent and would be effectively in competition. Digital currency and bank deposits would be equivalent in a way that bank deposits and physical money have never been. Both digital currency and bank deposits would be connected to the electronic payment system and thus could be spent electronically. The choice for the consumer would no longer be between holding physical currency or electronic deposits, but between holding physical currency, electronic money issued by banks (deposits) or digital currency issued by the central bank.

The major difference between these two different forms of electronic money is that bank deposits have a risk above the level of the government guarantee (currently over €100,000 in Europe). This means that for those who have money in larger quantities, above the value covered by government guarantee, such as companies, digital currency can be more attractive because it is risk-free, regardless of the amount held. The same logic applies in the case of economic and financial crises when risks increase, depositors may find digital currency more attractive.

At the same time, it should be noted that the preference for digital currency issued by the central bank will decrease the value of existing deposits with commercial banks, thus a contraction of their balance sheets and, hence:

- a contraction in lending by commercial banks;
- lower liquidity of banks, because they will have fewer deposits to hold in reserve with the central bank;
- but at the same time, for commercial banks, smaller assets also at the same value as deposited capital, which means stronger banks with better solvency.

Another issue that arises in relation to the digital currency created by the central bank is whether it will be remunerated. The physical money issued by the central bank is not remunerated, but the account/electronic currency issued by the central bank (the reserves of commercial banks kept at the central bank) are remunerated, and the interest rate paid by the central bank to them is essential for monetary policy as they set the minimum interest rates at which banks lend to each other.

So the question arises as to whether the central banks should pay interest on digital currency, i.e. on the reserves that are held in DCAs.

If digital currency were not remunerated and central bank reserves (i.e. digital currency held by banks) continued to be remunerated, then this would give preferential treatment to those held by banks.

However, the remuneration of digital currency would create a number of significant problems:

- If its size reaches significant values, it is possible that it will have an impact on the central bank's finances/expenditures.
- The level of digital currency remuneration issued by the central bank may discourage open deposits with commercial banks, if the latter have lower remuneration than premiums and would force commercial banks to increase interest rates on deposits, affecting their profitability and making credit products more expensive.
- Furthermore, we should ask ourselves whether this remuneration will be received by the holder of the digital currency or will have to be transferred to the payment processor and the administrator of the digital currency account.

6. Explorations for the issuance of the central digital currency (CBDC)

Many central banks around the world have analysed the concept of a digital currency (Auer et al, 2020). For example, since 2014, the Central Bank of Ecuador has launched a project called “dinero electrónico” (electronic money) to allow individuals to make mobile payments through a system operated by a central bank. But, the system failed to attract a significant number of users and was discontinued in 2016.

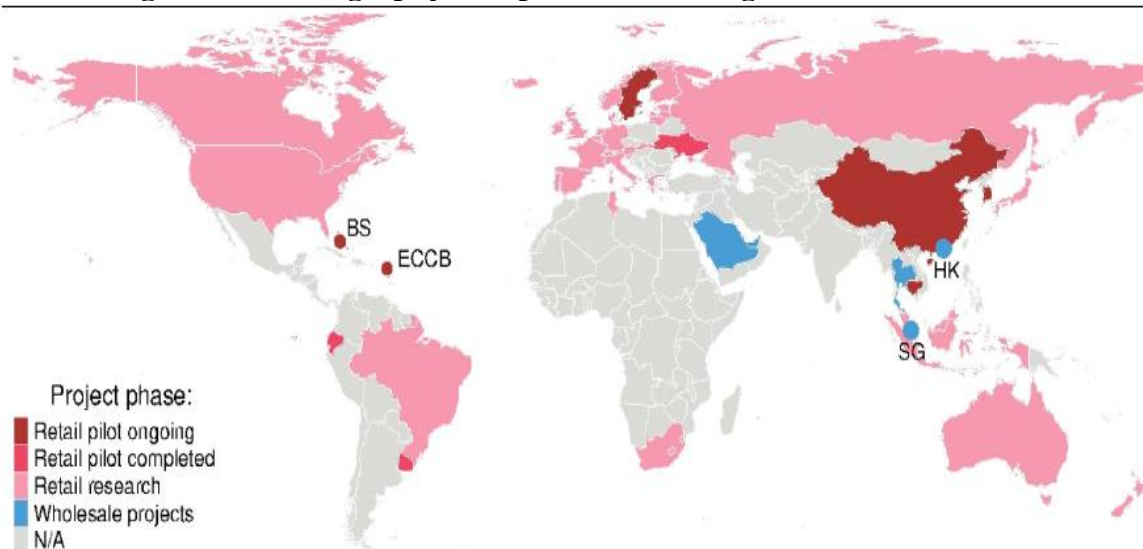
At the same time, with the growing popularity of Bitcoin and the distributed registry (DLT), a number of central banks have initiated projects to better understand DLT technology and its application in the issuance of central digital currencies (Alonso et al, 2020):

- In the Netherlands, the Netherlands Bank ("De Nederlandsche Bank", DNB) has been exploring the issuance of a currency based on distributed registers (DLT), called Dukaton, since 2015.

- The Bank of England, the Monetary Authority of Singapore, the Bank of Canada conducted similar domestic experiments, concluding that DLT was not yet mature enough to be used for major payments administered by the central bank.

- In March 2016, the Bank of England analysed the implications of issuing a CBDC.

Figure no. 1. Geography of explorations for digital central currencies



BS = The Bahamas; ECCB = Eastern Caribbean central bank; HK = Hong Kong SAR; SG = Singapore.

Source: Auer et al, 2020

- The Bank of Canada launched Project Jasper, which focused on using a DLT to settle high-value interbank payments.

- The Singapore Monetary Authority has launched its Ubin project, which focuses on interbank payments and a DLT currency.

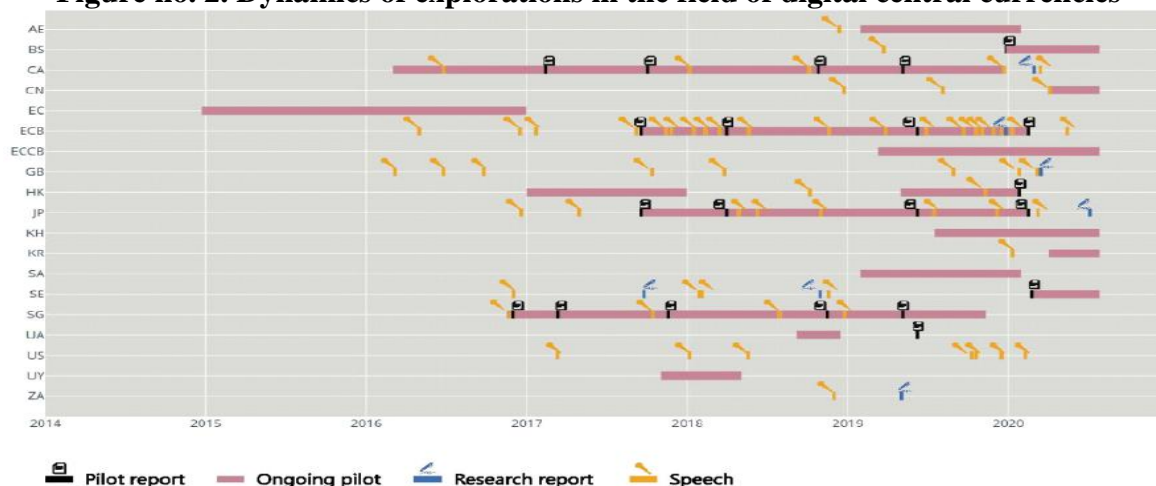
- The Hong Kong Monetary Authority launched the LionRock Project in January 2017, which explored the issuance of a DLT.

- In 2017 the European Central Bank (ECB) and the Bank of Japan launched the Stella Project for cooperation between two central banks on CBDCs, focusing on cross-border payments.

- The monetary authorities of Saudi Arabia, the United Arab Emirates, Hong Kong and Thailand announced in 2019 a cross-border project on CBDCs.

- Riksbank, the Swedish Central Bank, started a project a few years ago to issue a CBDC for the entire population, and in February 2020, Riksbank announced that it would initiate a project to develop a technical solution for an e-krona.
- The People's Bank of China has the most advanced project for a CBDC, as a currency available to the general public, including foreign visitors from China, and which is currently being trialled in four cities in China.
- Other CBDC exploration projects have also been announced by the Central Bank of the Eastern Caribbean, and the Central Bank of the Bahamas has even launched a pilot project to issue a Sand Dollar.

Figure no. 2. Dynamics of explorations in the field of digital central currencies



Source: Auer et al, 2020

The Covid-19 pandemic, which has changed payment-related behaviours, stimulated greater use of digital payments and could have wider effects in the future, has accelerated work on CBDC issuance in many countries:

- In the United States, bodies adjacent to Congress have drafted a bill for a "digital dollar," and the Federal Reserve has continued its research on CBDCs for the population.
- In China, pilot testing for the new CBDC has begun with the phasing out of pandemic mobility restrictions.
- In Sweden, e-krona testing has continued.

7. CBDC examples

People's Bank of China's (PBC) project. CBDC development efforts in China began in 2014 (Auer et al, 2020), and in late 2019, PBC announced that it would conduct a pilot study for a retail CBDC. On April 20, 2020, PBC confirmed that pilot tests were underway in: Shenzhen, Suzhou, Chengdu, Xiong'an and the "2022 Winter Olympics Office Area" in Beijing. In China, the introduction of a CBDC should be seen in the context of a high level of digital economy and the widespread use of private digital payment services. If the decision is to go beyond the current pilot stage, the Chinese CBDC will become a counterpart to the central banknotes and coins and deposit accounts. The Chinese CBDC is not intended to replace physical money in its entirety, and the architecture of the issue describes it as a "hybrid CBDC", in which the issuance belongs to PBC and the payment services are operated by intermediaries (called "authorized operators"). The central bank receives and periodically stores a copy of its holdings and transactions. The backbone of the Chinese CBDC infrastructure would be a mixed system with conventional database and distributed registry (DLT), PBC adding that DLT is not yet mature enough for such a large application. To settle

transactions, the system must be able to host 300,000 transactions per second (TPS). The system would be a retail one, non-residents (e.g. tourists and business travellers) could access the CBDC with a foreign mobile phone number for an entry-level wallet.

The e-krona project of Sveriges Riksbank. First of all, it is the oldest project. Its foundations have been laid since 2014 (Auer et al, 2020). The Swedish CBDC is designed as a supplement, not as a money substitute. The architecture designed by Riksbank reveals a hybrid CBDC. CBDC is a direct claim on Riksbank and payments are made by payment service providers. The infrastructure and technical implementation are based on a distributed register, and the system is presented as a decentralized database of all e-krona transactions in circulation at a given time, and Riksbank verifies all transactions before completion. The CBDC access technology issued by Riksbank is based on the classic account (Riksbank issues CBDC, which are stored in wallets at intermediaries, and access to the wallet is based on the identification of the wallet owner), but an option for low value prepaid cards is also considered. Non-residents (e.g. tourists) could access the system by using prepaid cards for small purchases.

Bank of Canada and its CBDC. Despite its early start (2014), the Bank of Canada has so far not announced that it is developing a pilot project for its CBDC. Instead, it has detailed a plan under which Canada should develop a CBDC (Auer et al, 2020). The Bank of Canada has considered (i) a scenario in which the use of physical money is reduced or eliminated altogether and (ii) a scenario in which private cryptocurrency becomes essential as a means of payment. Thus, the Canadian CBDC would be a receivable in Canadian dollars from the Bank of Canada, which explores three potential architectures, which correspond to "direct CBDC" (Bank of Canada provides the entire CBDC payment system), "hybrid CBDC" (Bank of Canada issues CBDC, and private sector intermediaries provide end-user services) and "intermediated CBDC" (identical to the hybrid model, but the Bank of Canada does not have full access to the trade register). Although there were no details about the infrastructure, it should be noted that the Bank of Canada has experience in using distributed registers (DLT).

Digital euro. The Governing Council of the European Central Bank (ECB) set up a high-level working group in January 2020 to analyse the prospects for a central bank digital currency (CBDC) in the euro area, which presented in November 2020 (ECB, 2020) a report on this topic. The report considers that a digital euro would be just another way of providing the euro, not a parallel currency, and should therefore be convertible into other forms of the euro, such as banknotes, central bank reserves and commercial bank deposits. A digital euro would also be a responsibility of the Eurosystem, and therefore risk-free central bank money. The digital euro should be widely accessible, on an equal footing, to potential users in all euro area countries and supervised private intermediaries should be able to use their expertise and participate in the provision of payment and new services, this new form of currency should not discourage nor eliminate private solutions for digital retail payments in the euro area.

The report states that the Eurosystem should consider introducing instruments to limit the use of the digital euro and to prevent the excessive conversion of commercial banks' money into digital euros. The amount of digital euro that individual users may hold would be maintained in such a way that the overall value of the digital euro in circulation remains below a reasonable threshold, which means that digital euro users are identified and anonymity would not be possible. Also, if the holding limit is exceeded, the surplus would be automatically transferred to the payee's account, but in private money. The report also explores the solution of a digital euro with restricted access, but usable internationally, for non-EU citizens visiting euro area countries.

A digital euro could be provided either through an account-based system or as a bearer instrument.

In an account-based system, user holdings would be recorded by a third party who would determine, on behalf of the payer and the payee, whether a transaction is valid and would update the balances of the two. This would allow the ECB, which issues CBDCs, to control transaction flows (either directly or through supervised intermediaries), but this system could not be used if users or the central third party are not online.

When using the digital euro variant on the bearer, the payer and the payee would be responsible for verifying any transfer of value between them, and the system would fall outside the direct control of the Eurosystem or its supervised intermediaries and would mean, *inter alia*, that holdings and value of international transactions are limited. In addition, in the case of payments using bearer instruments, it would be necessary to require that only authorized users participate in transactions, whose payment devices would require the parties to validate their identity through the physical attributes of the intended user (biometric data, e.g. fingerprint and iris recognition). An electronic payment that is not confirmed online - either through the user network or in a central register - can be considered final only based on reliable hardware devices/equipment. This would be the offline functionality, which avoids sharing the details of the transaction with parties other than the payer and the payee, and the equipment would take the form of smart cards, mobile devices and payment terminals. Payment could be settled immediately as a transfer between devices preloaded with digital euro units of the payer and the payee.

The basic infrastructure for providing a digital euro could either be centralized, with all transactions recorded in the central bank register, or have some decentralization of responsibilities to supervised users and/or intermediaries, thus allowing the provision of a digital euro to the bearer. Regardless of the approach, the back-end infrastructure should ultimately be controlled by the central bank. The main difference between a direct and intermediate model is the role of the private sector. While in a direct model, supervised intermediaries are mere administrators, in an intermediate model, they would play a more important role, including that of settlement agents.

8. Conclusions

In order to increase their acceptance and use, digital currencies based on distributed registers must offer end users a number of benefits over traditional services: security, minimum costs, ease of use, minimum volatility, transaction irrevocability, high transaction processing speed, cross-border coverage and data confidentiality.

Other factors have limited the development of digital currencies, such as fragmentation, scalability and low efficiency, pseudonymity, low sustainability of the business model.

The main reasons why a central bank might issue a digital currency along with the physical currency are the decline in use of physical money, the implications of alternative financing on money creation, declining central bank revenues from "seigniorage", increasing financial inclusion, increasing financial stability by reducing liquidity risk, increasing the efficiency of monetary policy.

National banking authorities (central banks) that intend to issue CBDC have four architectures in mind: a direct CBDC (CBDC is a direct claim on the central bank, the payment system would be operated by the central bank, which would provide retail and the central bank would keep track of all transactions and execute all retail payments), hybrid CBDC (an intermediate solution, running on two systems: (a) CBDC is a direct claim on the central bank, which also keeps a central register of all transactions and operates a technical back-up infrastructure that allows it to restart payments if other intermediary

systems are down and (b) intermediaries that handle retail payments and, therefore, manage the main system of transactions, intermediated CBDC (similar to hybrid CBDC, but the central bank keeps only a wholesale register and not a general register retail), indirect CBDC (CBDC is provided indirectly through financial intermediaries, the consumer not being able to directly access the digital money issued by the central bank, consumers having claims on these intermediaries, which operate all retail payments).

With the introduction of digital currency issued by the central bank, we will have two "competing" electronic currencies: bank deposits, which have an electronic existence and are usable by electronic means and the new digital currency issued by the central bank, which will be almost equivalent and will effectively be in competition. Another issue that arises in relation to the digital currency created by the central bank is whether it will be remunerated.

Many central banks around the world have looked at the concept of a digital currency. As early as 2014, the Central Bank of Ecuador launched a project called "dinero electrónico" (electronic money) to allow individuals to make mobile payments through a system operated by a central bank, but the system failed to attract a significant number of users and was discontinued in 2016. The Covid-19 pandemic that changed payment-related behaviours, stimulated greater use of digital payments and could have broader effects in the future, accelerated work on CBDC issuance in many countries.

The most advanced projects to create a central digital currency are the People's Bank of China's (PBC) project, the Sveriges Riksbank e-krona project, the Bank of Canada's project, and the digital euro.

Finally, the exploration of a digital euro should be mentioned. Thus, the Governing Council of the European Central Bank (ECB) set up a high-level working group in January 2020 to analyse the prospects of a digital currency of the central bank (CBDC) in the euro area, which presented a report on this in November 2020. The report considers that a digital euro would be just another way of providing the euro, not a parallel currency, and should therefore be convertible into other forms of the euro, such as banknotes, central bank reserves and commercial bank deposits.

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FOREIGN DIRECT INVESTMENT VS. HEALTH CRISIS

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Abstract: *Countries' economic growth cannot be achieved without investment. A country can make investment in accordance with the level of public financial resources and also with the prioritization of social needs which means that, during certain periods of time, there are not enough funds, and other resources are resorted to. Thus, foreign direct investment is a way of generating development as it is an important feature of the world economy as a result of globalization. In the current pandemic context which has affected all sectors ranging from education to agriculture, from health to industry, from culture to services, it was certain that the level of foreign direct investment would also be affected. The current study, which is based on the critical analysis of specialist literature and reports of specialist institutions, aims at identifying the impact of the health crisis on foreign direct investment both worldwide and in Romania.*

Key Words: *foreign direct investment, portfolio investment, economic growth, greenfield, economic restructuring.*

JEL Classification: F21, F65.

1. Introduction

Nowadays, globalization is an indisputable fact: we are in Romania but we can buy a phone made in China, buy clothes from a company in Spain but maybe also made in Romania, sell tablets made in China, too, eat Lebanese products and so on and so forth. Globalization, an adored or criticized phenomenon, has generated foreign investment that is now a major player in the national-global ratio.

During the current times, the economic and social development of a country can no longer be regarded locally or nationally but also globally. Supporting a viable economy requires capital, namely investment. Investment made in various forms (building on an empty site, purchasing a company, buying financial instruments, etc.) can pursue various objectives: from holding control to speculations made in order to get profit. Taking into account the market the investment is made on, one can identify domestic investment made in the country of origin and foreign investment, i.e. "*acquisition of foreign assets outside the country of origin*" (Marin, 1996).

An international investment implies two partners, economic agents, one being the issuer's representative and the other being the receiving agent of the investment.

An investment is defined as the use of an asset as capital in order to get profit.

It is assumed that when an investment involves transferring to the investing company the possibility of control and decision upon the activity of the foreign company the investment is made in, that is foreign direct investment. The Organization for Economic Co-operation and Development has defined foreign direct investment as a reflection of the objective of obtaining a long-term interest in an entity residing in an economy (referred to as a "direct investment enterprise") by an entity residing in another economy (referred to as a "direct investor"), and that interest involves a long-term relationship between the direct investor and the direct investment company as well as a significant degree of investor influence over the management of the investment receiving company.

If an investment does not involve such a ratio except only for the participation in decision-making, that is a portfolio investment. A portfolio investment is always a purely financial placement, a financial investment.

In most cases, classifying a foreign capital investment within either of the two categories is extremely difficult and depends on the legislation in the countries subject to analysis. For example, in the USA, the category of foreign direct investment includes all transactions that transfer ownership from one foreign entity to another of at least 10% or more of the shares issued by a company (Melvin, 2004), in France, the percentage is 20%, and in Germany it is 25% (Anghel, 2002). A portfolio investment can turn into a direct investment, given that a minority stake turns into a majority (Dumitrescu and Bal, 2002).

The elements that allow to make the difference between direct investment and portfolio investment take account of the objectives pursued (greenfield investment or the acquisition of assets of an already-existing company), the degree of control held within the company where the investment has been made, participation in the decision-making system (Pop and Postelnicu, 2000).

According to J.H. Dunning, investment motivation lies in identifying the resources needed to carry out activities, identifying new markets or protecting the positions already held in certain markets, namely identifying the investment that generates efficiency. Starting from such motivations of the decision to make a foreign direct investment, the factors influencing such action can be identified, that is: the size of the market and also its absorption capacity, the opportunity for growth, costs, taxation level, labour market characteristics, incentive policy of international trade (Horobăţ and Popovici, 2017).

Foreign direct investment is a form of investment that involves a long-term connection reflecting the long-term interest and control of an entity residing in an economy over an economic entity residing in another economy. Foreign direct investment implies that the investing company exerts an important influence on the management of the foreign enterprise. Foreign direct investment flows *"are just a part of the investment flows attached to the foreign subsidiaries of transnational corporations"* (Voinea, 2001).

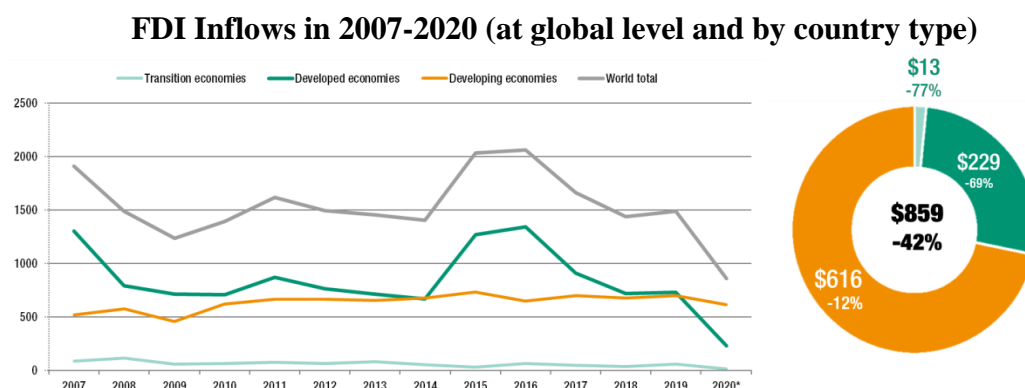
An interesting survey that highlights the factors considered by transnational corporations when deciding to make direct investment was conducted in 2020 by Farok J. Contractor, Dangol R., N. Nuruzzaman, S. Raghunath. The survey authors describe the investment decisions of TNC's as a cyclical system that has a long-term view in relation to initial investment, subsequent operations and profit repatriation. A country's attractiveness to a TNC in order to make a foreign direct investment lies in two elements: the ease with which the trade of the country in question is being carried out internationally and also the power of contracts. The survey shows that elements such as easy entry and easy exit from the market are not considered important in the decision of a foreign direct investment by a TNC (Contractor et al., 2020). For example, the authors present the case of Apple which decided to make a foreign direct investment in India no sooner than mid-2018, although that country had been regarded for many years as a market where production could be relocated due to the labour force costs that meant $\frac{1}{4}$ of the costs involved in assembly operations in China. India has relaxed its foreign direct investment policies quite recently and provided that at least 30% of the raw materials used should come from local producers. Unfortunately, transferring an activity to India brings obstacles both in terms of safety in Indian ports and in terms of labour law, trade unions and contract applicability.

The implications of analyses on foreign direct investment consider the advantages and benefits for recipient countries. Thus, specialists appreciate (Moraru, 2013) that foreign direct investment adds value in the process of achieving economic growth, in ensuring a high level of employment, in ensuring the income of the population, and also of public financial resources as a result of fees, taxes, contributions that constitute the state budget. Foreign direct investment is a way to finance activities without increasing foreign debt.

2. The Pandemic and Its Effect on Foreign Direct Investment

The COVID-19 crisis has had and still has immediate effects on FDI. The abrupt and simultaneous supply disruption along with demand shocks combined with political reactions to the crisis around the world have triggered several effects on FDI. The current global situation generated by the pandemic contributes to a completely different approach to investment markets by the transnational corporations.

Graph 1



Source: UNCTAD, Investment Trends Monitor, no. 38 <https://unctad.org/webflyer/global-investment-trend-monitor-no-38> [accessed on 22 March 2021]

Foreign direct investment decreased by 42% in 2020 compared to 2019, with the largest decline in developed countries. For 2021, forecasts are equally gloomy, that is it is estimated to decrease as a result of the health crisis and steps taken in each country regarding the quarantine of its citizens, the frailty of macroeconomic indicators, different situations in individual countries with regard to vaccination, the legislative unpredictability of the investment system.

Table 1

Change in FDI Inflows in 2016-2019 (Million Dollars)

Economy	2016	2017	2018	2019
Worldwide	1 983 477.9	1 700 467.6	1 495 222.6	1 539 879.7
Developed countries	1 265 245.0	950 149.8	761 391.4	800 239.1
Europe	674 829.2	569 779.9	363 657.6	429 213.5
Developing countries	651 978.5	700 636.4	699 305.6	684 723.3
Transition countries	66 254.4	49 681.4	34 525.6	54 917.3

Source: drawn up according to data available at <https://worldinvestmentreport.unctad.org/annex-tables/> [accessed on 23 March 2021]

As far as foreign direct investment flows are concerned, the analysis allows highlighting the following issues:

- FDI inflows to developed countries (in 2019) represent 41.97% of total FDI inflows worldwide, down from 2016 when they held 63.79% of total FDI;
- FDI inflows to developing countries increased by \$48657.9 million in 2017 and then decreased as they did in the other categories of countries under analysis;
- Countries in transition reported a decrease in FDI inflows in 2017 and 2018, but in 2019 there was a substantial increase, namely of 59.06% compared to 2018.

Table 2 Change in FDI Outflows in 2016-2019 (Million Dollars)

Region (million Dollars)	2016	2017	2018	2019
Worldwide	1 543 239.4	1 600 984.3	986 351.3	1 313 769.6
Developed countries	1 103 818.3	1 095 155.0	534 027.9	916 879.0
Europe	572 000.2	539 475.0	418 737.6	474 994.1
European Union	448 425.9	511 816.4	345 279.8	455 245.3
North America	358 767.6	378 726.0	- 40 743.5	201 501.2
Developing countries	414 234.4	467 356.6	414 746.7	373 102.3
Africa	3 953.0	12 025.3	8 156.8	5 336.9
Asia	399 356.8	416 980.3	406 741.1	327 588.0
Transition economies	25 186.7	38 472.7	37 576.7	23 788.4

Source: <https://worldinvestmentreport.unctad.org/annex-tables/> [accessed on 23 March 2021]

The data show a decrease in foreign direct investment made both globally and in various categories of countries. Thus, with regard to FDI outflows:

- developed countries - invested less in the period under analysis, namely from \$1,103,818.3 million to \$916,879.0 million, i.e. a decrease of 16.94%;
- developing countries - the investment flows that started from those countries decreased in 2019 compared to 2016 by 9.92%;
- transition economies – their decrease was 5.55%.

The data provided by UNCTAD on US foreign direct investment rank first in terms of foreign direct investment inflows of \$246 billion, followed by China with \$141 billion and Singapore with \$92 billion (Table no.3).

Table 3. FDI Inflows

Country	Inflows		Assets
	Billion Dollars	% GDP	% GDP
USA	246	1.1	43.9
China	141	1	12.4
Singapore	92	25.5	469.3
The Netherlands	84	9.3	193.3
Ireland	78	4.0	35.3
Brazil	72	4.0	35.3
Honk Kong	68	18.5	506.5
UK	59	2.1	73.6
India	51	1.7	14.0
Canada	50	2.9	59.8

Source: the table has been drawn up by the authors according to the information in UNCTAD Handbook of Statistics 2020 - Economic Trends, available at https://unctad.org/system/files/official-document/tdstat45_en.pdf [accessed on 26 March 2021]

In terms of foreign direct investment made outside a country of origin, ranking first are Japan with \$227 billion, the USA with \$125 billion and the Netherlands with \$125 billion (Table 4)

Table 4. FDI Outflows

Country	FDI outflows		Assets
	Billion Dollars	% GDP	% GDP
Japan	227	4.5	35.7
USA	125	13.8	35.8
The Netherlands	125	13.8	283.3
China	117	0.8	14.8
Germany	99	2.6	45.0
Canada	77	4.4	95.3
Honk Kong	59	16.1	486.5
France	39	1.4	56.7
Korea	36	2.1	26.5
Singapore	33	9.2	305.8

Source: the table has been drawn up by the authors according to the information in UNCTAD Handbook of Statistics 2020 - Economic Trends, available at https://unctad.org/system/files/official-document/tdstat45_en.pdf [accessed on 26 March 2021]

The process of foreign acquisitions and mergers is an important element of transnational companies' strategies to expand international production and a major factor in increasing the flow of foreign direct investment.

Table 5. Change in International Mergers and Acquisitions

Sector/industry	2016	2017	2018	2019
Total	886 901	693 962	815 726	490 778
Primary sector	82 965	24 482	39 089	33 516
Agriculture, forestry, fishing	4 134	1 954	796	1 479
Oil exploitation and transport	78 832	22 528	38 294	32 038
Industry	405 882	326 811	307 097	242 538
Manufacture of chemicals	25 724	58 513	119 325	35 028
Manufacture of pharmaceutical chemicals and pharmaceuticals	104 597	78 169	57 519	97 757
Manufacture of computers, optical electronic products and electrical equipment	75 036	25 584	42 197	20 783
Manufacture of machinery and equipment	31 551	51 580	4 399	5 545
Services	398 054	342 669	469 539	214 723
Electricity and heat, gas, hot water and air conditioning	66 434	54 161	38 047	12 157
Construction	5 327	4 278	7 223	5 001
Trade	50 346	12 015	34 617	13 082
Transport and storage	44 106	22 270	46 356	20 080
Hotels and restaurants	10 609	20 451	7 788	12 217
Information and communications	44 421	78 275	116 087	20 859
Financial brokerage and insurance	97 102	58 861	108 394	48 488
Real estate transactions	28 049	38 184	57 447	30 226

Professional, scientific and technical activities	16 451	10 575	7 457	21 734
Administrative and support service activities	11 694	19 212	21 884	13 596
Public administration and defence, in public system social insurance	625	96	44	-
Education	450	545	314	428
Health and social work	14 099	9 080	7 819	10 311
Entertainment, cultural and recreational activities	7 185	11 442	15 293	5 973
Other service activities	1 155	3 223	766	571

Source: the table has been drawn up by the authors according to the information in UNCTAD, World Investment Report, available at <https://worldinvestmentreport.unctad.org/annex-tables/> [accessed on 24 March 2021]

Regarding company mergers and acquisitions as a form of foreign direct investment, there are decreases in 2017 compared to 2016, namely in 2019 compared to 2018 as follows:

Industry

- The chemical industry which reported a substantial increase in 2017 and 2018 compared to 2016 by 127.46% (2017-2016), namely by 363.87% (2018-2016). The extraordinary growth rate is followed by a very large decrease in 2019, that is by 84297 million dollars, i.e. a 70.64% decrease compared to 2018.

- Another sector in the category of manufactures that reported an important negative change is machinery and equipment. Thus, the year 2018 brought along a 91.47% decrease compared to 2017, followed by a slight increase in 2019, but their level did not approach that of 2016.

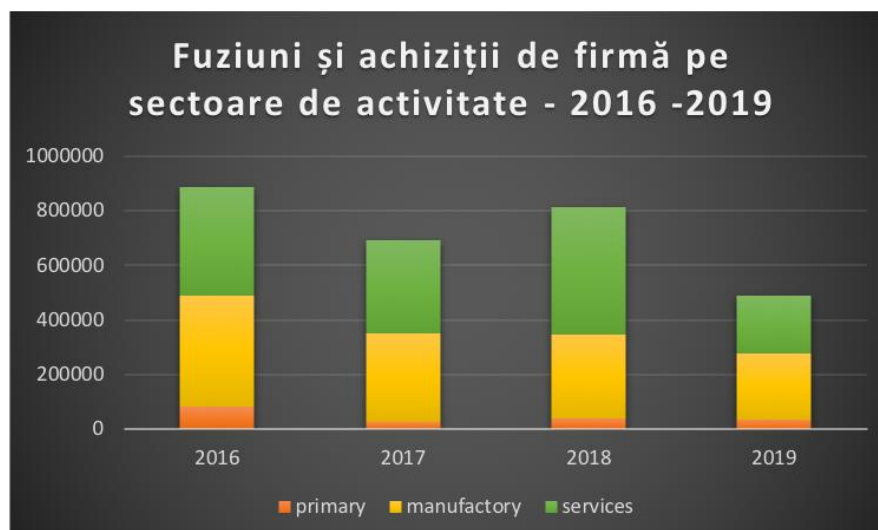
Services

- Also in terms of services, the year 2019 brought decreases compared to 2018 for the vast majority of service categories;

- The most important decreases were reported in trade: decrease by 62.21% compared to 2018; in the communications sector by 82.03% compared to 2018; in financial and insurance services a decrease by 55.27% compared to 2018;

- Services that increased in 2019 compared to 2018 are: professional, scientific and technical activities; administrative activities and support services; education, health and social activities.

Graph 3



Source: drawn up by the authors according to the data included in Table 5

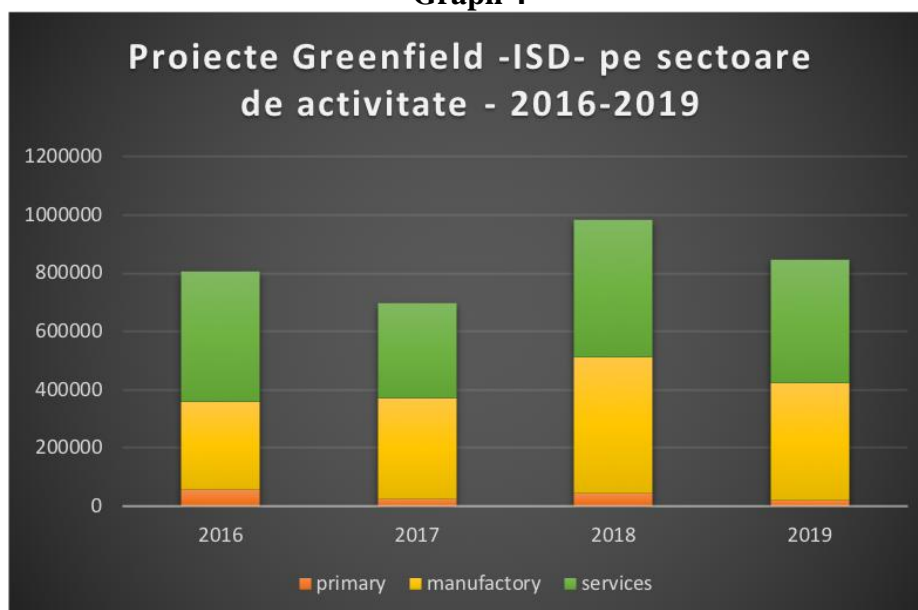
If foreign direct investment made in the form of greenfield projects is analyzed, the change indicates a 49.90% orientation of foreign direct investment in 2019 to the services sector, 47.56% to the industry and hardly 2,535 to agriculture.

Table 6. Change in Foreign Direct Investment in the Form of Greenfield Projects

Sector/industry	2016	2017	2018	2019
Total	808 386	699 077	982 455	845 921
Primary sector	55 617	23 635	45 752	21 430
Industry	301 863	348 762	468 103	402 313
Chemical industry	44 414	64 195	82 997	46 898
Manufacture of computers, optical electronic products and electrical equipment	45 392	61 374	60 678	52 812
Motor vehicles and other means of transport	56 242	59 914	74 432	62 350
Services	450 906	326 679	468 600	422 178
Supply with power, gas, steam and air conditioning	117 212	87 975	92 010	113 244
Construction	123 380	59 838	112 345	66 390
Trade	14 119	20 538	24 162	22 148
Transport and storage	48 735	37 115	44 051	42 896
Information and communications	63 095	61 984	75 879	66 124
Financial and insurance activities	21 961	20 690	24 370	23 587

Source: the table has been drawn up by the authors according to the information in UNCTAD, World Investment Report, available at <https://worldinvestmentreport.unctad.org/annex-tables/> [accessed on 24 March 2021]

Graph 4



Source: drawn up by the authors according to the data included in Table 6

Knowing that foreign direct investment is made by transnational companies, the analysis herein aimed to highlight the most important non-financial TNC's of 2019, as per foreign assets (Table no. 7). In UNCTAD reports, a transnational company is defined as an economic entity consisting of a parent company and its subsidiaries abroad.

Table 7. Top 10 TNC's – as per Foreign Assets (2019)

Ranking	TNI ¹	TNC	Country	Assets		Sales		Employees	
				foreign	total	foreign	total	foreign	total
1	19	Royal Dutch Shell plc	UK	376 417	402 681	276 518	331 684	59 000	83 000
2	46	Toyota Motor Corporation	Japan	307 538	485 422	187 768	275 390	227 787	359 542
3	22	BP PLC	UK	259 860	295 194	215 203	278 397	58 900	72 500
4	41	Softbank Group Corp	Japan	253 163	343 306	29 286	56 910	55 272	74 953
5	27	Total SA	France	249 678	273 865	137 438	175 985	71 456	107 776
6	54	Volkswagen Group	Germany	243 469	548 271	227 940	282 776	374 000	671 000
7	17	Anheuser – Bush In Bev NV	Belgium	192 138	237 142	44 352	52 251	148 111	171 915
8	29	British American Tobacco PLC	UK	184 959	186 194	25 232	32 998	31 196	53 185
9	60	Chevron Corporation	Germany	179 506	339 742	163 875	193 357	124 842	298 655

¹ TNI means Transnationalization Index calculated as an average of three ratios: the ratio between overseas assets and total assets, the ratio between overseas sales and total sales, the ratio between overseas employees and total employees.

10	78	Exxon Mobil Corporation	US	172 830	237 428	75 591	140 156	22 800	48 200
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Source: <https://worldinvestmentreport.unctad.org/annex-tables/> [accessed on 23 March 2021]

Table 8. Activity of Top 10 TNC's

Corporation	Home economy	Industry ^c
Royal Dutch Shell plc	United Kingdom	Mining, quarrying and petroleum
Toyota Motor Corporation	Japan	Motor Vehicles
BP plc	United Kingdom	Petroleum Refining and Related Industries
Softbank Group Corp	Japan	Telecommunications
Total SA	France	Petroleum Refining and Related Industries
Volkswagen Group	Germany	Motor Vehicles
Anheuser-Busch InBev NV	Belgium	Food & beverages
British American Tobacco PLC	United Kingdom	Tobacco
Daimler AG	Germany	Motor Vehicles
Chevron Corporation	United States	Petroleum Refining and Related Industries

Source: <https://worldinvestmentreport.unctad.org/annex-tables/> [accessed on 23 March 2021]

Analyzing data issued by UNCTAD regarding the top 10 transnational companies allowed for the highlighting of the following elements:

- 3 of them originate in Great Britain, 2 in Japan and 2 in Germany;
- 3 of them operate in the oil industry (Royal Dutch Shell which was number 1 in 1992 ranks among ten transnational companies), 3 in the automotive industry;
- from the staff point of view, the vast majority of employees are located across country borders which indicates the impact of transnationalization upon the labour force in host countries, namely creating new jobs and accessing the areas that generate lower costs.

The data issued by UNCTAD regarding the geographical positioning of transnational companies in developing or transition countries indicate the hegemony of China which holds 7 out of 10 rankings (Table 9), it is a country that has two systems but has succeeded in becoming an important player in the world economic market. Asia has consolidated its dominance in the ranking.

Table 9. Top 10 TNC's in Developing or Transition Countries

No.	TNC	Origin country	Activity
1	CK Hutchison Holdings Limited	Hong Kong	Retail Trade
2	China National Petroleum Corp (CNPC)	China	Mining, quarrying and petroleum
3	Hon Hai Precision Industries	Taiwan	Electronic components
4	Sinopec - China Petrochemical Corporation	China	Petroleum Refining and Related Industries
5	Samsung Electronics Co., Ltd.	South Korea	Communications equipment
6	China COSCO Shipping Corp Ltd	China	Transport and storage

7	Tencent Holdings Limited	China	Computer and Data Processing
8	China National Offshore Oil Corp (CNOOC)	China	Mining, quarrying and petroleum
9	Sinochem Group	China	Chemicals and Allied Products
10	China National Chemical Corporation (ChemChina)	China	Chemicals and Allied Products

Source: <https://worldinvestmentreport.unctad.org/annex-tables/> [accessed on 23 March 2021]

Foreign Direct Investment in Romania

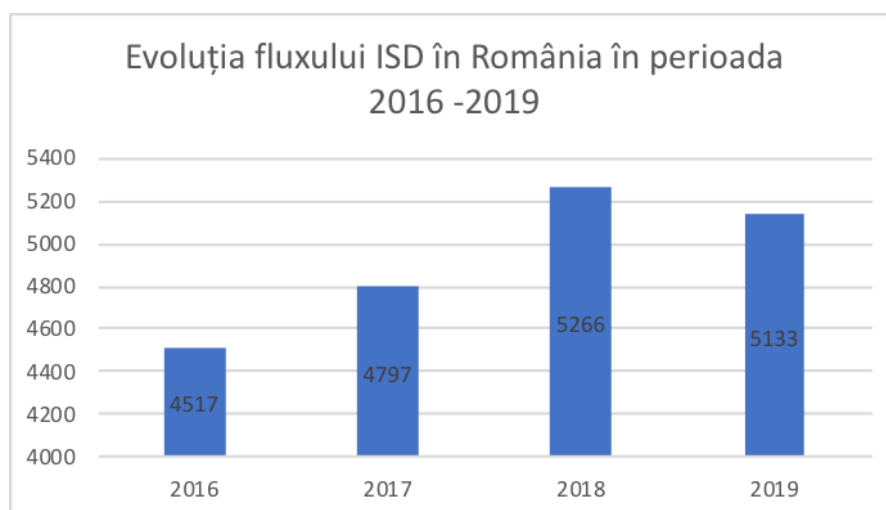
The data issued by the National Bank of Romania in the Report on *Foreign Direct Investment in Romania in 2019* show a net flow of foreign direct investment in 2019 reaching 5,173 million Euros, decreasing by 93 million Euros as compared to 2018, i.e. a share of 2.3% of GDP (Table 10)

Table 10. Change in FDI Flow in Romania in 2016-2019

Indicator	2016	2017	2018	2019
FDI flow	4517	4797	5266	5133
GDP (million Euros)	170378	187801	204684	223342
FDI flow/GDP	2.7	2.6	2.6	2.3
Population (million inhabitants)	19.71	19.54	19.48	19.37
FDI flow/inhabitants	229	245	270	267

Source: drawn up according to the information included in *NBR, Foreign Direct Investment in 2019* available at <https://www.bnr.ro/PublicationDocuments.aspx?icid=9403> [accessed on 23 March 2021]

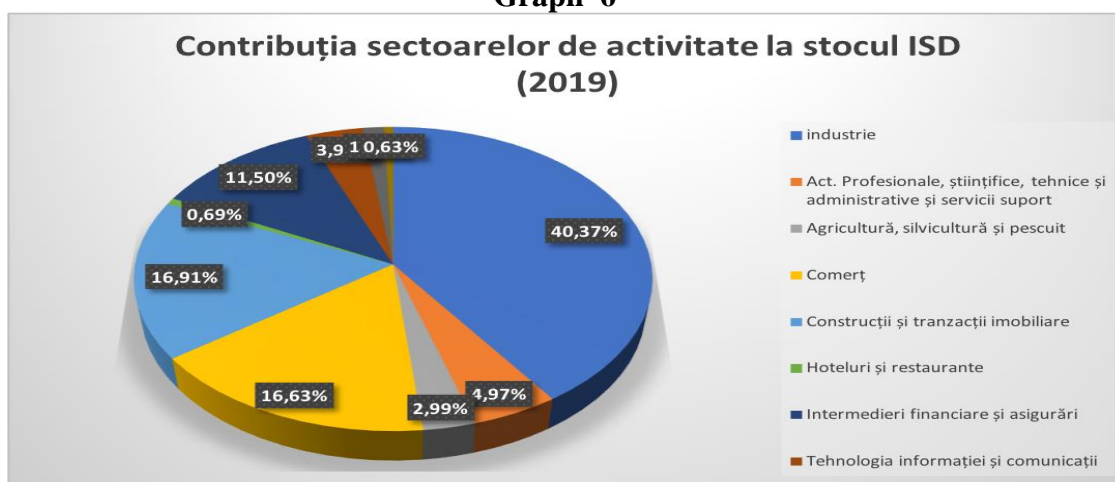
Graph 5



Source: drawn up according to the data in Table 10

Regarding the foreign direct investment stock and its distribution by economic activity branches, it is seen that the largest share in 2019 is held by industry with 40.37% followed by construction and transport with 16.91%, trade - 16.63%; financial brokerage and insurance - 11.5%.

Graph 6



Source: drawn up according to the data included in *NBR, Foreign Direct Investment in 2019* available at <https://www.bnr.ro/PublicationDocuments.aspx?icid=9403> [accessed on 24 March 2021]

As far as the distribution of FDI by regions is concerned, the evidence indicates a concentration of them in the Bucharest - Ilfov region with 62.7%, followed by the Central Region with 8.7%, the Western Region with 7%, SOUTH - Muntenia with 6.4%, North - West with 5.8%, South-East with 4.5%, South-West-Oltenia with 2.9% and North-East with 2%.

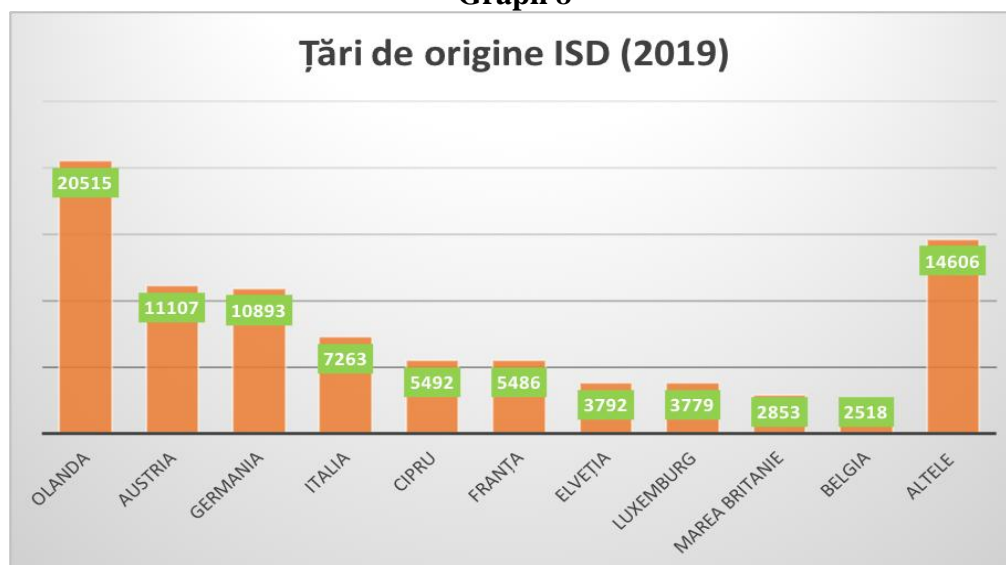
Graph 7



Source: *NBR, Foreign Direct Investment in 2019* available at <https://www.bnr.ro/PublicationDocuments.aspx?icid=9403> [accessed on 24 March 2021]

Regarding the origin countries of foreign direct investment, the Netherlands ranks first with 20 515 million Euros, followed by Austria with 11107 million Euros and Germany with 10893 million euros.

Graph 8



Source: drawn up according to *NBR, Foreign Direct Investment in 2019* available at <https://www.bnr.ro/PublicationDocuments.aspx?icid=9403> [accessed 24 March 2021]

Foreign direct investment generates a series of benefits to the recipient among which there are: contribution not only with capital, but also with intellectual property elements of know-how that will generate long-term added value for the receiving economy (Corodan, 2012).

3. Conclusions

Foreign direct investment, a way to intensify the activity of transnational companies which are important factors of globalization, certainly generates many benefits to the countries receiving such investment:

- TNC's provide employees with higher salaries than the national average; jobs are being created at a faster rate than domestic companies could provide;
- TNC's unfold programmes by which they increase the efficiency of employees' performance by investing in training activities, by ensuring work safety, by creating adequate working conditions that comply with the legislation;
- TNC's provide huge budgets for research and development activities unlike domestic companies that cannot support such expenses or even in relation to the government;
- Transnational companies have higher exports than domestic companies do which also generates macroeconomic benefits for the countries where they operate.

Foreign direct investment (FDI) provides a means to create direct, stable and long-lasting relations between economies. In the right political environment, it can serve as an important vehicle for the development of local enterprises and can also contribute in improving the competitive status of both a beneficiary ("host") and an investment economy ("home"). FDI particularly encourages technology and know-how transfer between economies. It also provides an opportunity for a host economy to promote its products on a larger scale in international markets. FDI, in addition to its positive effect on the development of foreign trade, is an important source of capital for numberless host and home economies.

In this game of benefits and disadvantages brought about by foreign direct investment, countries must try, as Friedman Thomas said, *to build a better Lexus and*

launch it on the world market yet without the illusion that merely participating in the global economy is enough to heal an economy.

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