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CONTENT

Nicoleta ARDELEANU (TRIFU), Isabela-Raluca BOGASIU (ANTON)	INTERNAL AUDIT - ACTIVE INSTRUMENT IN PERFORMANCE EVALUATION DECISION MAKING SYSTEM	6-10
Leliana Diana BOLCU, Andreea-Cristina SAVU	THE DIGITALIZATION OF THE TAX ADMINISTRATION AND THE IMPLEMENTATION OF THE SAF-T STANDARD	11-18
Cristina Aurora BUNEA-BONTAȘ	FINANCIAL REPORTING VS. MANAGERIAL REPORTING – A COMPARATIVE APPROACH	19-25
Florin – Cristian GHEORGHE	THE COMPREHENSIVE INCOME – A NEW DIMENSION IN MEASURING THE FINANCIAL RESULTS BY APPLYING IFRS	26-31
Delia – Mihaela IBĂNIȘTEANU (IONASZ)	FINANCIAL REPORTING FROM THE REFERENCE THEORIES' PERSPECTIVE	32-38
Elena ENACHE, Sorin ENACHE, Cristian MOROZAN	CRYPTO-CURRENCIES – A BET OF THE FUTURE	39-48
Amalia Magdalena DANAILA, Monica Mihaela DRAGAN, Elena Simona TACHE	WAYS TO INCREASE TRANSPARENCY IN THE EXECUTION OF PUBLIC EXPENDITURE AT THE LEVEL OF LOCAL ADMINISTRATION	49-58
Anna RADINA	THE THEORETICAL BASIS FOR THE RESEARCH OF "E-BUSINESS" CONCEPT	59-65
Alina Georgeta AILINĂ	CONCEIVING A COMPOSITE EVALUATION FOR OFFICIAL DEVELOPMENT ASSISTANCE IN SUPPORTING SUSTAINABLE DEVELOPMENT GOALS AND ECONOMIC GROWTH	66-74
Nicoleta PAVEL, Geanina Iulia BOȚOTEANU (RĂDĂCINĂ)	FAITHFUL IMAGE AND ACCOUNTING REGULARITY IN CONDITIONS OF APPLICATION OF INTERNATIONAL FINANCIAL REPORTING STANDARDS. CHALLENGES FOR ACCOUNTING PRACTITIONERS AND AUTHORITIES	75-84
Victoria IORDACHI	CHALLENGES OF THE MUNICIPAL SOLID WASTE MANAGEMENT IN THE REPUBLIC OF MOLDOVA	85-94
Galina SAVELIEVA, Svetlana ZAHAROV	CHALLENGES OF LABOR MARKET TRANSFORMATIONS TOWARDS SOCIAL POLICIES IN THE REPUBLIC OF MOLDOVA	96-120
Cătălin GRĂDINARU, Sorin-George TOMA, Ștefan CATANĂ	SUSTAINABILITY AND COMPETITIVENESS AT THE GLOBAL LEVEL: AN ANALYSIS OF THE TOP 10 COUNTRIES IN THE PERIOD 2018-2020	121-128

Silviu-Marius ȘEITAN	FINANCIAL STABILITY ASPECTS IN THE CONDITIONS OF EUROPEAN MONETARY UNION	129-139
Dan Marius COMAN, Mihaela Monica RADU	BIG DATA – AN USEFUL TECHNOLOGY FOR ECONOMISTS	140-148
Viorica DINDĂREANU (IUGA)	ACTIVITY BUDGET AND PERFORMANCE OF THE ENTITY OF PUBLIC INTEREST- INTEGRATED APPROACH	149-163
Viorica POPA, Nicolae POPA	THE PROBLEM OF HAZARDOUS WASTE MANAGEMENT IN THE REPUBLIC OF MOLDOVA	164-171
Corina GRIBINCEA	CHALLENGES THAT FACE MOLDOVAN FOOD INDUSTRY TO ACCESS THE EUROPEAN UNION MARKET	172-179
Gabriel-Florin MESAROȘ	STRATEGIC COMMUNICATION PROCESS: SUPPORT FOR MEASURING COMPANY PERFORMANCE	180-186

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INTERNAL AUDIT - ACTIVE INSTRUMENT IN PERFORMANCE EVALUATION DECISION MAKING SYSTEM

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Abstract: *At public entities in Romania, the decision-making system works in all aspects: processes, actions and financial, material and information resources. The implementation of the internal audit allows the management of the public entity to periodically evaluate its general and specific objectives, the associated risks as well as the internal control tools used to reduce or eliminate the identified risks. In addition to its function as a conformity assessor, internal audit can be an active tool in assessing the performance of the decision-making system.*

Keywords: *internal audit, counseling activity, internal control.*

JEL Classification: *M42.*

1. Introduction

The public internal audit evaluates the management and internal control system, establishes the degree of assurance of management compliance, depending on the risks associated with the assessed objectives, with the application of methods and techniques for collecting and analyzing sufficient and conclusive evidence.

Internal audit, a component of internal control, provides assurance on the functionality of internal control, based on professional norms and standards adapted to the specifics and organizational structure of the public entity.

2. Problem statement - Evaluating the performance of the decision - making system

In evaluating the performance of the decision-making system, the main objectives of the internal audit are:

- reporting the entity's management on the findings, consequences and conclusions formulated on the audited objectives;
- formulating recommendations for remedying the identified dysfunctions;
- evaluation of the management and internal control system;
- providing management advice for improvement; processes / activities.

3. Research questions/aims of research

The approach of this article is represented by the contribution of the internal auditor on the decision-making system at the level of local public entities.

Based on the research, we will present the main objectives of the internal audit function in the local public administration, in accordance with the requirements of the legislative framework and international audit standards.

4. Findings – Internal audit - active tool in evaluating the performance of the decision - making system

The public internal audit activity is organized independently at the level of public entities, in the form of a specialized department that is subordinated and reports directly to the manager of the public institution.

In assessing the performance of the decision-making system, the purpose of the internal audit is to assist management in exercising its responsibilities, based on the assessments and recommendations made in the audit reports.

Internal auditors examine the activities of the public entity at all stages, from the initiation and adoption of the management decision to the evaluation of the results recorded as a result of the application of the decision.

- To achieve this goal, the following activities are performed:
- examination and assessment, application of accounting, financial and operational controls and promotion of an operational internal control conduct;
- verification of compliance with approved regulations, policies and procedures;
- verifying the protection of the patrimony of the public entity;
- checking the assurance of the information used by the management;
- evaluation of the results / quality of managerial decisions
- formulating recommendations for remedying the found dysfunctions.

Good financial management in terms of performance is defined by the following characteristics: economy, efficiency, effectiveness:

ECONOMY = the extent to which human and material resources are obtained in the appropriate quantity and quality with minimum costs.

EFFICIENCY = the ratio between the maximum results obtained and the resources used to produce them.

EFFECTIVENESS = the degree of fulfillment of the objectives associated with an activity and the relationship between the desired result and the actual achievements of that activity.

The audit of the decision-making system involves the evaluation of the economy, effectiveness and efficiency with which the head of the public entity organizes, leads and meets the approved general and specific objectives.

During the activity, internal auditors must have direct independence of action and expression of opinion. The head of the public entity will establish the audit areas, according to the managerial decisions and the specific reporting needs.

Although the audit team gives assurance that the entity's objectives are consistent, this is not a guarantee, absolute assurance that the information in the financial statements is accurate.

In this sense, the internal auditor considers: conformity assessment, approved objectives assessment, risk assessment associated with objectives, structural risk assessment as well as system risks or external risks (table no. 1.)

Table no. 1. Stages of evaluating the performance of the decision-making system

PERFORMANCE EVALUATION STAGES DECISION MAKING SYSTEM				
Evaluation conformity (regularity criteria / conformity)	Objective evaluation (performance criteria)	Economic-financial risk assessment	Structural risk assessment	Assessment of system risks / external risks
The auditors verify the observance of the legal provisions regarding the organization and functioning of the audited public entity, regulations, own procedures, norms, approved methodologies.	The auditors verify the achievement of the managerial objectives in the approved amount and terms. The degree of achievement on the objective is established as a ratio between the planned managerial objective and the achieved one.	The risks of economic-financial nature are analyzed as well as the measures adopted to limit / reduce / eliminate them.	The auditors analyze the risks of a structural-organizational nature as well as the way in which the managerial decision can lead to structural consequences on the functioning of the decision-making system.	The auditors analyze the influence of system risks or external risks on the elaboration of the managerial decision as well as the effects of the decision at the level of the audited public entity

Source: the author

In the process of evaluating the decision-making system, the internal auditors found situations that led to unfavorable consequences for the public entity: acts of corruption, fraud, illegal spending and loss of assets.

In table no. 1 consequences and risks identified in audit missions regarding the evaluation of the performance of the decision-making system are presented, as well as the associated internal control instruments for their limitation or diminution.

Corruption is illegal, it exists. Corruption concerns the exploitation of the public entity's own resources, the ability to influence officials in order to provide favorable treatment to certain persons.

Fraud is an intentional act on the part of one or more persons, from the management of the public entity, employees or other persons who obtain an illegal or undue advantage. Fraud can be committed by a single person, or in collaboration with people inside or outside the business. Fraud is a highly developed legal concept, the main concern of auditors is fraud causing material distortion in financial reporting. This is different from error, when a material misstatement is caused by an error, for example, by not applying an accounting policy.

The internal auditors during the mission notice different dysfunctions in the organization of the public entity, but it is not in charge of the internal public audit to solve the dysfunctions found. This responsibility belongs to the manager, through his own functional structures.

Considering the experience of internal auditor in the public system, over 18 years, we affirm that the internal audit is a real support to the management of the public entity but also to the external audit. In the reports of the external auditors, the activity of the internal auditor is appreciated, even if the verification operations and techniques are different, both forms of audit evaluate the conformity, regularity and legality of the financial and patrimonial operations.

Table no. 2. Consequences / risks identified in the process of evaluating the performance of the decision-making system, as well as associated internal control tools

Consequences and risks in evaluating the decision-making system			
CORRUPTION - illegal activities, in order to influence decision makers, to obtain financial benefits or other benefits.	FRAUD - modification, concealment, substitution, destruction or incorrect presentation of for illegal financial gain or other benefits.	THEFT - theft of money or material goods belonging to the public entity.	MISTAKES / ERROR - inefficiency or incompetence in performing the tasks and activities of the public entity that leads to financial or other losses.
Internal control tools adopted			
CONTROL INTERNAL - approved internal system, provides assurance on the operations performed, the tasks assigned, the approved document circuit, the correct financial reports and in accordance with the legal provisions	FINANCIAL CONTROL - a set of activities, provides assurance on the responsibility and integrity of financial management and reporting.	INTERNAL AUDIT - analyzes and assesses all forms of internal control organized at the level of the entity, in order to grant the degree of assurance.	EXTERNAL AUDIT - external activity of evaluation and appreciation of the financial statements and other types of reports that offer certainty regarding the credibility and legal compliance.

Source: the author

5. Conclusions

The internal auditor, through the help given to the management of the public entity, also represents an assistance function. The entity manager is assisted by the internal auditor in order to solve the problems related to the adopted decisions, in order to obtain a better control over them. The auditor is increasingly adopting the profile of a counselor, of a consultant we can call spontaneously, of a specialist. The auditor is not obliged to give a resolution, he advises, assists, recommends but does not decide. According to the norms and legal procedures that give it authority, through its actions, the internal auditor helps to improve the control, to improve the performance and implicitly to achieve the objectives of the entity.

The public internal audit is an active tool in evaluating the performance of the decision-making system when: the internal managerial control system is implemented, periodically monitored and the general management adopts risk management measures and their consequences on the general and specific objectives of the entity.

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THE DIGITALIZATION OF THE TAX ADMINISTRATION AND THE IMPLEMENTATION OF THE SAF-T STANDARD

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Abstract: *If in the past digitization was only an option, nowadays it has become a necessity due to the speed of evolution and date changes that have taken place in this field. A new challenge in the financial services sector can be seen by implementing in Romania the international standard for the electronic exchange of accounting data between companies /organizations and tax authorities, SAF-T (Standard Audit File for Tax). The need to adopt this standard appears in a globalized environment with different accounting systems, standardization being essential for the identification of tax fraud. SAF-T was introduced by the OECD, which is seen as automatically generating files in a common, readable and easily exportable format, regardless of the software used according to a defined set of accounting records. SAF-T has already been implemented by several European tax authorities and will be implemented in our country in July 2021 according to the press release of 31.12.2020 sent by ANAF. The objective of the paper is to present the SAF-T standard, the evolution of its implementation in the Member States, the stages of SAF-T implementation in Romania as well as the advantages and implications of its adoption and the necessary conditions to be met.*

Keywords: SAF-T, OECD, ANAF Digitization, SAF-T in Romania, Fiscal Reporting.

JEL Classification: M40, M42, M48.

1. Introduction

The need to adopt this standard appears in a globalized environment with different accounting systems, standardization being essential for the identification of tax fraud. Also for the identification of the tax fraud was implemented the procedure of connecting the fiscal cash registers to the computer system of MF-ANAF starting with 31.03.2021 according to ANAF no. 435/2021.

The connection will be made as follows: GPRS connection, LAN connection, wi-fi connection.

The cash registers will automatically transmit, at the end of each day, as soon as the closure report has been issued, the necessary data to the ANAF server. The need to adopt integrative applications that have a good functioning and flexibility of processes, appears in a globalized environment with more and more varied accounting programs.

SAF-T is a standard file used by European tax authorities: Portugal, Hungary, Poland, Norway, Lithuania, Luxembourg, Austria, as a means of filing tax returns electronically.

Romania has taken over the implementation of SAF-T in order to reduce the VAT collection deficit to the state budget. Our country follows as an example other Member States that have managed to increase the collection in recent years, Poland being a good example. The integration of the SAF-T Audit Standard in Poland was based on three strong supporting ideas: modern legislation, efficient tax administration and close cooperation with the business environment.

SAF-T is a tool that has a positive effect in combating the preparation of false invoices and reduces the risk of VAT fraud. The first version v.1.0 of the standard audit file SAF-T was published in May 2005 by the OECD and is based on general ledger records, customer and supplier account statements, details of invoices, orders, payments and receipts. The SAF-T audit standard has as its syntax the schema in XML format.

Since April 2010, version v2.0 has been updated and for its improvement, the suggestions of OECD member countries, which have included inventory information and fixed assets, have also been taken into account. The OECD leaves it to each country to choose how to implement the information that will be transmitted through the standard audit files.

For the implementation of strategies in the field of digital transformation and information society, a new structure has been organized and operates the Romanian Digitization Authority (ADR) which brings together all departments or services of strategy, coordination, supervision and implementation in e-government (which comes from 4 institutions).

This article seeks to highlight the importance of digitizing the tax administration due to the globalized environment and different accounting systems.

2. Review of scientific literature

The studied subject is one of current interest in terms of the digital strategy for automating the tax administration. According to the presentation of the digital strategy for the period 2021-2025 by the National Agency for Fiscal Administration, it is for the transformation of the ANAF institution into a digital organization in order to increase the efficiency in collection and facilitating the interaction between the tax administration and taxpayers (Digital Strategy 2021-2025 ANAF).

More than ever due to the constraints imposed by the pandemic, digitization is necessary for easy communication with taxpayers and the business environment. According to the press release of December 31, 2020, ANAF will complete the development of the SAF-T IT system in July 2021, Project co-financed by the European Social Fund, through the Operational Program Administrative Capacity 2014-2020. SAF-T is an international standard file that allows the exchange of information between tax authorities and taxpayers, based on a standardized format.

The file was designed taking into account the financial-accounting data usually held by taxpayers (cf. no. 68/2020). The benefits of SAF-T implementation both for the taxpayer and for the Romanian state authorities are:

- Secure files exported in a standard XML format
- Simplifies the procedure of data collection in electronic format to ANAF
- The standard format provides easy-to-interpret data regardless of the accounting system used
- Automation of identification and preparation of essential data for declaration and control
- Support for identifying reporting errors;
- More precise identification of fiscal risk areas and implicitly targeting controls to cases of tax evasion and less to errors;
- Faster reimbursement of taxes for companies and with lower risks for the state;
- Improving the collection of taxes and duties (deloitte / digitization map)

2.1 The evolution of SAF-T in Europe

The first country in Europe to adopt reporting using the SAF-T standard audit file was Portugal. **Portugal** implemented the system in 2008 but the real expansion began in 2013 when a law was passed requiring companies to migrate to the SAFT-PT electronic system. Since then, all Portuguese companies have had to adapt their ERPs in stages and establish automatic communication channels with the Directorate-General for Taxation. Since 2018, companies have also been asked to include in the new SAF-T accounting file:

detailed lists of customers and suppliers; VAT classification, accounting movements and chart of accounts.

Poland uses the SAF-T JPK_VAT system for electronic VAT returns, which is mandatory for both Polish companies and companies operating in the country. Starting in April 2020, a new format that changes the data structure of the file will be mandatory for large companies and all taxpayers on July 1, 2020.

Austria introduced the standard tax audit file or SAF-T, in 2009, by decree of 20 March 2009, BMF -010102 / 0002-IV / 2/2009, the previously accepted data formats have been extended to include the XML format under form SAF-T AT. Currently, companies are not required to submit the periodic report but are required upon request in tax inspections.

Lithuania started implementing the standard tax audit file (SAF-T) in early 2016 and completed it for all companies at the beginning of 2020.

Implementation period:

January 2017 for companies with an income over 8 million euros per year

January 2018 for companies with an income over EUR 750 thousand per year

January 2019 for companies with an income over EUR 45 thousand per year

January 2020 for all companies

Lithuanian authorities have implemented SAF-T audit files in much more detail than Polish or Portuguese files. There are three types of SAF-T reporting in Lithuania:

- Data on the i.SAF invoice This electronic XML register of sales and purchase invoices is sent monthly with the VAT return until the 20th of the month following the reporting period. All VAT-registered businesses must complete the filing.
- i.VAZ transport / shipping document XML data Supporting documents for internal movement of goods by road
- Reporting i.SAF-T accounting transactions only for resident enterprises. This is not mandatory; instead only on request.

Luxembourg introduced the standard tax audit file (SAF-T) on 1 January 2011. The Luxembourg version of SAF-T is the FAIA (Computerized Audit File Administration of Registration and Domains). The FAIA file is a computerized file that contains all the information needed for a VAT audit. The FAIA report is requested only upon request by the authorities before a full audit.

France imposed the SAF-T standard audit file on 1 January 2014. The French version of the SAF-T program is FEC (Fichier des écritures comptables). SAF-T files are presented as annexes to the profit tax return and requested on request by the tax authorities before a control.

In **Norway**, mandatory SAF-T reporting has been introduced since 1 January 2020.

The submission of SAF-T files will be made by the companies with a turnover of at least 5201000 Euro, ie approximately NOK 5 million. In case of a fiscal audit, SAF-T files are requested only upon request by the authorities.

3. Questionnaire Analysis - Implementation of the SAF-T audit standard in Romania

The situation presented below was developed following an extensive study conducted using the tool implemented by Google by creating a free Gmail account and using the Google form, a component of Google Drive applications that allows surveying and consulting results in a summary.

IMPLEMENTAREA STANDARDULUI DE
AUDIT (SAF-T) ÎN ROMÂNIA

1. În ce categorie de vârstă vă încadrați?

☐ 18-24
☐ 25-40
☐ >40
☐ Altele: _____

15. Considerați ca fișierele standard de raportare SAF-T va îmbunătăți comunicarea cu bancile ?

☐ Da
☐ Nu
☐ Altele: _____

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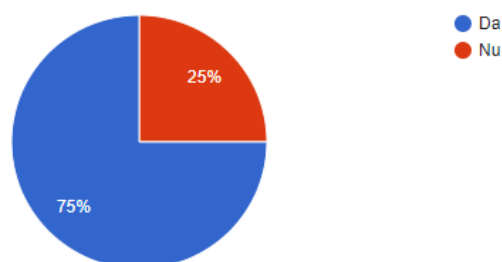
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Following the opinion poll regarding the implementation of SAF-T in Romania addressed to the specialists on the specialized groups, they answered as follows:

- 52.8% specialists aged between 25-40 years
- 44.4% specialists over the age of 40
- 2.8% specialists over the age of 56
- 86.1% working in the public environment
- 13.9 in the private sector
- 37.1% having a management position
- 62.9% execution
- 88.9% working in the economic field
- 11.1% working in another field
- 50% with more than 10 years experience
- 30.6% with experience between 5-10 years
- 13.9% with experience between 5-10 years
- 5.5% with 32 years of experience

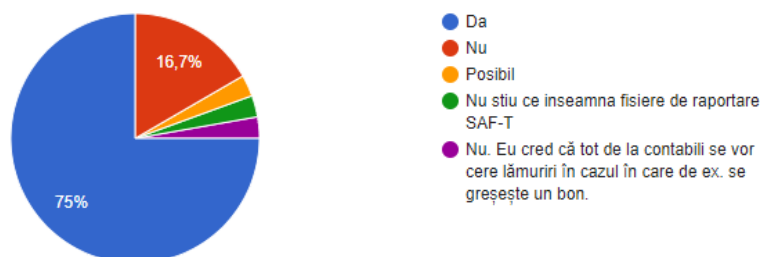
The questions in the questionnaire were answered as follows:

1. Have you heard of the implementation of SAF-T within the ANAF institution?



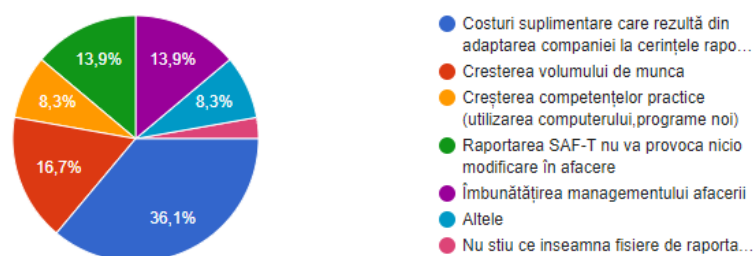
- 75% answered in the affirmative
- 25% not being informed

2. Do you think that standard SAF-T reporting files will improve communication with state institutions?



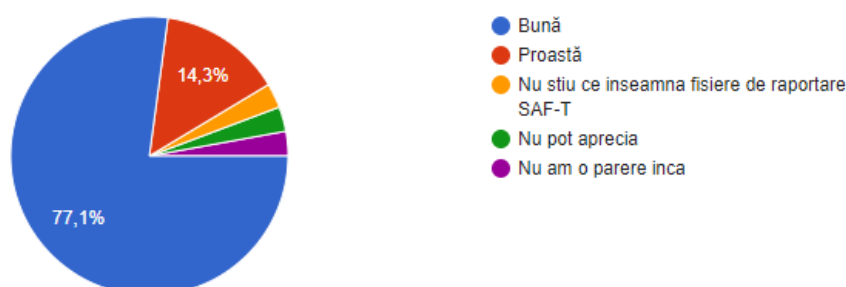
- 75% of respondents believe that the implementation of the standard SAF-T audit file will improve communication with state institutions, the rest being pessimistic and based on the support of the accountant for any errors in the operation of the cash register.

3. SAF-T reporting involves the following within your company



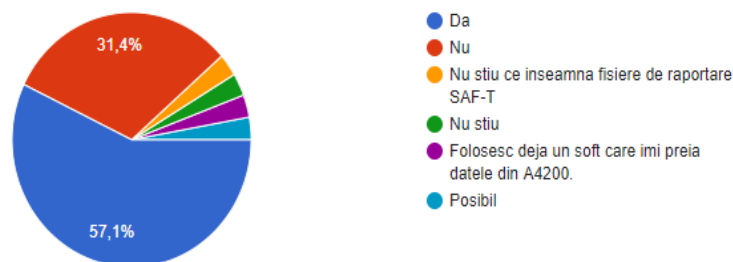
- 36.1% answered that they will suffer additional costs, as a result of the company's adaptation to the SAF-T reporting requirements
- 16.7% will have an increase in workload
- 8.3% saw an increase in practical skills
- 13.9% of the surveyed staff saw it as an improvement in business management and the rest do not know what SAF-T reporting means or have other answers

4. How do you appreciate the idea of implementing the SAF-T electronic reporting standard?



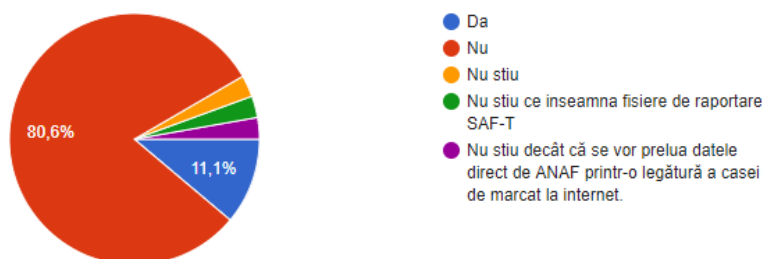
- 77.1% have a good opinion
- 14.3% not very good
- 8.6% can't appreciate, don't have an opinion yet, don't know

5. As an Accountant / Economist / Accounting Firm, do you think that the SAF-T files that are sent to ANAF would help you to restore the accounting statements?



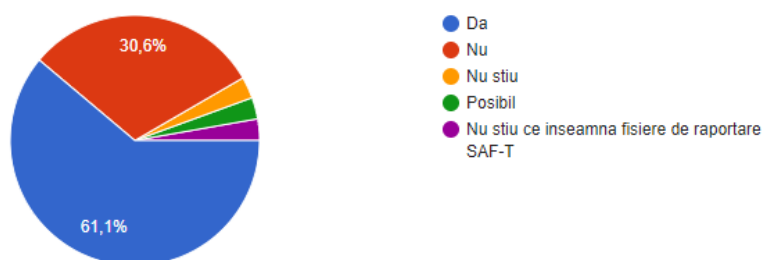
- 57.1% answered in the affirmative
- 31.4% answered negatively
- 11.5% are in the other categories

6. Have you been informed by the state institution regarding the taking of measures for the implementation of SAF-T within the company?



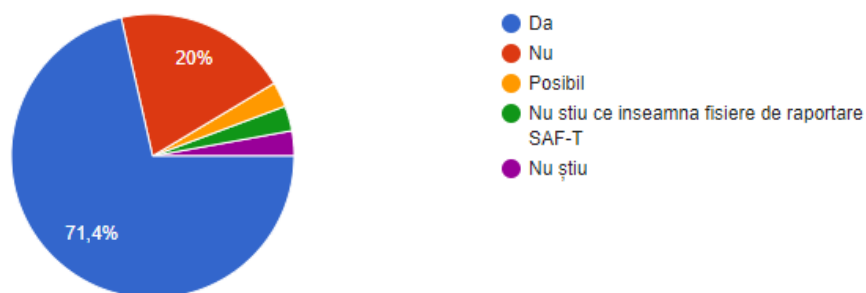
- 80.6% answered negatively
- 11.1% answered positively
- 8.3% are in the other categories

7. Do you think that the implementation of SAF-T in document archiving would help you in the medium and long term?



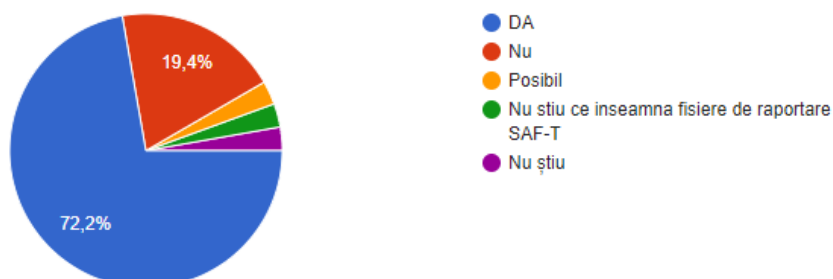
- 61.1% answered positively
- 30.6% answered negatively
- 8.3% are in the other categories

8. In the case of an accounting expertise, do you think that the standard SAF-T reporting file would help you?



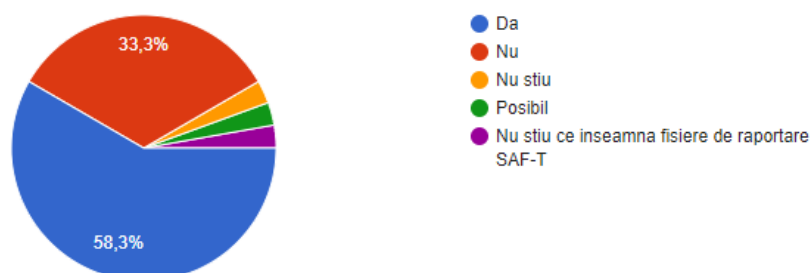
- 71.4% responded positively
- 20% answered negatively
- 8.6% are in the other categories

9. In the case of an AUDIT, do you think that the standard SAF-T reporting file would help you?



- 72.2% responded positively
- 19.1% answered negatively
- 8.7% are in the other categories

10. Do you think that standard SAF-T reporting files will improve your communication with banks?



- 58.3% answered positively
- 33.3% answered negatively
- 8.4% are in the other categories

4. Conclusions

This paper aims to highlight the need for digitization by completing a questionnaire based on the response to the need for the design of financial control procedures that require adjustments to the new conditions after the introduction of SAF-T.

During the paper we noticed that the specialists responded positively and accept with optimism the implementation of SAF-T.

The conclusion of the paper is that digitalization is more than ever necessary to better serve taxpayers and the business environment, to ensure coordination of administrative efforts with the way taxpayers use digital technology, to increase the performance of public services in tax administration, reduce the administrative burden and facilitate communication between ANAF and taxpayers in both directions (digital strategy 2021-2025).

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FINANCIAL REPORTING VS. MANAGERIAL REPORTING – A COMPARATIVE APPROACH

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Abstract: Financial reporting provide detailed information for external users, like as investors, lenders and creditors but it doesn't provide enough useful information for those decisions made concerning the daily activities of the business or regarding planning and controlling the companies' operations on a long term. Management reporting closely examines the process of converting consumed resources into results, allowing managers to set and permanently evaluate the fulfilment of business goals. This article considers a comparative approach between financial and management reporting, analyzing some important differences in terms of the objective of financial and managerial reporting, users of reports, purposes of reports and types of reports.

Keywords: financial reporting, managerial reporting, users of reports, types of reports, focus of reports.

JEL Classification: M41, M00.

1. Introduction

Accounting is the system of recording and summarizing business and financial transactions and analyzing, verifying, and reporting the results. It provides information necessary to make choices among alternative uses of scarce resources in the conduct of business and economic activities. Accounting is often seen as a link between business activities and decision makers (Needles et al, 2014).

Every business has a financial side and a managerial one.

The financial side includes all the transactions which arise between: the firm and stockholders, or between partners; the firm and debtors and creditors; the income and expenditures of the company, its losses and gains, its assets and liabilities.

The managerial side of the business includes all transactions which arise between the various departments which produce or sell goods, including the cost of goods both as a whole and by departments, and the firm and its employees.

Thus, the separation of the two types of transactions determines the separation of the two sides of accounting, respectively financial and managerial accounting, best meeting the requirements of performing and managing the external and internal functions of the enterprise.

Financial accounting provides information intended mainly to the company's external partners in order to help them decide on the allocation of their resources. It provides information that gives a global and standardized view of the company, based on the answer to the question: “what is the consumption of resources and what are the results of the enterprise as a whole?” (Epuran et al., 1999)

Financial reporting provides a synthetic and retrospective picture of the company's financial position and performance.

Management accounting serves the managers inside the company, whose mission is to make decisions about transforming the resources entrusted to them to be managed and to achieve the surplus that ensures growth, without other external resources.

The comparison between financial and managerial reporting reveals important differences in terms of: the objective of financial reporting, users of reports, types and purposes of reports, focus of reports.

2. The objective of financial reporting and management reporting

The objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful, mainly, to different categories of external users.

The management reporting provides information to different levels of management so as to allow assessing the effectiveness of their responsibility centres and become a base for taking corrective measures, if necessary. A fundamental objective of management reporting is to obtain the information about the operating results of the company in order to use them for further planning and control.

3. Users of reports

The information provided by financial reporting is used primarily by external users, like as the investors, creditors, tax authorities and regulators, competitors, customers, suppliers and others outside the company. The external users are relying on the financial statements to access information about a company in order to make more informed decisions.

According to IFRS Conceptual Framework for Financial Reporting, the users of financial reporting are existing and potential investors, lenders and other creditors in making decisions relating to providing resources to the entity (Conceptual Framework, 2018, par. 1.2). These decisions relate to important economic aspects like as:

- (a) buying, selling or holding equity and debt instruments;
- (b) providing or settling loans and other forms of credit; or
- (c) exercising rights to vote on, or otherwise influence, management's actions that affect the use of the entity's economic resources.

Management reports provide information about different aspects of the business to managers of different levels of the company, in order to help them make better-informed decisions. They basically show the worth of the business over a specific time period by disclosing operational information. Reporting for management provides insights on how the company is doing, empowering decision-makers to find the right path to increase operating efficiency and make pertinent decisions to remain competitive (Durcevic, 2020).

4. Purposes of reports; types of reports

The objective of general purpose financial statements is to provide information about the financial position, financial performance, and cash flows of an entity that is useful to a wide range of users in making economic decisions. To meet that objective, financial statements provide information about an entity's: assets, liabilities, equity, income and expenses, including gains and losses, contributions by and distributions to owners (in their capacity as owners), cash flows (IAS 1, par. 9).

That information, along with other information in the notes, assists users of financial statements in predicting the entity's future cash flows and, in particular, their timing and certainty.

A complete set of financial statements includes:

- (a) a statement of financial position (balance sheet) at the end of the period
- (b) a statement of profit or loss and other comprehensive income for the period
- (c) a statement of changes in equity for the period
- (d) a statement of cash flows for the period
- (e) notes, comprising a summary of significant accounting policies and other explanatory notes (IAS 1, par. 10).

An example of a statement of profit or loss and other comprehensive income is presented in table no. 1.

Table no. 1. Example of a statement of profit or loss and other comprehensive income

	€	€
Revenue		
- Sales revenue	500,000	
- Services revenue	240,000	
- Changes in inventories of finished goods	60,000	
Total revenues		800,000
Expenses		
- Raw materials used	200,000	
- Employee benefits expense	250,000	
- Depreciation of plant and equipments	50,000	
- Utilities and rent	180,000	
- Other operating expenses	20,000	
Total expenses		(700,000)
Profit before taxes		100,000
Income tax expense		(20,000)
Profit for the year		80,000
Other comprehensive income		
- Gain on revaluation on land	30,000	
- Exchange differences on translating foreign operations	(22,000)	
Total comprehensive income net of tax		8,000
Total comprehensive income for the year		88,000
Profit attributable to owners		100,000
Total comprehensive income attributable to owners		88,000

The management accounting ensures, mainly, the recording of the operations regarding the collection and allocation of expenses by destinations, respectively by activities, manufacturing departments, cost centres, profit centres. It also ensures the calculation of the cost of inventories, cost of purchase, cost of conversion of inventories, and work-in-progress.

In Romania, according to Order No. 1826/2003 of the Ministry of Public Finances (par. 1), the purpose of management reporting is to provide:

- information related to the cost of goods and services, for companies carrying out production and service activities, as well as to the cost of goods sold for companies carrying out trade activity;
- information underlying the budgeting and control of the operating activity;
- information necessary for the financial analysis to substantiate the managerial decisions regarding the management of the internal activity;
- other information required by efficient management.

Managerial accounting information is communicated through reporting as well. The reports are more detailed and more specific and can be customized. Examples of managerial accounting reports are: budget analysis, job order cost sheets, cost of goods manufactured, and production reports.

Budget Report is a fundamental report in managerial accounting, helping business owners understand and control costs across the company. By evaluating expenses in prior years, it becomes possible to estimate budgets for the following year and find ways to reduce costs. In table no. 2 an example of budget report is presented.

Table no. 2. Example of Budget Report

Manufacturing Costs	Budget	Actual	Differences	
Variable Costs				
- Direct Materials	€25,100	€24,400	€700	Favourable
- Direct Labour	€28,300	€27,500	€800	Favourable
- Indirect Materials	€16,800	€17,200	€400	Unfavourable
- Indirect Labour	€12,500	€12,700	€200	Unfavourable
- Utilities	€10,300	€11,000	€700	Unfavourable
- Maintenance	€5,000	€5,000		
Total Variable	€98,000	€97,800	€200	Favourable
Fixed Costs				
- Rent	€6,100	€6,000	€100	Favourable
- Supervision	€4,000	€4,000		
- Depreciation	€5,500	€5,500		
Total Fixed	€15,600	€15,500	€100	Favourable
Total Costs	€113,600	€113,300	€300	Favourable

Job Cost Report provides information regarding the total cost accrued in a single product compared to the expected revenue from selling the product. This report helps managers evaluate the profitability of specific types of products and optimize their operations by focusing on the products or services that are the most profitable overall.

For example, product A ordered by client X passes through three manufacturing departments 1, 2 and 3. In table no. 3 an example of job cost report is presented.

Table no. 3. Example of Job Cost Report

	Manufacturing departments			
	MD 1	MD 2	MD 3	
Direct materials	€15,000	€2,000	€1,400	€18,400
Direct labour (hours for Product A)	2,000	1,000	3,000	
Rate of direct labour per hour	€2.00	€3.50	€1.50	
Total overheads for the departments	€12,000	€10,000	€15,000	€37,000
Total labour hours for the departments	15,000	15,000	20,000	
Job Cost Report				
Direct materials	€15,000	€2,000	€1,400	€18,400
Direct wages	€4,000	€3,500	€4,500	€12,000
Direct costs	€19,000	€5,500	€5,900	€30,400
Overheads*	€1,600	€667	€2,250	€4,517
Total Costs	€20,600	€6,167	€8,150	€34,917

* Calculation of overhead allocated to Product A has been made as follows:

$$= \frac{\text{Total overheads for the department}}{\text{Total labour hours in the department}} \times \text{Labour hours in department for Product A}$$

Inventory and Manufacturing Report provides centralize data on inventory costs, labour, and other forms of overhead involved in the production process, providing raw data to optimize assembly or machining. An example is shown below:

Sales	€300,000
Cost of goods sold	
Merchandise inventory, beginning balance	€230,000
Add net purchases	€170,000
Cost of goods available for sale	€400,000
Less merchandise inventory, ending balance	€210,000
Cost of goods sold	€190,000
Gross profit	€110,000
Less operating expenses	
Selling	€50,000
General and Administrative	€40,000
Operating profit	€20,000

Management reporting provides information that is relevant to planning and control decisions, for example, budgetary control information, relevant costs for one-off decisions, and profitability reports for profit monitoring. Also, management reporting is focused on segments of the business. By segmenting, the manager can get into the details and analyze the drivers of the business.

5. Focus of reports

Because financial accounting typically focuses on the company as a whole, external users of this information choose to invest or loan money to the entire company, not to a department or division within the company. Therefore, the global focus of financial accounting is understandable (Franklin et al., 2019).

Financial accounting is concerned with the principles and practices applied for recording transactions of a company and presenting financial information for use by the company's internal and external stakeholders. Presenting financial information in prescribed formats and under specific legal rules and regulations is a mandatory requirement of the law. Generally the topics covered include: accounting principles; bookkeeping rules, processes and formats; recognizing, measurement and presenting assets; recognizing, measurement and presenting liabilities; equity accounting; receivables and bad debts accounting; revenue recognition principles; taxation.

Managerial reporting is more focused on divisions, departments, or any component of a business, down to individuals. Managers need accounting reports that deal specifically with their division and their specific activities (Franklin et al., 2019). As an example, production managers are responsible for their specific area and the results within their division. Therefore, the company can be divided into segments based on what managers need; few examples of segmenting criteria are: geographic location, product line, customer demographics, or any other divisions.

That is why we conclude that managerial accountants perform a wider range of analyses than financial accountants do. Issues covered in management accounting include: product costing; cost behaviour; cost estimation; Cost-Volume-Profit analysis; flexible budgeting; strategic cost planning.

Detailed analysis may address the following issues:

- analyzing the profit resulting from different products or activities of a company and also the effect on the stakeholders' wealth of engaging in producing a certain product

(through calculating profitability index, net present value, internal rate of return, payback period);

- the effect on profits of changing the company's cost structure (for example, replacing fixed expenses of sales wages with variable costs such as sales commissions);
- the minimum number of units that must be sold in order to achieve minimum 0 net operating profit (the "break-even point").

An advantage of using management reports is that there are no standard reporting formats that guide them, thus because managerial accounting reports are unique to a certain entity. Reports to management may be either summaries of past events, forecasts of the future, or a combination of the two. Additionally, they are generally not audited by an independent auditor because external users do not rely on them.

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THE COMPREHENSIVE INCOME – A NEW DIMENSION IN MEASURING THE FINANCIAL RESULTS BY APPLYING IFRS

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Abstract: *A premise of the normalization accounting, the globalization is characterized by the interaction of financial, material and human resources at international level. It develops and diversifies the transactions produced by economic entities, which influences the opportunity of processing and communication of information. A normalization of the synthesis situation (financial reporting) concerning the comprehensive income which would replace or complete the traditional format of the income statement has become a permanent joint project initiated by IASB and FASB to achieve convergence between the standards of IFRS and USA GAAP.*

Keywords: *global result, IFRS, US GAAP, the IASB accounting normalization, fair value.*

JEL Classification: *M41.*

1. Definition and general position

From a conceptual point of view, the determination and the report of comprehensive income serves to the presentation of a single size (integrated) of all items of income, expenses, gains and losses, aiming at increasing transparency of financial relations. Replacing or supplementing the traditional income statement with a global format which integrates in the current result including all the operations which transited directly in the equity is based on the fact that the proper size of the performance is not given by the indicative of the net result but of that value which measures the variation of equity (assessed in market values) or otherwise said, the enrichment of the shareholders.

Previously this approach of the normalization, in the accounting theory there were often made critics on the practice according to which, certain elements of the nature of the outcome passed the account of profit and losses impacting the equity and which became thereby amorphous elements yet potentially information. The attitudes towards these practices are different as there are different interested users. Most points in using the presentation of the global outcome were expressed as a result of what FASB and SFAS 130- issued. The reporting of the global result, a standard became mandatory starting with the subsequent reporting date of December 15, 1997.

The authors O' Hanlon and Pope (1999) and Dhaliwal (Dhaliwal, Subramanyam and Trezevant, 1999) have emphasized the fact that regarding the assessing of stock returns, the global outcome provides rarely information in addition to those already presented in the net accounting.

On the contrary, Hirst and Hopkins (1998), Maines and McDaniel (2000), Biddle and Choi (2001) have sustained empirically the relevant decisional part of the global result. Meanwhile it is not excluded the fear that some elements, which currently are not part of the income statement, by including them in the overall result it would be given an informational value much higher than their real significance.

After releasing SFAS 130, both at the level IASB, but also as FASB, the issue of an evolved global result, being closely related to the treatment's differences from the evaluating at a fair value (e.g. fixed assets revaluation result IAS 16, the accounting gains and losses from investments in foreign entities - SFAS 52, IAS 21, unrealized gains and losses of the financial instruments available for sale - SFAS 115, IAS 39).

In this context, the fair value becomes a fundamental means of assessing the financial performance, considering that by the use of it are corrected some difficulties of accounting in historical costs, often incriminated for the differences between the reported

values and their economic reality. In this case, an asset can generate income by increasing its fair value; since the decision to hold an asset has economic consequences that financial statements should disclose the profit thus generated would be relevant in assessing management. From this perspective, new concerns about performance and presentation of comprehensive income reflects the difficulty of dissociating income flows from operating activities, income flows resulting from changes in balance sheet values (Pratt, 2011).

Since not all the changes in IFRS fair value of assets and liabilities are reported in the income statement of the period in which these changes are recognized, it was gradually considered that the net result can not be seen as a complete measure of financial performance, prompting - it thus focusing efforts towards the normalization of reporting comprehensive income.

We conclude that the overall performance of the entity, as its main shareholder information, resulting from combining equally two factors: the performance of the operation and performance of investment alternatives in the choice made by the entity.

2. The Expression of the Comprehensive Income

The comprehensive income as an expression in terms of performance variation incumbent shareholders equity (net assets balance sheet value) can be expressed by the equation:

$$Rgt = (VBt - VBt-1) - Dt - OC,$$

where:

Rgt – comprehensive income at the end of period **t**;

VBt – equity (at book value) at the end of period **t**;

Dt – the dividends at the end of period **t**;

OC – capital transactions with owners in period **t**.

The outcome is determined by the net asset variations over a period. Balance sheet approach is based on neoclassical economic theory, according to which company management aims at maximizing major business value.

A formula developed from the perspective of an approach by income expenditure proposed by teachers Jeopardy C. and M. Dumitru (2006) :

Profit / loss for the period recognized (a) profit or loss:

(+/ -) Income / expenses, gains / losses recognized directly in equity;

(+/ -) Profit / loss effect of changes in accounting policies;

(+/ -) Profit / loss effect correction of fundamental errors;

= The comprehensive income

The two approaches differ in the way different accounting firm transactions. In Table no. 1 are presented some comparative elements on the two approaches result:

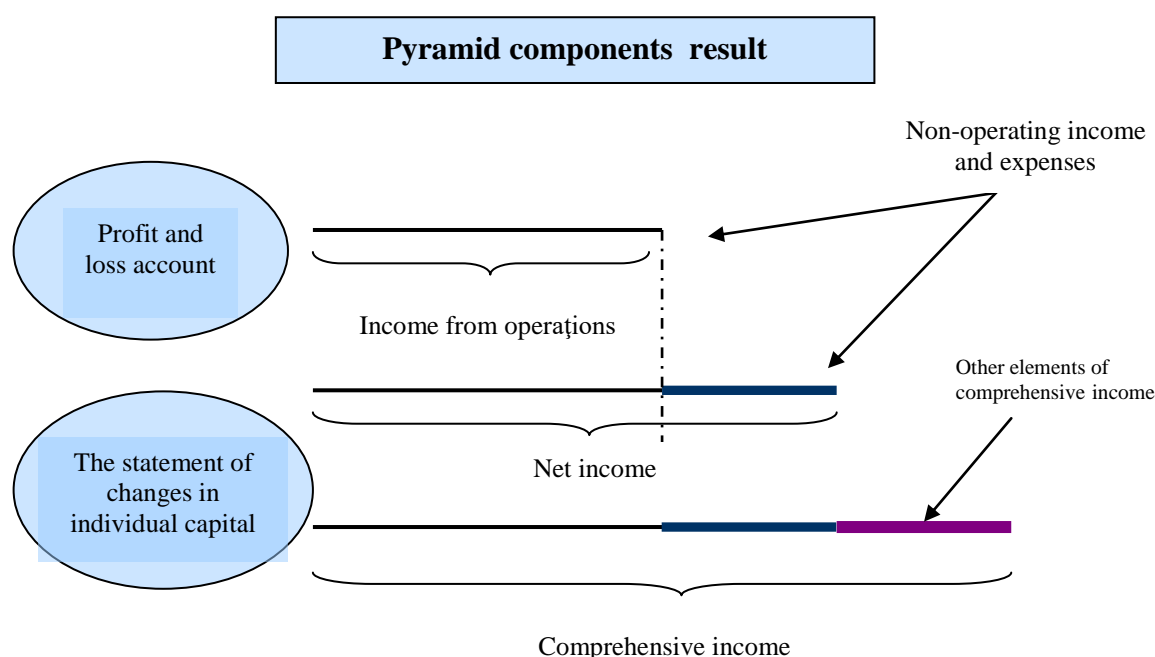
Table no. 1. Double approach to outcome; comparative items

Active approach – liabilities (balance sheet)	Addressing expenses – income (income statement)
<ul style="list-style-type: none"> • transactions are accounted for according to their impact on the assets and liabilities • income and expenses are accounted for by the rules of assets or liabilities; • highlights the accounting rules and accounting rules for valuing assets and liabilities; • main financial document is balance; • outturn account is of secondary importance. 	<ul style="list-style-type: none"> • transactions are recorded as income or expenses by the fundamental principles: the precautionary principle, the principle of independence exercises; • attach minor variations of assets and liabilities; • main financial document of the results; • balance is of secondary importance

Source: own processing.

Following representation (Fig. 1) combines the two perspectives:

Figura nr. 1. Pyramid components result (own processing)



Source: Casta J.F., Ramond O., 2007

The accumulated accounting adjustments and the changing elements of the net situation and unassigned to shareholders are combined under the name of other *elements of comprehensive income*. They form, together with net income, comprehensive income and asset values corresponding to variation and liabilities recognized directly in equity and especially attributable to the application of specific rules on fair value accounting . If the theoretical evaluation of all balance sheet items at fair value, the result per share would correspond to the overall variation of the stock exchange.

Generally, according to the conceptual framework both revenue and profit are included in the category of positive results, as both expenditure and losses are negative (CECCAR, 2018), which sustain the image of an account of comprehensive income or

transparent surplus (*clear accounting surplus*). However, in practice of the standards previously issued by the IASB, especially those in the fair value, we can find numerous accounting rules that reflect patterns of net earnings or stale surplus (*dirty surplus accounting*), the fair value adjustments are recorded in net income, but transferred directly to equity, the model away from the Conceptual framework rules (*e.g. changes in fair value of financial instruments available for sale - IAS 39: 55, the changes in value of tangible assets held at fair value - IAS 4:39 p.m. etc.*).

3. The Relevance of the Comprehensive Income Reporting

The concepts concerning the result have represented a point of controversy. In the US the concept of normalization comprehensive income in the general accounting principles (US GAAP) was achieved only after 15 years since its introduction to the theory and practice of accounting. This discrepancy is mainly due to the fact that the presentation of performance is not only a matter of outcome reporting in one format or another, but involves issues in the assessment and recognition of items in the financial statements.

The suggestion of introducing a new concept is determined by the fact that the Group's net profit was one of the causes of fraud and stock market overvaluation that has characterized recent years (CECCAR, 2018). Many financial scandals of the last decade were due to net earnings manipulation. The new financial situation has distinct categories on economic operations, financial activities, investing activities and taxes payment.

The concept of comprehensive income is placed at the intersection of controversial perspectives. On the one hand, in terms of accounting theory, but also of the empirical behavioral studies it requires a separate presentation. On the other hand, accounting research positions has not appeared harmonized yet in terms of relevance and impact of information on the comprehensive income by its presentation on decision making behavior of investors in capital markets. The construction of an accounting model in accordance with the objective of supporting investment decisions in capital markets justifies the considerable importance which the normalizers offer to the studies based on real data of capital markets concerning the relevance levels that the information contained in comprehensive income and its components gains during the evaluation processes. According to their setters, each entity will need to consider the content, the sequencing and the format of the presentation and the descriptions used for line items to achieve a fair presentation in the specific circumstances of that entity.

Since the results of these studies will be the relevance that will lead to a final form of performance reporting, in this section we will analyze these issues, highlighting both the variety of approaches and also how the proposals can be found in normalizing the disclosure of the comprehensive income.

The current accounting standards allow entities to report the comprehensive income either in a format similar to the profit and loss account, as part of a performance situation, or in a situation which changes in that equity. In the traditional models, in which investors have a rational character and take into account all the relevant information equally, regardless of their position in the financial reporting, it is considered that the place or situation in which is presented the comprehensive income and its components do not have a special importance. Others authors (Maine and McDaniel, 2000) think that there weighs considerably the positioning of the comprehensive recovery mode in the accounting information in decision-making processes, preferring a comprehensive presentation of all elements in a different situation on financial performance. The opponents of the concept of the comprehensive income make two key criticisms in recent IASB proposals on performance reporting:

- elements which fall within other comprehensive income can mislead the performance

measurement and value accounting entity and can facilitate handling by management;
- could reduce the capacity and quality of information carrying amounts (Baker, 2004).

These conflicting opinions stress the importance of the way in which the new reporting format of performance will be achieved, it will have consequences for the efficiency of capital markets, and hence the use of accounting information to determine the market value of an entity and exchange rate. Oliver Ramond, Jean Francois Casta, Stephen Lin (2007) identify the following main themes that mark the debates around the IASB-FASB joint project:

1. To what extent is relevant the comprehensive income and its components in the context of specific investment decisions of capital markets?
2. At the aggregate level, the overall result is a quantity that provides relevant information in addition to those provided by the net result and the result of exploitation?
3. At the individual level, other comprehensive income provides relevant information for determining the amount, in addition to those obtained by analyzing the net result?
4. In terms of relevance to the evaluation can there be observed differences in perception between other comprehensive incomes reported and unreported separately in this manner?

4. Conclusions

The introduction of *a new concept of comprehensive income* and the concerns to create a dedicated synthesis situation happened as a result of expanding the usage of fair value as the evaluation basis, a determined modification, in its turn, by the changing perspectives of the objectives of financial reporting, namely the primacy of providing useful information for decision making assessment of interests in entities the shareholders owned at the expense of exclusive assessment process resource administration by management.

In the Anglo-Saxon opinion the purpose of accounting is to inform investors. The central indicator should reflect market fluctuations. Ordering the measurement at a fair value of certain assets and liabilities (especially the financial ones) the referential IFRS adopts a broad of a financial performance. The criteria in measuring the performance are not limited only to an operational dimension. The entity's ability to optimize the management of its assets and liabilities is exhaustively surprised.

Therefore, the relevant amount in terms of performance is given by changing the size of investor's wealth, in other words changing its interest in the net assets of the entity marked at a fair value. The result can be a measure of performance only to the extent that incorporates all the changes in net asset size, independent of their nature, changes due to exploitation as well as changes due to market conditions, especially the ones of the fair value.

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FINANCIAL REPORTING FROM THE REFERENCE THEORIES' PERSPECTIVE

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Abstract: *International accounting standards are underpinned by a normative approach of accounting, in the sense that these are based on conceptual accounting framework assimilated by a theoretical framework. The conceptual framework's development is based on a priori theory, initiated by Chambers, in his article published in 1955, where he defends the need for a theory of practical accounting as a detachment from descriptive theories of an inductive approach. Developing the accounting standards on such theories is the result of deductive logic, while national regulations are based on an inductive approach. Furthermore, the wording of the national regulations concerning consolidated or social accounts is not explicitly dedicated to the privileged users of financial and accounting information. The clear position of the IAS/IFRS conceptual framework, directed to investor, places the international accounting model to the basis of agency theory.*

Keywords: *financial reporting, accounting model, International Accounting Standards, conceptual framework, agency theory, normative theory.*

Classifications JEL: *M 41.*

1. Financial Information and Agency Theory

As early as 1776, Adam Smith admitted the existence of problems arising from the **agency** relationship, arguing that the separation between managers and owners of large corporations leads to a lower efficiency of economic organization (Charreaux, 1987).

In 1932, Berle and Means, stated in their book on modern society: "the owner who invests in a modern society delegates the management of his property to the ones that run the company. He has changed his position of independent owner of the company with the one of a simple beneficiary of capital income". This separation between the functions of ownership and decision-making is the source of corporate governance issues, which has contributed to highlighting the importance of accounting and financial information's role in what regards the agreement between shareholders/managers, or in a broader perspective, between many partners involved in the entity's activities, also called stakeholders.

Gibbins, Richardson and Waterhouse (1990) has defined financial reporting as "any deliberate disclosure of financial information, either numerical or qualitative, legal or voluntary, or through formal or informal channels" and indicates the fact that both quantitative and qualitative information has an informative value. The definition of governance we keep is the one proposed by Charreaux that exceeds the limits of shareholding vision: "governance system is a set of mechanisms that define and delineate the discretionary space of enterprises' leaders" (Charreaux, 2009).

The IAS / IFRS conceptual framework implicitly adheres to the agency model, in its simplest form, namely it is only interested in the agreement between managers and shareholders (Colasse, 2006). The analysis conducted by Jensen and Meckling (1976) regarding the agent relationship has been followed by the works of Watts (1977) and Watts and Zimmerman (1978), where a theory of financial statements is based on the agreements within the entity. Jensen and Meckling have defined the agency relationship as being "an agreement by which one or several persons (the principal(s)) hire another person (the agent) to fulfill in its/their name, some tasks inducing delegation of power in decisions-taking by the agent" (Jensen and Meckling, 1976). Although this definition is generally used as reference, Charreaux, G., (1987) proposes a new definition: "we say that an agency relationship is formed between two (or several) parties when one of these two parties, designated as agent, as the other's representative, designated as main party, in a decisional

specific area". Both models are very close and appeal to notions of: contract, representation and delegation.

However, Jensen and Meckling (1976) extend agency theory in a cooperation form, including relations, not necessarily formalized through a main agent and eliminates the problem of identifying this. This theory is based on a logic borrowed from the neo-classical economic theory: an approach from the point of view of "homo economicus" and maximizing individual usefulness. Subsequently, an agency theory extended to all stakeholders was proposed in 1992 by Hill and Jones.

Regardless of authors' vision on agency theory, financial information is a key-element of the relationship between entity and its investors, whether they are shareholders or creditors. The positive agency theory can highlight potential conflicts emerging from these relationships, and the research done on this topic suggests mechanisms for solving these conflicts. Among the conflict sources, asymmetric information is visibly the most important and the different regulations adopted, after getting aware of the problem, contributes to the effects limitation. The conceptual basis of IAS/IFRS standards first retains the approach to "investors" of the agent relationship, while entity has implicit or explicit contractual relations, with a series of partners.

2. Financial Information and Normative Theory

The need for normative theory regarding the goals, scope of use, preparation and submission of financial-accounting reports, was the more necessary, since the accounting standards and regulations formulate a series of liberties concerning the fact that: an entity may also use other names for the financial statements, than those set out in standards and regulations; the entity has the discretion to derogate from regulations and submit additional information out of the need for relevance and accuracy (Ristea, 2013). Over time, many normative accounting theories have been developed by the number of well-known academics.

However, normative theories have not generally succeeded to be integrated in the accounting profession, or to be mandated in financial accounting regulations (Deegan and Unerman, 2011).

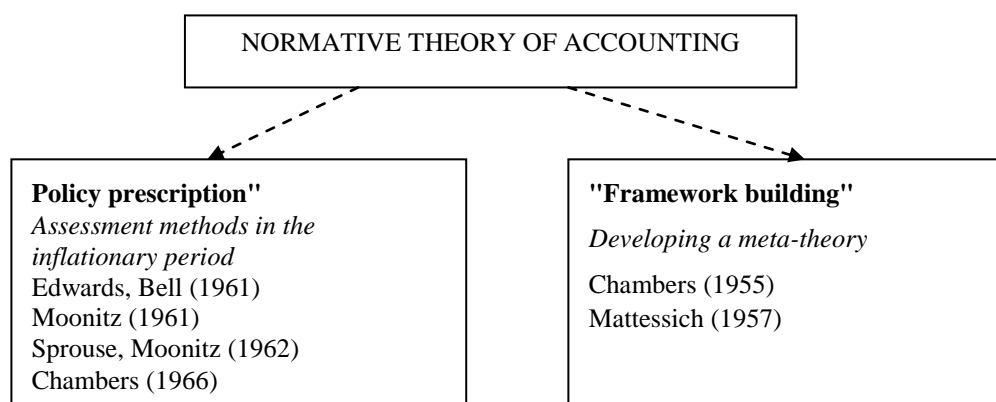
The normative theory was formulated in the 50's by the will of an academic group as a response to the lack of accounting conceptual bases, deemed as harmful¹. Accounting theory was at the time a "simple descriptive and classifying approach that did not allow the establishment of hierarchies between the frequently unreliable accounting principles" (Colasse, 2005). Thus, a set of requirements is developed, concerning the conduct of the accounting process (Deegan, 2001). The first conceptual framework was developed based on those elements, published in 1978, the one of American norm-setting body FASB 15. Although normative theory is interested in the users' needs for financial information, this framework is important for its well-defined goals, the financial information's contents being closely connected to the goals related to this.

The 60's are described as "golden age of a priori theorizing" by Nelson (1973) because a series of normative theories have been developed based on the users' needs for information. Dyckman and Zeff (1984) classify specialized literature from the end of the 50's in two branches of normative theory: those authors that support with pro (or con) arguments a certain "policy prescription" accounting treatment and those whose main goal is to establish the fundamentals necessary in choosing an accounting method - the "framework building" approach. The "policy prescription" approach is the first place

¹ AAA –Committee on Concepts and Standards for External Financial Reports (1977), Statement on Accounting Theory and Theory Acceptance, American Accounting Association, p. 6

concerned with the general issues of assessment and outcomes, while "framework building" aims to develop a general theory of accounting (fig. no.1).

Figure no. 1. Different trends of normative theory



Source: own adaptation.

The "policy prescription" branch of the normative theory has been clearly influenced by the issues of value measurement, still valid, especially in Europe, after the adoption of IAS / IFRS. The second part of the normative theory - "framework building", published at the time, aims to establish the intellectual basis of that treatments that have inspired norm-makers in the preparation of the initial conceptual framework and project of convergence between the American and the international conceptual framework.

The normative nature of Chambers has had a major impact on the norm-setting bodies in developing conceptual frameworks (Colasse, 2005). This formulates 4 assumptions as premises of developing a general theory or a "meta-theory" (Chambers, 1955) :

1. Certain organized activities are put into application by entities that exist thanks to the participants' will or cooperation.
2. These entities are rationally managed, that is – they respond effectively to the participants' expectations.
3. Monetary reporting of the transactions and relations of the entity provides a means to facilitate rational management.
4. Developing such reporting is a job task.

Figure no. 2. The normative meaning of the performance concept

PERFORMANCE	OUTCOME	CONCEPT OF CAPITAL
Physical capital Productive capacity Measured in physical units		Financial capital Measured in monetary units
	Nominal capital Rating at the origin value	Invested purchasing power Rating the current value
Performance The productive capacity at the end of a period exceeds the expectations of the period's beginning.	Performance If the difference between the nominal capital at the end and beginning respectively of a period is positive. Held profits are not included in accounting.	Performance The purchasing power at the end of a period exceeds the expectations of the periods beginning. Held profits are profits included in equity's accounting.

Source: adapted form Platet–Pierrot, F., 2010. *L'information financière à la lumière d'un changement de cadre conceptuel comptable: Étude du message du Président des sociétés*

cotées françaises. [online] Available at : <<http://tel.archives-ouvertes.fr/tel-00480501>> [Accessed 1 March 2021].

Certainly, all the four sentences are to be found in the conceptual framework made by IASB. This states that the financial statements are intended to provide information on entity's performance and financial position for decision-making, but without explicitly defining what the performance concept "does cover".

The goals of financial reporting from the accounting normative theory perspective contributes to the identification of different models that cover the concept of performance, particularly concerning the intended users. This theory provides an image of what a piece of financial information should include, according to the accounting model used by its formulators.

3. Complexity of current financial reporting model

A common critique, made by those that question the usefulness of IFRS financial statements for investors and analysts, is that the financial statements have become too complex. These state that it is difficult for investors and analysts to understand some of the information provided in the financial statements and to assess the relative importance of information. Some critiques refer to "excess of information".

We have identified a series of complexity sources, such as: business operations becoming more complex, complexity of regulation framework, entity's and stakeholders' change of attitudes. As the working group says, ever more complex reporting requirements are not a primary source of complexity in financial reporting, but rather a consequence of modern business operations' complexity and diverse needs of the investors. The concern for the difficulties that investors and analysts have to cope with in understanding financial statements stem, partly, in a failure to understand the financial statements prepared in accordance with IFRS.

Some critics argue that financial statements should be easy to understand for all investors, inclusively the so-called "mom and dad investors"¹. However, IASB has made clearly known the fact that IFRS financial statements are directed to investors, since they are quite sophisticated financially. In its conceptual framework from 2010, for financial reporting, IASB states that "Financial reports are prepared for the users that have sufficient knowledge concerning business and economic activities and that examine and analyze information with due care" and it is added : "...sometimes, even the well-informed and careful users need to seek the assistance of a counselor in order to understand the information on complex economic phenomena"². However, accepting that the target public for IFRS financial statements is narrower than some critics might expect, we agree that the usefulness of these financial statements to investors and analysts could be strengthened by providing greater focus on these in the company's financial report.

Legitimate concerns about the usefulness of the company's annual report as a whole and the usefulness of the financial report, as well as their components as two different reports indicate that there are two main reasons: the growing trend for financial and material information so-called "inconsistent information (templates)" to be included in financial statements, and the inclusion in the annual report of additional information that are not required by IFRS.

There has been a tendency for the inclusion of immaterial information in the

¹ It comes from the translation of "mom and dad investors" and designates a smaller group of non-professional investors, namely the persons that hold or desire to purchase shareholders, but have little experience or knowledge

² IASB (2010) The general conceptual framework for financial reporting, Paragraph QC32, available online at http://www.minfin.md/common/actnorm/contabil/standartreport/35323_RO_Conceptual_Framework_2011.doc.

financial statements. IFRS are clear on this point: the companies are obliged to comply with the requirements for recognition, assessment and submission demanded by IFRS if the failure to do so would lead to omissions or misstatements that could influence the economic decisions the users make based on the information in financial statements. Unfortunately, an ever greater number of companies choose to include all the information contained in IFRS, without applying this materiality test. This could be due to a number of reasons, but most likely it is the fear of making a decision, which later proves to be wrong and could subject the Managing Board to litigation and/or to avoid prolonged talks with the company's auditors. There is also a growing trend within companies to include templates (standardized information) in their financial statements. This information required to be disclosed under IFRS needs the exercise of judgment, for example, disclosure of information concerning the sources of estimated uncertainties, which the companies, in cooperation with their auditors "standardize", in order to reduce the risk of litigation. Through the "purification" of this information, companies make financial statements less useful to investors.

The concerns about information excess in annual and financial reports come from a great number of sources. The inclusion of immaterial information in financial statements, previously mentioned is one. Another aspect is to include information that is not required under IFRS reporting in another section of the annual report. Another representative source regarding the "excess of information" in the financial report is given by the submission of potentially irrelevant information required by IFRS. When IASB establishes new standards or modifies the existent standards will be usually added to the amount of necessary information. IASB rarely submits these requirements of financial information disclosure to a critical assessment concerning their relevance to investors and analysts. One of the reasons for failing to do so is the lack of a "conceptual framework" to assess disclosures. In acest context, IASB has signalled the intention to develop a "framework for information disclosure", as part of the conceptual framework project.

Finally, the difficulties encountered by investors and analysts in understanding the information in financial statements may be caused by the accounting standards that are poorly designed. The poorly designed standards, when applied, cannot produce information on complex transactions that is transparent and easy to understand and can have as effect the perception of complex financial statements.

The poorly designed standards are often the result of including the requirements based on rules and of other requirements derived from the compromises made with the electors of standardization bodies. When the detailed rules are included in accounting standards, this is due to the concerns about less prescriptive requirements (known by the name of "principles"), which the formulators abuse of in the financial statements preparation. Ironically, the ones that desire to engage themselves in an opportunistic behavior find rule-based standards easier to "fool" than the principle-based standards, such as those in the United States of America. The requirements that reflect compromises are sprung from the desire to achieve a result that could not be the ideal approach of the standardization bodies, but which will lead to an improvement in the financial reporting. IFRS are not free from rule-based requirements as they are neither free from requirements led by compromises. Many of these standards have been improved as early as the beginning of IASB in 2001. However, certain deficiencies that are the cause of complexity in financial reporting are maintained. Since its inception, IASB has endeavored to develop IFRS by using an approach based on principles and has seekd to reduce to minimum the adverse impact of outcomes based on comprise. However, the convergence program with FASB threatens to undermine its attempts to do so, due to the tendency of FASB to rather support rules, and du to the inevitable compromises resulting from the combination of the

two types of independent standards to reach to convergent solutions. To the interest of creating more transparent and easy to understand financial statements, IASB should try and resist this threat in designing its standards, specifically IASB should discontinue the convergence project with FASB as soon as possible.

4. Conclusions

Regardless of the authors' vision on agency theory, **financial information is a key-element of the relationship between entity and its investors**, whether they are shareholders or creditors. The positive agency theory can highlight potential conflicts emerging from these relationships, and the research done on this topic suggests mechanisms for solving these conflicts. Among the conflict sources, asymmetric information is visibly the most important and the different regulations adopted, after getting aware of the problem, contributes to the effects limitation. The conceptual basis of IAS/IFRS standards first retains the approach to "investors" of the agent relationship, while entity has implicit or explicit contractual relations, with a series of partners.

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CRYPTO-CURRENCIES – A BET OF THE FUTURE

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Abstract: *Although people are used to using money in physical form or through accounts, since 2009 a surprising and skeptical currency variant has emerged, called virtual currency, digital currency or cryptocurrency. In other words, with the advent of the virtual currency called bitcoin, the financial world has changed. The change is accepted in the real world, the proof being that after bitcoin many other currencies of this kind have appeared and appear constantly, many people look at them with confidence, invest in them and accept them as a means of payment. However, their existence is not yet regulated, and it is known that the currency is currently defined as a means of payment issued and guaranteed by a sovereign State or by the European Union through national banks or through the European Central Bank. For cryptocurrency no one guarantees! For now! More and more investors are wondering what cryptocurrencies are, how they can buy bitcoin, ethereum and others, what is the best time to buy them, where to learn about them, about ICOs, electronic wallets (wallet) and how they can turn virtual currencies into real money.*

Keywords: money, cryptocurrency, virtual currency, electronic commerce, technology.

JEL Classification: E42, E44.

1. Short presentation. Definition; Traits

According to the website of the National Bank of Romania (<https://bnr.ro>), it must be said from the beginning that there is no definition of crypto-goods (the whole spectrum of virtual currencies was thus included). They are not issued or guaranteed by a central bank or public authority. Depending on their characteristics, they can be used as a means of payment, as an investment method or means of access to goods or services.

According to Wikipedia, cryptocurrency (<https://rowikipedia.org>) is a surrogate currency, a type of digital, virtual, non-bank currency, used as a means of payment. The cryptocurrency name indicates that this means of payment uses cryptography and is decentralized to control transactions and prevent double expense, a current problem for digital currencies.

The word cryptography (<https://www.descopera.ro>) comes from the Greek language, from the joining of two words: "kryptos", with the meaning of hidden, secret and "graphein", used to denote the action of writing. The advantage of cryptograms is given by the way they work, instead of physically hiding a signal, they allow the transmission of information without a third party being able to find it out. A cryptogram is based on a systematic method of manipulating its contents, called an algorithm. Applying an algorithm to a text results in a mixture of signs that, in the absence of a decryption key, will seem absurd.

The Directive (EU) 2018/843 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing (AMRD V) provides that „virtual currency” means a digital representation of value which is not issued or guaranteed by a central bank or public authority, it is not necessarily linked to a legally established currency and does not hold the legal status of currency or money, but it is accepted by natural or legal persons as a means of exchange and which can be transferred, stored and traded electronically.

The mistake to consider the virtual currency (cryptocurrency) as an electronic currency is often made. According to the law, this is not an electronic currency. Thus, in Romania, Article 4(f) of Law 127/2011 on the activity of issuing electronic money (<https://lege5.ro>) defines electronic money as „an electronically stored, including magnetic monetary value, representing a claim on the issuer, issued on receipt of funds for the purpose of making payment transactions and which is accepted by a person other than the electronic money issuer”. In short, electronic currency is the electronic version of banknotes and coins, which can be stored on an electronic payment device (e-money). It is usually used to make small electronic payments.

What is not regulated, can not be forbidden!

Cryptocurrencies are technology, so the authorities can't ban it, but they can regulate the way they're trading. If we accept the most popular paradigm, that "bitcoin is used by criminals", then we must create that system of tracking and dismantling crimes. If we recognise that dollars, euros or even totally unexpected things like shoes used as currency by criminals cannot be stopped, then there is necessary to make clear anti-money laundering (AML) regulations.

Some features of the cryptocurrency

It is necessary to list them for certain clarifications. Such:

- although it is called a virtual currency, it should not be confused with electronic currency governed by Law No 1/2002. 127/2011 from Romania or the world financial legislation;
- although pursuing the same purposes as ordinary currencies, it does not enjoy the support of a government or other state body;
- it does not provide for attached rights (such as the right to receive dividends);
- it is used as a means of payment for the purchase or sale of goods or services between two third-party different persons to the issuer of the currency; investment method; stock storage (bitcoin, litecoin, etc.);
- they aim to fulfil the role of facilitating payments for purchases or other financial transactions, aiming to represent an alternative to currencies issued by central banks on the basis of the sovereignty of States;
- the potential benefits are: the possibility to make transfers without geographical limitations; low trading costs; the possibility of public transaction verification.

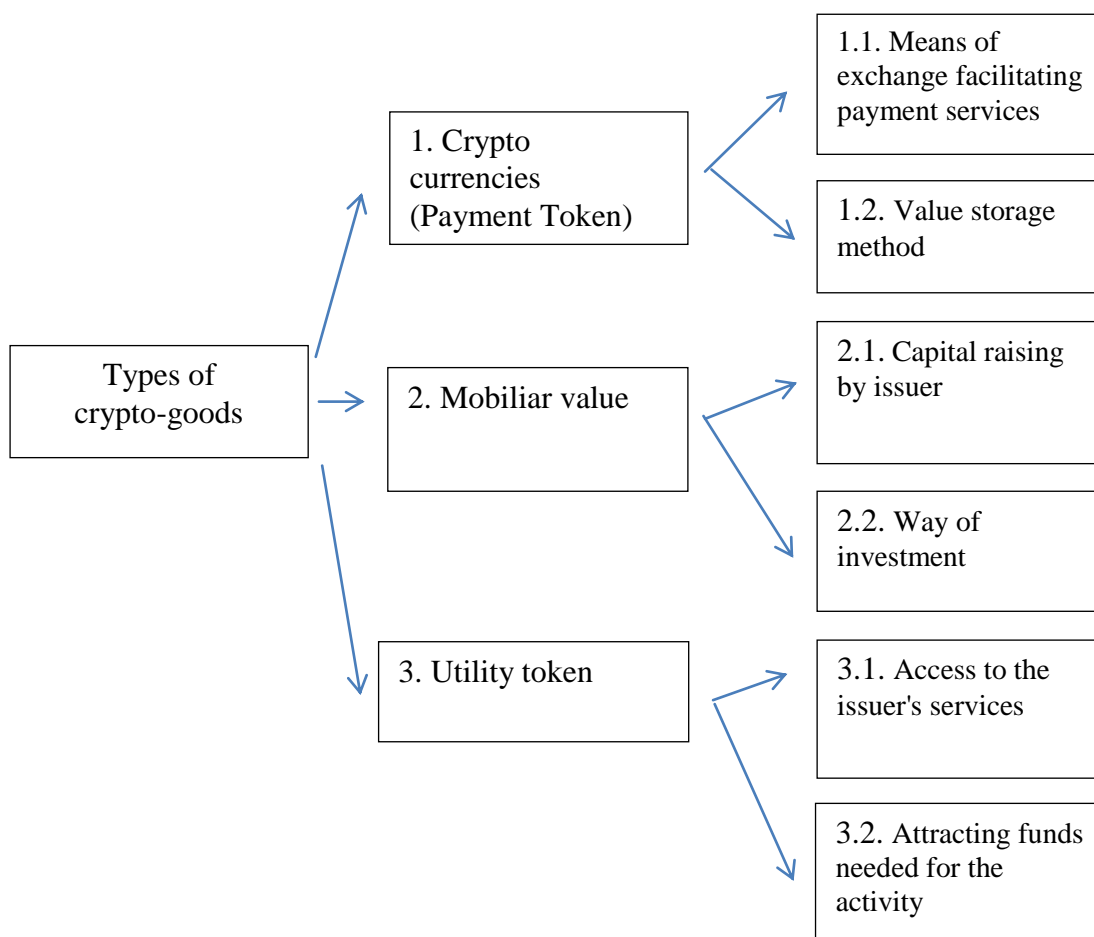
A token is used attached to a cryptocurrency. We use the name "token" for numismatic objects other than coins and banknotes. Token:

- is found in casinos as chips, but also as vouchers, gift cards or in board games where they play the role of currency or points.
- has a connection to computer networks, as cryptographic proof of access rights. Entering a token is actually ensuring data security, like a jam token. For example, because bitcoin is a virtual currency, then token is a virtual token.
- it is called a device for generating unique codes - the older physical equivalent of the Google Authenticator app, used, for example, to secure online bank accounts.
- it can play the role of money. It can usually be paid strictly for certain types of specified services. The most common such token is related to a project, company or person. Traditional money is being replaced. A rapid, decentralised understanding based on intelligent regulatory agreements using block technology is allowed.
- can be used as a cryptographic confirmation of property, for example, shares of companies.

Such tokens are called security tokens and are a kind of titles. They are often issued under the Initial Coin Offering (ICO). The Blockchain startup function issues digital tokens and then sells them as blocks to fund the project.

Various tokens can be created on different platforms (e.g. ethereum, EOS, NEO). Each has its own standard. The most popular platform on which most chips rely is ethereum (<https://tradesilvania.com>). The most popular standard is ERC20 (many known crypt accounts, for example, Omisego, Golem, Augur, SunContract, Holo). The new standards are dynamically developed, which correspond to the need for tokenization of securities, real estate or unique marking elements (e.g. CEC-721).

Figure 1. Types of crypto-goods



Source: www.bnr.ro

2. About investment

Classic currencies, from the U.S. dollar to any other currency issued by the national bank of a state, come and are linked to a country or community of countries. Geographically, their use is limited, with the exception of the U.S. dollar. Nor can they be used for payment wherever we want. Traveling to a foreign country requires the use of accepted money in that country, so bank exchange in that currency, or at best in dollars or euros.

Under these circumstances, more and more people are wondering why not use cryptocurrencies? The arguments would be that:

- they are valid all over the world;
- they are most often converted into globally accepted currencies (dollar, euro, Japanese yen);
- they are relatively stable;

- they have no geographical constraints;
- they can be stored online and offline in crypto-wallets;
- there are around 1500 different available coins.

Experts say investing in cryptocurrencies would be one of the most advantageous in the world.

It can be done in two different ways: either invest in a known currency or choose a new one, just launched.

Investing in bitcoin is not necessarily recommended as the most profitable choice just because bitcoin is the most well-known currency of its kind. As a surprise, the recommendations are for new cryptocurrencies, which would be released through the ICO, because they would have much higher yields. The cryptocurrency market exceeds \$500 billion, and investors are looking for opportunities to access a piece of the world's new "El Dorado" (<https://www.zf.ro>).

If the first option is chosen, that buying something already known, this is done through exchange platforms. The buyer initially needs a virtual wallet (wallet) with unique private code/key. In order not to be vulnerable to cyber attacks the wallet must be secured. If a user loses their private key, no one can give them access to it, and the wallet becomes totally inaccessible.

For caution, but also motivated by the fight against money laundering, platforms must have customer information. Some ask for a picture of their ID card and taking a "selfie" photo in which the user must appear with his bank card in his hand, leaving the last four digits on the card to be seen. But, for now, this is not a uniform procedure, although it is regulated.

The second investment variant is the one in a digital currency ready to be launched, a procedure called iCO. ICO has two thresholds called "*Softcap*" (the first capital threshold, reached without problems) and "*Hardcap*" (the total capitalization threshold that the company wants to accumulate).

There are three stages of the purchase: "*Private sale*" (authorized investors and big players chat with the team behind the cryptocurrency and become the first investors), "*Pre-sale*" in which the number of digital currencies desired is made using a blank contract, and the last one, "*Crowdsale*" or the purchase itself.

As evidence of enormous interest in such acquisitions, some ICOs close the Crowdsale period after 30 seconds. Success is measured in the subsequent yield, and we choose only one example: at launch the ethereum currency had the price of \$0.314, the return on investment reaching after two years at 340,000%.

ICO releases are many each week, but not all of them have the expected success. As criteria of choice, the project team matters a lot, so that you know to whom to entrust the money, then the marketing of the project, the idea behind the project because, after all, a promise is being bought, its blockchain technology is being bought and so on.

The best time to buy is the one that applies to any purchase, i.e. when the market is down, when the price is low. For sale, obviously it's the opposite of this situation.

This market is very flexible, versatile, but also unsafe. If someone scares uninformed investors with an announcement, they will start selling, to the satisfaction of the experienced, who take advantage of the situation and buy at low prices.

So, we find that the vulnerability of the market is due to the lack of experience and financial education of newcomers. As in any other market it is necessary to document, otherwise everything will be guided by greed ("*to buy for myself, why others only*") and fear ("*oh, I'm losing money, let me sell immediately*").

There are two examples circulated in the online environment, namely September 2017 and January 2018, concerning the two emotions. In September, news emerged

showing a desire by some states to regulate the cryptocurrency market, followed by a scare of unsavory investors who sold immediately, leaving the greedy ones to increase demand by 50% on some currencies.

You can learn and there are people willing to be teachers. For example Intel DevTechnologies, is a company that provides education and consulting, or Bitcoin platforms (<https://bitcoin.org>), Kriptomat (<https://kriptomat.io>) or many others. And "students" will learn "emotion management", macroeconomics and technical analysis of graphs (important, but less relevant than in the case of stock markets).

What matters most is that one shouldn't forget for a moment that cryptocurrencies are not shares, they're not regulated, they don't offer any guarantees. So said, whoever invests must be prepared to lose that money.

3. The most popular cryptocurrencies

Undoubtedly, Bitcoin is the first created and also the most popular cryptocurrency, the leading in terms of market capitalization.

The amount being said to be around \$175 billion invested so far, with 12.5 bitcoins being issued every 10 minutes and the last bitcoin issued in 2140.

It is increasingly present in the world's retail market as a currency, and the fact that in January 2021 an American football player, Russell Okung, was transferred with bitcoin (<https://www.playsport.ro>) and receives half his salary in bitcoin also says a significant thing about the future of this currency and financial markets.

Standards are set after bitcoin, it is the basis for all the other ones created later as alternatives to bitcoin.

Note, however, that bitcoin is not anonymous, as desired. Transactions are stored publicly and permanently on the network, so you can see your balance and transactions. Being in the experimental stage, operationalization develops continuously and increases the experience of users, who seek solutions for anonymity. One would be, using an address once.



The unwritten consensus says that all that have emerged are *alternative coins* or "*Alt-currencies*". Not all of them will pass the test of time and market resistance!







Ripple - could be the next bitcoin, thanks to a rapid increase in value and popularity in a very short time. They're capitalized in about \$50 billion.









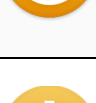
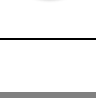
Ethereum - the concept at its base is called "smart contract", it offers an exchange of services – coins that run automatically directly proportionally.



But the easiest way is to follow them in the table below, the top 20 cryptocurrencies (<https://kriptomat.io>).

Tabel nr. 1. Top 20 cryptocurrencies

Sygn	Name	Cod	Purpose and specialty	Maximum Coin Offer
	Bitcoin	BTC	The first and most popular decentralized cryptocurrency. It is best accepted, it has the highest volume and the largest market share.	21,000,000
	Ethereum	ETH	Ethereum is a blockchain platform and Ether is the token that powers the network built on that platform. The blockchain platform is open source and serves as the basis for the	There is no current limit

Sygn	Name	Cod	Purpose and specialty	Maximum Coin Offer
			development of many other solutions.	
	Ripple	XRP	XRP is not called Ripple, but XRP is Ripple's native digital asset. Ripple Labs develops different solutions for the financial sector, and XRP is designed to help speed up cross-border payments and reduce trading costs. The network can process payments in seconds.	100 Billion
	Bitcoin Cash	BCH	Bitcoin derivative (or fork in terms of blockchain), which manages to use its blockchain platform to process more data volumes faster, mainly due to larger blocks. Keep in mind that this is not necessarily an improvement over Bitcoin.	21,000,000
	Litecoin	LTC	If they say Bitcoin is the gold standard in the cryptocurrency world, then Litecoin is often silver. It is characterized by higher speeds and transaction security.	4,000,000
	Neo	NEO	A platform also known as the Chinese Ethereum, due to its similar features and proposed improvements – especially in terms of security.	100,000,000
	Cardano	ADA	Their team is developing a blockchain technology that exploits the latest research and engineering practices to build a system that will safely run decentralized applications and smart contracts.	45 Miliarde 45 Billion
	Stellar	XLM	It is similar to Ripple, as the platform is intended for financial transactions, but it also allows for faster currency conversion – crypto and real	There is no current limit

Sygn	Name	Cod	Purpose and specialty	Maximum Coin Offer
	IOTA	MIOTA	A platform designed to support the "Internet of Things" that connects all types of imaginable devices and support transactions between these devices.	2.78 Quadrillion
	Monero	XMR	A cryptocurrency whose characteristic is transaction encryption – the result is extreme security and anonymity, with almost no tracking mode.	18,400,000
	Dash	DASH	The name Dash is derived from the words Digital Cash. It's an improvement over Bitcoin in terms of transaction speed and greater anonymity.	18,000,000
	NEM	XEM	Blockchain cryptocurrency that uses a different way of mining and transaction validation.	8,999,999,999
	Ethereum Classic	ETC	O furculiță a Ethereum-ului. A început ca rezultat al gândirii și al filozofiei diferite. A fork of the Ethereum. It began as a result of different thinking and philosophy.	210-230 Millions
	Nano	NANO	Known as Raiblocks, it is a platform for faster transactions without commission for intermediaries.	133,248,290
	Lisk	LSK	A platform similar to Ethereum. JavaScript knowledge is sufficient to develop solutions.	There is no current limit
	Qtum	QTUM	Chinese platform for developing smart solutions and contracts with your own blockchain, where app data is stored.	100,000,000
	Bitcoin Gold	BTG	Bitcoin derivative (fork) with the same characteristics, but another mining algorithm that protects low-profile miners.	21,000,000
	Zcash	ZEC	Bitcoin upgrade with a public blockchain that manages better, completely anonymous transactions.	21,000,000

Sygn	Name	Cod	Purpose and specialty	Maximum Coin Offer
	Verge	XVG	A cryptocurrency that aims to become a currency for everyday use, with a focus on reliability, security, speed and privacy.	16,555,000
	Steem	STEEM	A blogging and social networking platform that allows online content creators to monetize their content through a reward system from their users.	

4. Advantages and disadvantages

As in any situation or field, there are a number of strengths and weaknesses that characterize cryptocurrencies. The most important, selected by Wikipedia are:

Advantages:

- The system is decentralised, there is no central authority, such as a central bank
- Personal user data is hidden and cannot be accessed
- You can create an encrypted backup of the virtual currency
- Payment can be made without personal data being associated with the transaction
- Users are always in control of transactions
- Very fast transfer anywhere in the world
- There is no limit on the amount of transfers
- Variable fees

Disadvantages:

- reduced use
- volatility due to the fact that the currency is in limited quantity and its value is given by supply and demand
- the irreversibility of transactions, cancellation being impossible
- prohibition of the use of certain cryptocurrencies in some countries
- the uneven distribution of the cryptocurrency between first and current users
- requires a high level of security
- not all merchants accept the cryptocurrency as a payment method.

5. National Cryptocurrency and aspects regarding legality

It may be hard to believe, precisely because there are no regulations in the field, but some states have taken cryptocurrencies seriously and, out of the need for fiduciary money, have launched their own national cryptocurrencies:

- Estonia: Estcoin
- Great Britain: RSCoin
- Portugal: CryptoEscudo
- Russia: CryptoRuble
- Sweden: E-Krona
- Dubai, (EAU): Emcash
- Iran: Crypto-rial
- Turkey: Turkcoin
- Venezuela: Petro
- Japan: J-Coin
- China: Digital Currency Electronic Payment (DCEP)

- Tunisia: e-Dinar
- West African Economic and Monetary Union (UEMOA): eCFA
- Marshall Islands: Sovereign (SOV)

Not everyone trades cryptocurrencies for noble purposes. There are many illegal, criminal, hard-to-demonstrate activities around them, such as: capital theft, money laundering, the use of mining software agents, illegal betting, the sponsorship of illicit or terrorist activities using cryptocurrencies.

What does mining mean, what does cryptocurrency mining mean?
(<https://criptomonede.info>)

Started in 2009, this activity involves the use of equipment with which to process blockchain transactions in exchange for a reward. It works by the existence of bitcoin farms to which anyone can connect online with their own equipment and thus contribute to the processing power.

More equipment means more processing power and more rewards. What exactly does the mining device do? The device once plugged in uses computing power to process as many transactions on the Bitcoin network using a cryptographic algorithm.

Cryptocurrency mining causes newly created bitcoins to be produced through an effort, unable to be copied, gaining real value. The process is called "mining", following the analogy with the production of gold (digging, extracting ore, purifying). In this way, bitcoin, though digital, is as rare as gold and hard to obtain.

Their use can be criminalised and the closure of exchanges and the peer-to-peer economy in a given country can constitute a de facto ban. The legal status of cryptomenes varies substantially from country to country and is still undefined or changing in many of them.

Creating a legislative framework is a challenge because cryptocurrency activity takes place online from any place on the planet. It is extremely difficult, if not impossible, for all states to agree on a unified way of regulating. And then the question arises: must regulation be on states or territories (group of states)?

The regulations and prohibitions that apply to bitcoin, which is as we claimed, the most evolved currency, probably extend to similar cryptocurrency systems.

For example, the specialty literature specifies an "absolute ban" on the trading or use of cryptocurrencies which applies in nine countries: Algeria, Bolivia, Egypt, Iraq, Morocco, Nepal, Pakistan, Vietnam and the United Arab Emirates. A "default ban" applies in 15 other countries: Bahrain, Bangladesh, China, Colombia, Dominican Republic, Indonesia, Kuwait, Lesotho, Lithuania, Macao, Oman, Qatar, Saudi Arabia and Taiwan.

A different attitude is in Iran, a country that in October 2020 announced pending regulations that would require Iran's bitcoin miners to sell bitcoin to the Central Bank of Iran, and the latter will use it for imports. Iran, in October 2020, issued more than 1,000 bitcoin mining licenses.

The Iranian government initially took a stance against the cryptocurrency, but later changed it after seeing that the digital currency could be used to circumvent sanctions. The U.S. Office of Foreign Asset Control listed two Iranians and their bitcoin addresses as part of its list specifically designated by citizens and people blocked for their role in the 2018 Atlanta cyber attack, whose ransom was paid in bitcoin.

There is still no consensus in Europe on the legal use and classification of crypto-goods. The inclusion of crypto-goods in the existing regulatory framework is difficult and it is appropriate to have a balance between the free development of technology and the need for regulation.

The approach so far at European level has been to try to extend the application of regulated legal concepts to crypto-goods, but given the rapid technological development in this area, the solution seems to be the adoption of separate regulations.

6. Conclusion

Far from having finished the subject, one can clearly see an increasing interest in virtual currencies. The goals are different, some open and sincere to carry out legal transactions, to invest in a new currency, perspective, others less legal, with hidden and criminal purposes.

With advantages and disadvantages identified, the field is a pioneering one and forecasts show a future that will certainly attract our attention!

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WAYS TO INCREASE TRANSPARENCY IN THE EXECUTION OF PUBLIC EXPENDITURE AT THE LEVEL OF LOCAL ADMINISTRATION

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Abstract: *This paper proposes an analysis of the organization of public finances in local government in Romania, the share of local revenues and expenditures in order to establish the place of the local budgets in the general consolidated budget, the level and structure of local budgets revenues and expenditures, how to consolidate their sources of funding and the destination of the money. The allocation of resources at the local level must be in line with the preferences and needs of the community. Finding a compromise between limited public resources and an unlimited range of needs that required to be met through public spending will be the key to developing balanced, sustainable budgets in any policy option. Thus, local budgets must follow a dichotomous evolution, from financial planning and control tools to performance measurement tools, fiscal discipline and results management. The paper contains a comparative study between two territorial administrative units in Prahova County, one located in urban areas and the other in rural areas. The adoption of digitalization in financial-budgetary management will counteract the negative effects of the lack of transparency in the execution of budgets. To these must add an honest management of the execution and an increased transparency in the spending of public money, doubled by stable and predictable legislation, with unequivocal rules of application.*

Keywords: *local administration, public resources, budget execution, budget transparency, digitalization.*

JEL Classification: *M41, H61, H83.*

1. Introduction

In carrying out this study, we chose two territorial administrative units from Prahova County, respectively Câmpina Municipality and Cornu Commune.

Given the importance and complexity of the topic, the present study aims to provide an overview of local budgets, without claiming to exhaust all aspects related to them. We thus raise a series of questions, to the solution of which we invite both the decision-makers and the executive staff from the territorial administrative units.

Are there differences in the approach to the planning and execution of the local revenue and expenditure budget between the territorial administrative units?

What are the methods of analysis and sizing of budgetary indicators, so that we can have the best possible concordance between the establishment of financial resources, their allocation and efficient management?

What are the main problems currently facing public institutions in managing budgetary resources?

To what extent the development of the methodology of substantiation and analysis of the revenue and expenditure budget, by using a modern financial-budgetary management will lead to an optimization of the activity of the budgetary system, financed entirely or partially from public funds, addressed to public institutions and authorities, financed from public money?

2. Performance-oriented budget: transparency, efficiency and accountability

The traditional approach to the budgeting process starts from *the principle that it is planned on the basis of the previous year's budget, compared to which a percentage increase is expected, depending on a number of factors determined by local public policies*. In order to ensure the efficiency of budgetary expenditures, a public and budgetary policy with objectives, analyzes, recommendations is not enough. It is necessary to establish certain rules and principles, to use techniques and methods that ensure budgetary performance, that promote transparency, efficiency and accountability in achieving and respecting budgetary discipline. Achieving budgetary performance directly contributes to economic, social, cultural, ecological development.

The main idea of a performance-based budget is to allocate resources to programs and projects that produce results. In this form of budget elaboration and execution, the budget is presented according to a theoretical model that links it to the policy of measurable objectives, and the expenditures are correlated with the policy of results achieved. The performance-oriented budget contributes to increasing the transparency of the development phases, as the administration must specify in its budget documents its core objectives, programs, actions and related costs and use indicators to measure results. Also, the performance-oriented budget improves accounting and streamlines the allocation of resources, as the administration is required to report through the annual accounts on the results actually obtained.

Thus, the performance-oriented budget provides the basic information to assess the actual cost of the programs and to see if the administration has spent public money operationally and effectively.

Under an ideal system, the financial resources set out in local budgets should be able to fully cover the proposed expenditure, in order to meet the needs and requirements of local governments. To achieve this goal, the responsibilities and competences of local authorities must be correlated with the revenues of local budgets, but in reality there is no country in the world where this can be fully achieved. That is why central authorities need to give local administrative units greater autonomy and financial responsibility. The financial system on which these resources depend must be sufficiently diversified and evolving to enable local governments to achieve the objectives they set correctly. The efficient functioning of local public finances and services is the condition for a modern socio-economic development. The experience of many countries has shown that local authorities are better able to mobilize and manage resources by setting *priorities, levels and criteria for the production and distribution of public goods and services closer to the needs and standards of the community*, to which they respond directly and effectively. who are in constant contact. In accordance with the *principle of the reality* - local budgets must reflect the concrete amount of resources that can be procured locally, as well as the needs of the community. In accordance with this principle, *the most prudent options should be taken into account* in the realization of budget revenues and expenditures, in order to avoid possible imbalances that could exist in the budget execution.

3. Study on the elaboration of local budgets in 2020

The draft budget of revenues and expenditures was elaborated according to the provisions of Law no. 273/2006 on local public finances, with subsequent amendments and completions and of Law no. 5/2020 - Law on the state budget for 2020, the distribution on administrative-territorial units of the quotas deducted from the income tax and of the amounts deducted from the VAT for balancing the local budgets.

The main factors underlying the substantiation of budget revenues and expenditures were:

- the incomes established by HCL no. 172/2019 regarding the local taxes and fees for 2019;
- the priorities established in the formulation of the budget proposals;
- the opinions of the citizens collected from audiences, mass media, greetings, addresses to the mayor's office;
- the detailed expenditure proposals of the tertiary authorizing officers;
- economic and social development programs in perspective at local level.

3.1 The draft budget of revenues and expenditures of Câmpina Municipality

Local budget revenues of Câmpina Municipality consist of:

- * Own income: taxes, fees, contributions, other payments and other income;
- * Quotas deducted from the income tax, in the amount of 27,522.00 thousand lei;
- * The amounts deducted from the income tax for balancing the local budget, in the amount of 1,022.00 thousand lei;
- * Amounts deducted from the value added tax in the amount of 8,185.80 thousand lei, for financing the decentralized expenses at the level of communes, cities, municipalities, related to the standard cost per student according to art. 104 paragraph (2) of Law 1/2011 on national education, housing heating aid, the rights established by Law 248/2015 on stimulating the participation in preschool education of children from disadvantaged families, the rights of children with special educational needs according to H.G. 904/2014 received by Decision of the Director General of D.G.R.F.P. Ploiesti;
- * Amounts deducted from the value added tax for balancing the local budgets, in the amount of 1,772.00 thousand lei, received by the Decision of the General Director of the D.G.R.F.P. Ploiesti.

According to art. 26 of Law no. 273/2006, on local public finances, amended and supplemented, *the draft budget was built on two sections:*

1. Operation Section;

2. Development Section.

If the revenues of the development section are lower than the expenditures of the same section, the budgetary balance is ensured by payments from the revenues of the operating section to the development section and the use of the surplus of previous years.

At the end of 2019, a surplus of 1,767,337.73 lei resulted, which is used as a source of financing for the objectives proposed in the development section.

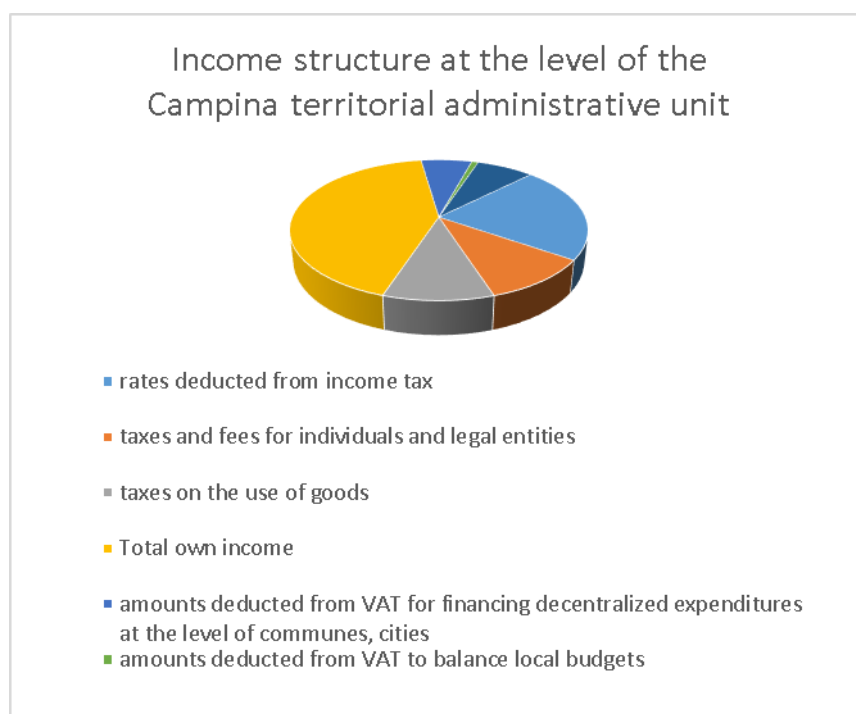
Through the draft local budget of Câmpina Municipality for 2020, revenues in the amount of 85,646.28 thousand lei and **expenses** in the amount of 87,413.62 thousand lei were established.

Budget revenues are ordered by chapter and subchapters.

The amounts resulting from the sale, in accordance with the law, of some goods belonging to the private domain will be included in the local budget by budgetary rectification only after their collection, according to art. 29 of Law 273/2006, amended and supplemented.

Budget expenditures are ordered by parts, chapters, subchapters, titles, articles, as well as alienated and paragraphs, as appropriate.

The level of expenditures included in the draft local budget can be rectified during the budget execution as the collection of additional revenues scheduled to be attracted (respectively bank loan / refinancing, capitalization of goods, sponsorships).



The expenses of the operation section are in the amount of 61,818.41 thousand lei and are presented on **each chapter of expenses as follows:**

- Chapter 51.02: Local public administration, 11,950.65 thousand lei, of which:
 - personnel expenses 9,648.33 thousand lei;
 - goods and services 2,261.39 thousand lei;
 - transfers 1.00 thousand lei;
 - other expenses 39.93 thousand lei.
- Chapter 54.02: Other public services, 1,231.53 thousand lei is provided, of which:
 - personnel expenses 996.53 thousand lei;
 - goods and services 125.00 thousand lei;
 - reserve fund 100.00 thousand lei;
 - other expenses 10.00 thousand lei.
- Chapter 55.02: Transactions regarding public debt and loans, 620.00 thousand lei:
 - goods and services 20.00 thousand lei;
 - donating 600.00 thousand lei.
- Chapter 61.02: Public order and national security, 3,671.47 thousand lei, of which:
 - personnel expenses 3,236.97 thousand lei;
 - goods and services 388.00 thousand lei;
 - other expenses 46.50 thousand lei.
- Chapter 65.02: Education, 7,042.19 thousand lei is provided, of which:
 - personnel expenses 260.00 thousand lei;
 - goods and services 5,794.50 thousand lei;
 - social assistance 137.69 thousand lei;
 - other expenses 850.00 thousand lei.
- Chapter 66.02: Health, 1,565.81 thousand lei is provided, structured as follows:
 - personnel expenses 1,336.86 thousand lei;
 - goods and services 25.45 thousand lei;
 - transfers between public administration units 200.00 thousand lei;
 - other expenses 3.50 thousand lei.

- Chapter 67.02: Culture, recreation and religion, 4,603.83 thousand lei, structured:
 - personnel expenses 647.48 thousand lei;
 - goods and services 372.85 thousand lei;
 - transfers between units of public administration 3,202.00 thousand lei;
 - other transfers 70.00 thousand lei;
 - other expenses 311.50 thousand lei.
- Chapter 68.02: Insurance and social assistance, 9,491.94 thousand lei, structured:
 - personnel expenses 4,954.74 thousand lei;
 - goods and services 1,200.00 thousand lei;
 - social assistance 3,164.50 thousand lei;
 - other expenses 172.70 thousand lei.
- Chapter 70.02: Housing, services and public development, 11,176.45 thousand lei:
 - personnel expenses 2,103.62 thousand lei;
 - goods and services 6,789.83 thousand lei;
 - other expenses 43.00 thousand lei;
 - loan repayments 2,240.00 thousand lei.
- Chapter 74.02: Environmental protection, 4,589.65 thousand lei structured:
 - goods and services 4,387.00 thousand lei;
 - other transfers 202.65 thousand lei;
- Chapter 84.02: Transports, 4,322.89 thousand lei is provided, structured as follows:
 - personnel expenses 730.33 thousand lei;
 - goods and services 1,864.75 thousand lei;
 - subsidies 150.00 thousand lei;
 - other transfers 124.31 thousand lei;
 - other expenses 13.50 thousand lei;
 - loan repayments 1,440.00 thousand lei.
- Chapter 87.02: Other economic actions, 1,552.00 thousand lei, as follows:
 - goods and services 300.00 thousand lei;
 - transfers between public administration units 1,252.00 thousand lei;

The expenses of the development section amount to 25,595.21 thousand lei and are distributed as follows:

- capital expenditures of 6,769.15 thousand lei;
- amounts distributed for education 500.00 thousand lei;
- amounts distributed for health 1,300.00 thousand lei;
- amounts distributed for culture, recreation and religion 50.00 thousand lei;
- amounts distributed for other economic activities 180.00 thousand lei;
- projects with financing from non-reimbursable external funds related to the financial framework 2014 - 2020 of 16,796.06 thousand lei.

The budget of internal credits for 2020 is in the amount of 4,552.11 thousand lei.

The budget financed entirely or partially from own revenues and subsidies for 2020 is in the amount of 141.46 thousand lei.

3.2 The draft budget of revenues and expenditures of the Cornu territorial administrative unit

At the level of the Cornu territorial administrative unit, the budget consists of:

I. The detailed local budget for *revenues* by chapters and subchapters for 2020 in the amount of 11,041.00 thousand lei and estimates for the years 2021-2023, on the two sections of operation and development;

II. The detailed local budget for *expenditures* by chapters and subchapters for 2020 in the amount of 12,488.00 thousand lei and estimates for the years 2021-2023, on the two sections of operation and development.

The surplus of the local budget is in the total amount of 1,446,814 lei.

I. The Local Revenue Budget detailed on chapters and subchapters for 2020 is presented below.

According to art.26 of Law no. 273/2006 on local public finances, with subsequent amendments and completions, the Local Budget was established on the two sections:

1. Operating Section

2. Development Section

If the revenue of the development section is lower than the expenditure of the same section, the budgetary balance shall be ensured by payments from the revenue of the operating section.

The total revenues of the Local Budget for 2020 are in the amount of 11,041.00 thousand lei, consisting of:

- **Own income** 4698.00 thousand lei
- **Amounts deducted from VAT** 951.00 thousand lei

Own revenues for 2020 represent 42.55% of the total revenues of the local budget. Their foundation was based, according to art. 5, par. (2) of Law no. 273/2006 on local public finances, with subsequent amendments and completions: “on the finding and assessment of the taxable matter and the tax base” according to which the related taxes and fees are calculated, as well as on other specific elements, as well as the provisions of art .14, paragraph (7) of the same law “at the level of revenues from the previous year”.

Own revenues consist of:

- quotas and amounts deducted from the income tax 2519.00 thousand lei
- taxes and fees for natural and legal persons 1733.30 thousand lei
- taxes on the use of goods 445.70 thousand lei

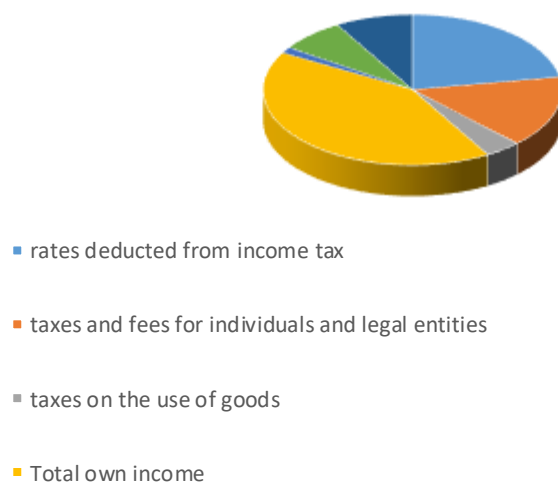
The amounts deducted from VAT are structured as follow:

* The amounts deducted from VAT for financing decentralized expenditures at the level of communes are in the total amount of 149.00 thousand lei and represent:

- expenses according to art. 104, (2), b) and d) of the National Education Law no. 1/2011 with subsequent amendments, 108.00 thousand lei
- housing heating aid 1.00 thousand lei
- children's rights with special educational requirements 40.00 thousand lei

* Amounts deducted from VAT for balancing local budgets are in the amount of 802.00 thousand lei.

Income structure at the level of the Cornu territorial administrative unit



II. The detailed local budget for expenditures by chapters and subchapters for 2020 is presented as follow.

For 2019, the local budget expenditures are based and dimensioned on the two sections:

- **Operation Section** in the amount of 5,051.50 thousand lei;
- **Development Section** in the amount of 7,436.50 thousand lei.

The surplus of previous years, in the amount of 1,446,814 lei, is found in the development section and is used to finance capital expenditures.

The expenses of the operating section are presented by chapters, subchapters, titles of expenses, articles and paragraphs as follow:

1. Chapter 51.02: Public authorities and external actions, subchapter Executive authorities, in the total amount of 1,515.00 thousand lei, (the necessary amount being 1,809.00 thousand lei) includes the titles:

- personnel expenses in the amount of 875.00 thousand lei
- goods and services in the amount of 640.00 thousand lei.

2. Chapter 61.02: Public order and national security, in the total amount of 136.20 thousand lei for the following subchapters:

2.1 Civil protection and fire protection, for financing the expenses for emergency situations, civil protection, PSI, respectively goods and services in the amount of 6.70 thousand lei;

2.2 Public order, to finance the expenses of the local police department, includes:

- personnel expenses in the amount of 114.00 thousand lei;
- expenses with goods and services in the amount of 22.20 thousand lei.

3. Chapter 65.02: Education, in the total amount of 285.80 thousand lei, includes:

- primary education-16.40 thousand lei
- secondary education-264.60 thousand lei

4. Chapter 67.02: Culture, recreation and religion, with the following subchapters:
 - 4.1 Communal libraries, the distributed amount is 81.60 of which:
 - staff expenses, 53.40 thousand lei (the necessary amount being 70.40 thousand lei);
 - goods and services, in the amount of 28.20 thousand lei.
 - 4.2 Culture-distributed, amount is 49.00 thousand lei of which:
 - goods and services in the amount of 49.00 thousand lei.
 - 4.3 Sports and youth, the amount distributed is 166.80 thousand lei (the necessary amount being 177.50 thousand lei) of which:
 - personnel expenses in the amount of 33.00 thousand lei (the necessary amount being 43.70 thousand lei);
 - goods and services in the amount of 131.30 thousand lei.
 - 4.4. Maintenance of public gardens and green spaces, the amount allocated is 36.00 thousand lei for goods and services.
 - 4.5 Other services in the fields of culture and recreation, 473.00 thousand lei, of which:
 - goods and services in the amount of 200.00 thousand lei;
 - transfers to associations and foundations and religion, 273.00 thousand lei.
5. Chapter 68.02: Social assistance, 1,599.00 thousand lei (the necessary amount being 1,801.00 thousand lei) of which:
 - personnel expenses, 649.00 thousand lei (the necessary amount 851.00 thousand lei);
 - social assistance, 950.00 thousand lei for allowances for the disabled, emergency aid, heating of wooden houses in the cold season.
6. Chapter 70.02: Housing, services and public development, the distributed amount is 470.80 thousand lei (the necessary amount being 556.80 thousand lei) of which:
 - personnel expenses in the amount of 276.50 thousand lei (the required amount 362.50 thousand lei);
 - goods and services in the amount of 194.30 thousand lei for financing the maintenance and operation expenses of the greenhouse and public lighting.
7. Chapter 74.02: Environmental protection, the amount distributed is 18.60 thousand lei for goods and services.
8. Chapter 83.02: Agriculture and forestry, the amount distributed is 1.70 thousand lei for goods and services.
9. Chapter 84.02: Transports, the distributed amount is 218.00 thousand lei for goods and services.

For the development section, the expenses proposed to be made in 2020, in a total amount of 7,436.50 thousand lei are presented by chapters and sources of financing, which form an integral part of this decision, with the following details:

- Chapter 51.02: Public authorities and external actions, 400 thousand lei;
- Chapter 65.02: Education, 2,411.00 thousand lei;
- Chapter 67.02: Culture, recreation and religion, 968.00 thousand lei;
- Chapter 70.02: Housing, services and public development, 1,429.50 thousand
- Chapter 74.02: Environmental protection, 143.00 thousand lei;
- Chapter 84.02: Transports, 2,085.00 thousand lei.

3. Conclusions

Despite the progress that has been made in recent years, in Romania it is still not possible to speak of a **real local autonomy**. Local budgets depend very much on the resources they receive from the central level, the proportion of the latter exceeding 50% in many cases. Very few local communities are able to make enough of their **own income**. At the same time, balancing local budgets is a necessity. Currently, a large part of the Romanian local communities have a pronounced rurality character, which does not allow them to generate enough income. In addition, we must not forget that principles such as solidarity and the elimination of existing imbalances between areas or localities are principles adopted by the European Union and that we should assume. The way in which the balancing is achieved, however, provokes heated discussions every year, until now not finding an optimal formula in this respect. In fact, **the criteria** are also changing. Most suspicions are related to the distribution of these amounts to the counties in the conditions in which there are no clear legal provisions to regulate it, there are **influences of a political and economic nature**.

A solution agreed with both representatives of the communities of developed localities and those with insufficient incomes was for **a higher percentage of income tax to remain locally**, in this case the number of localities that would need sums. for balancing obviously decreasing. **Increasing revenues locally** in this way would be a solution in the case of decentralization. Although considered in itself a positive thing and in full agreement with the democratic process, the implementation of decentralization raised problems, the most important being the lack of necessary financial resources as well as the lack of previous training. These issues lead to a single conclusion and the lack of a clear and common knowledge strategy on decentralization.

There is not yet a national vision initiated by the central authorities in consultation with the local ones, but there are no local development strategies in accordance with the specific issues reported. Insufficient funds are both a cause and a reason for developing appropriate local public policies. In the spirit of this idea, local authorities in cooperation with national ones and including on their support, should consider **a multiannual budget projection**. Precisely for this reason, it becomes imperative to acquaint the members of the local councils with **local management practices and techniques** as well as with the particularities of elaborating the local public policies. Even if the state still provides important resources, they are mostly for special purposes, which does not allow local communities to have freedom in managing funds. In this case, **increasing the income tax rate is a solution in the sense of a wider autonomy** that allows local authorities to spend according to their own needs. At the same time, the responsibility for ensuring sufficient local revenues does not have to lie largely with the central authorities.

Local authorities should be primarily concerned with finding additional revenue solutions locally and only then with raising funds at the central level.

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THE THEORETICAL BASIS FOR THE RESEARCH OF "E-BUSINESS" CONCEPT

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Abstract. *Modern business evolves under the powerful influence of information technologies, which in the most developed organizations are embedded in almost every business process. The functions of marketing, financial management, resource management, communication with suppliers and customers along the entire added value chain are to some extent supported by the Internet and by related software. Due to the development of technologies, new business models and even whole industries have been formed recently, created by the opportunities provided by e-business. Given the significant number of both positive and risk factors which this phenomenon brings to the world economy, it is extremely important to understand the essence of it. Currently, achievements in the study of e-business and its functioning are mostly practical, and research takes place primarily in the business environment. There are no economic theories at the moment which consider its genesis and activity, so the analysis of the theoretical and methodological basis of this concept is of particular priority. The aim of this article is to identify the essence of the e-business concept, its place in the economic system, as well as to determine the extent to which its processes could be integrated into the existing economic theoretical basis.*

Key words: *e-business theory, e-commerce, information and communication technologies, digital economy.*

JEL Classification: *O30, M15, F23.*

1. Recent research and publications

The biggest attention to the issue of e-business is paid in the Western European scientific literature. The research mainly concerns only some of its elements and almost does not include analysis of the theoretical and methodological basis. For example, mostly we are talking about e-commerce (Laudon and Traver, 2017, p. 106), financial technology (Brown, 2020, p.320; Chishti and Barberis, 2016, p.312), cloud technology (Erl, 2013, p.528; Weinman, 2012, p.438). Of particular importance in e-business research are also studies of international organizations and multinational companies (MNCs), such as European Parliament reports on the legal framework for e-commerce, UNCTAD research on information economy, KPMG - on fintech, Deloitte - on artificial intelligence, Ecommerce Europe - on regional e-commerce. Among the representatives of the Commonwealth of Independent States scientific community the issues of e-commerce were discussed by Kargina and Lebedeva (2016, pp.60-63), stages of e-business development – by Epifanov and Atarov (2016, p.106), e-business models – by Trachuk (2015, p.58), Linder and Zichermann (2014, p. 272), e-business management – by Chaffey and Hemphill (2019, p. 680).

Among domestic scientists the phenomenon of e-business was studied by: Balabanov (2001, p.336), Strakharchuk (2010, p. 515) and Zaiceva (2015, p.264), who studied the principles of e-business, Malovichko (2016, p. 394), Melnichuk (2014, p. 93), Tetrychnyy (2021, p. 241), who focused on e-commerce, Vorobyova (2012, p. 20), who researched e-business in public administration

2. Interpretation of the e-business concept.

For a basic understanding of the issue, it is useful to give some examples of interpretation for e-business concept, which are the most well-known in the business environment. It is worth noting that its mechanisms have expanded over time, as has their perception by the scientific and business community, based on progress in the diffusion of innovation and technology. Historical development in this context was once stimulated by various technologies, from the emergence of electronic data interchange, automated

incoming order system, to e-shops, industrial networks and marketplaces, cloud technology and artificial intelligence.

Referring to the origins of the e-business vision existing today, one should turn to the IBM marketing campaign, which advertised a number of computerized procedures for business process automation. As we know, in late 1997, an information technologies (IT) consulting firm published an article in the Wall Street Journal and used this term to describe how corporate systems will change dramatically in the digital age. IBM then understood e-business as "rethinking strategic business processes and approaching the challenges of a new market based on knowledge and characterized by globalization." That is to say, business entities perceived this phenomenon in the context of a new business challenge, to which it is necessary to adjust business processes and relationships with stakeholders. This definition is extremely general, so it is still relevant for today's stage of e-business development.

E-business as a process of adaptation was similarly presented in the interpretations of scientists as follows. In 2000, M. Earl stated that e-business is a mechanism for reengineering and restructuring business processes to meet customer expectations in the new economy. In 2001, El Covey noted that e-business was a rethinking and restructuring of business processes at the production and supply chain levels to take advantage of the Internet and new ways to create value.

Another group of economists specially emphasized on Internet technologies as a key feature of e-business. Schneider (2002, p.342) understood e-business as an entrepreneurial activity carried out using electronic data transmission technologies, such as those used on the Internet and in the World Wide Web. Ribbers (2006, p.455) considered e-business as conducting automated business transactions through electronic communications networks (over the Internet and / or possibly private networks) from the beginning to the end. Fedyshyn (2016, p.12) noted that e-business is a type of economic activity of companies through computer networks in order to make a profit.

Other scientists saw this term as a tool to increase efficiency of individual transactions or processes. For example, Laudon and Trevor (2008, p.13) defined e-business as a concept which is seen primarily as digital support for transactions and processes within the firm, including an information system controlled by the firm. In 2011, these authors also singled out e-commerce as the use of the Internet for business transactions, as commercial transactions between organizations and/or individuals which are supported digitally.

It is also worth mentioning the Cambridge Dictionary as the most well-known result of contemporary research in this field, which distinguishes two ways of e-business interpretation:

1. purchase and sale of goods and services in the Internet, or a certain company which conducts this activity;
2. a business that operates in the Internet.

Similarly, the phenomenon of e-business is described in the work of economists Turban, King, Viehland and Lee (2006, p. 590). It is important to understand that e-business is a phenomenon related to the extended concept of e-commerce, not only the sale and purchase of goods and services, but also customer service, cooperation with business partners and electronic transactions within the organization. This double definition eliminates inaccuracies in economic research about understanding the concepts of e-business and e-commerce, which have often been used interchangeably, causing some sort of conflict. This problem persists to this day, so these concepts should be clearly distinguished. Sometimes the term e-commerce is used in the sense of e-business. A simplified, narrower definition of e-commerce is limited to buying and selling goods

online. Thus, the traditional concept of e-business is quite broad and in most cases may include e-commerce as one of the processes of its implementation. In addition, e-business can include e-marketing, sales promotion, inventory management, search engine optimization, financial management, personnel and more.

Summarizing the ideas of these works, the concept of e-business can be described as the automation and optimization of internal and external business processes in the computer network, in particular innovative IT support of the company in order to increase competitiveness, to create additional value for customers through computer-mediated network and is in some cases a critical competitive strategy.

1. The place of e-business in the economic theory

So, it is very difficult to distinguish the boundaries of e-business in the national economy, as there are a large number of its areas, which are very closely interrelated with other types of economic activity. In this regard, authors of most scientific papers try to identify the basic components of e-business system, the separation of which contributes to a better study of its features and determinants. In the context of identifying the place of e-business in the theoretical system of international economics and international business, it is advisable to focus on its structural relationship with other elements of the economic system.

In this regard, e-business as an activity is a subsystem of business in general, both international and local, and therefore it is logical to assume the relevance of using business theories to study its electronic processes. E-business tools provide a number of benefits to companies, regardless of the number of countries in which it has a branch, there are many examples of different scales of enterprises operating e-business within one state or more. However, the defining feature of e-business is the almost complete absence of borders between countries in the global information network, and therefore e-business processes are primarily a product and part of the system of international rather than local business.

Well known is the fact that the basic concept of the very nature of business has been studied by the classics of economics, and since then basic characteristics of this phenomenon have not changed significantly. And of course, the most outstanding ideas in the history of economic doctrines presented by Smith, Ricardo, Marx, Marshall and Keynes remain relevant for explaining modern economic processes in the form of neoclassical economic theory, neo-institutionalism, neo-marxism (Lavrov, 2007, p. 48). E-business as a subsystem of international business, should be studied by synthesis of existing theories in this area, as its field of influence and opportunities for its implementation covers almost all functions of the company and changes the specifics of market regulation at both national and international levels.

Just as the formation of the international business theory took place on the basis of separate currents of general economics - firm growth theory, innovation theory, competitiveness theory, international capital movement theory, international trade, strategic management, network economy (Rogach, 2018, p. 25), so the theoretical ideas about e-business have developed too mostly due to individual theories. Among them, the concept of digital economy, the theory of new growth, the theory of transaction costs, the theory of network externalities and agency costs, institutional change model, the theory of technology diffusion, technological and organizational environment, the system theory, strategic networks and others. Therefore, the postulates application of one school of economic thought to the e-business study is possible, but insufficient for research completeness.

2. E-business concept from different schools of economic thought point of view

In search of a relevant basis for the development of e-business theory, it is worth noting, that neoclassical school has slightly different focus, it is directed mostly on the macro level, on trade and investment relations between countries, and not on the activities of international companies. However, if we consider the environment of e-business companies and their impact on the market as a system, the neoclassical school provides a certain foundation for this. As we know, the high level of information openness and flexibility of decision-making creates intense competition and imposes new requirements for business development. With emerging e-business, the market is increasingly approaching to the model of perfect competition with new standards of competitiveness, cost structure and profits of manufacturers. In such circumstances, the neoclassical desire to limit market regulation has become the only possible scenario, as e-business system has gone beyond traditional legislation. Barriers between national markets are significantly reduced, the legal framework for Internet business regulation is almost non-existent, and market relations are largely determined by supply and demand. The peculiarity of e-business is that the role of the product is played by information and electronic communications, which greatly increase the economic effect of transactions. In such conditions, economic and mathematical modeling, which is the core of the neoclassical school methodology, becomes crucial, because there is a need to control and analyze huge amount of information that has become available to participants in the business environment. But neoclassical theory can be applied only in part, given that a number of basic assumptions do not correspond to the reality of the electronic market, such as given conditions of activity (information perfection/symmetry, complete rationality of behavior, price stability), ignorance of the internal organization's features (organizational structure, internal management), lack of alternatives in the choice of solutions.

Neo-institutionalism however is based on the fact that the firm is a complex hierarchical structure operating in market uncertainty, and the main task of the analysis is to explain the firm behavior in the system of expensive and incomplete information. He also suggests that any economic action is inextricably linked with non-productive costs, so in a global economy competition is shifting to the non-productive sphere, which we see with the development of e-business mechanisms. As a result, the market potential to reduce transaction costs significantly exceeds the potential to reduce production costs and the information factor comes first. For example, Kenneth Arrow (1999, p. 203) points out that information is an economic category, that is, a commodity which has value and that the economic role of information is to reduce uncertainty and prevent tax losses.

Despite the conformity of some theoretical concepts to the conditions of e-business existence, only few have a direct mention of it. Mostly the notion of information, technology, innovation remains the main topic. For example, Paul Romer's (1996) theory of new growth, which is an important contribution to the development of a modern economic school, focuses on technologies as a basis for economic growth and their dependence on research and development (R&D) investment. This vision raises the question about the correlation of e-business level in a given country on its investment in R&D, which requires further research to create an effective government strategy in order to stimulate digital growth.

E-business as a set of methods and approaches used to benefit from the introduction of innovative information technologies, including the Internet, should be considered in more detail in terms of transaction cost theory (Williamson, 1993; Coase, 1937). The theory explains existence of the firm by the desire to avoid the cost of market operations, and argues that the firm will expand until the marginal cost of the transaction within the

firm is equal to the cost of the same transaction in the open market. Given the impressive speed of technology development, the trend to coordinate activities electronically will continue. In this case, it is advisable to define e-business as a management structure built through a sequence of contractual relations between stakeholders and aimed at continuously creating added value and, consequently, benefits for these stakeholders. From the other side, given that all transaction costs are reduced, both within the firm and in the open market, cooperation and outsourcing contracts have become more available and therefore widespread.

According to the approach of transaction cost theory, e-business technologies on the one hand reduce the cost of organizing intra-firm interaction, which allows to offer a more competitive product or service, and on the other hand, make it easier to order goods and services (or sell them) from outside the market. Both MNCs and small and medium enterprises (SMEs) are stimulated as barriers to market entry and to key stakeholders become lower. This phenomenon will have a particularly noticeable impact on electronic market platforms, which, in contrast to individual interactions, can significantly simplify the choice and reduce the asymmetry of information for its participants. As a result of saving or eliminating costs, the role of intermediaries between the supplier and the customer is totally transformed. Given the existence of large online platforms with transparent prices and the ability to compare at least the declared characteristics of goods and services, the number of wholesalers and retailers required for the functioning of the market is significantly reduced, their market acquires the characteristics of an oligopoly. Today, on average, two or three online platforms cover most of the services in a particular industry in one country or even region.

From the internalization school of economic thought point of view, as the development of Coase's idea, the phenomenon of e-business can be considered, among other things, as result of modification of organizational and managerial forms of large companies, including MNCs, as a tool and in the same time a consequence of global expansion. Thus, the concept of the global factory by Buckley (2009, p. 131), studying the reasons for the networks formation, argues this process is caused by resolving of the contradiction between the limited capabilities of traditional MNCs organizational structures and the pursuit for rapid response to changing market conditions. Buckley also singles out the need to develop the appropriate economic policy of countries, for which is important to study the determinants of the MNC networks location, as an example, mentioning the particular qualities of the cultural environment. This approach can be successfully complemented by the use of Hofstede's concept of cultural dimensions, which provides a more detailed consideration of cultures. In the case of e-business, for example, the level of individualism and uncertainty avoidance can have a significant impact.

E-business as a component of the digital economy falls into the line with its principles and features, so the theoretical foundations of its research comprise also the works of Castells (2007, p. 304), Kelly (1998, p. 2), Shapiro (1999, p. 3) on the economy based on information and digital technology. In many respects, they are close to Bartlett's and Goshal's network theory (1989, p. 328), which focuses on the effects of network interdependencies and synergies and their impact on the organizational structure of internal relations.

The network externalities theory can be applied to the e-business analysis, because this concept allows to identify certain incentives for the use of its technologies, and therefore a deeper understanding of the nature of e-business growth and its advantages over traditional. Considering the phenomenon of e-business through the prism of the network effects idea, we can identify all of network patterns, such as market size effect, crisis of coordination, the imitation effect, of market diversity, the reinforcement effect

(Bonaccorsi and Rossi, 2002, p. 12). As a result of these, the value of technologies such as e-commerce at any given time is dependent on the number of accepted e-sales and e-purchases. Consumers of goods base their decision to buy on the expected size of the network, and firms take into account not only the current but also the future number of its users, the behavior of other agents in their competitive system.

A promising course for the development of the theoretical basis of e-business and of the value it creates is a resource based view to the study of economics (Barney, 1991, p. 99). It is used to explain how firms create value from information technology assets and how stability depends on available information technology skills rather than on those technologies themselves. Such information technologies bring better results when collaborating with other IT resources, achieving synergies. The theory considers them as an opportunity to create sustainable competitive advantages.

Although many scientists claim that e-business is transforming the global economy, it has a significant impact on only a few countries, particularly the United States of America and the People's Republic of China. Low rates of development in other regions are not yet sufficiently justified by economics. In addition, some emerging economies, such as the United Arab Emirates, Singapore, and Bahrain, have performed much better than others in digitalization of their businesses and economy as a whole. The resource approach can find a causal link between contextual factors, e-business use, and enterprise performance. Especially widely adopted at present are approaches to combine the resource based view with theory of technological and organizational environment, which performs the subject analysis on the base of technological, organizational and environmental factors.

3. Conclusion.

The main results of the study can be combined into the following three theses.

1. Currently the economic literature has a great variety of approaches to the study of the e-business concept, each focuses on its individual properties. E-business can be seen as a set of business processes, as a mechanism for integrating intra-firm functions, as well as links with stakeholders, as a global network that provides access to customers, suppliers, competitors and payment services, as a system of resources and technologies. All these approaches exist in the modern economic system and highlight one of the aspects of the studied phenomenon. These concepts and theories, as well as their diversity, argue that e-business, like information and communication technologies in general, has many uses and can take different forms.

2. Analyzing the evolution of approaches to the identification of this concept, we can see primarily a change in the scale of influence - from the usual purchase and sale on the Internet, to the presence of an electronic component in all business processes. And if the first attempts to define e-business saw it only as a way to make a profit through a website, today, given the mentioned aspects of its operation, it is appropriate to formulate this concept as follows: as support and streamlining of business activities using the tools of information and communication technologies that increases the efficiency of the company as a whole and the synergistic effect by integrating business processes into a single digital economy.

3. From the theoretical point of view, it is most appropriate to consider e-business from the standpoint of neo-institutional school of economic thought - network theory, internalization theory, transaction cost theory, new growth theory, because it emphasizes on the information factor and takes into account the relevant prerequisites of the firm in today's business environment. In addition, the foundation of e-business theory could be formed based on the concept of digital economy, the theory of innovation diffusion, theory of technological and organizational environment. Significant potential for

future research lies within the resource based view, in particular for the analysis of determinants of e-business development in different countries or regions.

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CONCEIVING A COMPOSITE EVALUATION FOR OFFICIAL DEVELOPMENT ASSISTANCE IN SUPPORTING SUSTAINABLE DEVELOPMENT GOALS AND ECONOMIC GROWTH

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Abstract: After an extremely difficult year, with colossal losses of human lives, discussions, debates and articles about sustainable development seem frivolous. However, the quality of the environment and the social situation of the world's population would probably have made a different impact on the number of illnesses and deaths if it had been treated more responsibly in the past. Therefore, this article discusses the capacity of financing for sustainable development in key areas of the world, in the period 2000-2019, through an instrument - Official Development Assistance. The composite analysis carried out, through three derived indicators, materialized in elasticities, really reflects the mobilizing capacity of official development assistance on the economy, being needed even more sustained efforts in the future for achieving the 2030 Agenda for sustainable development.

Keywords: Official Development Assistance (ODA), economic development, world level, foreign direct investment.

JEL Classification: F35, F34, C43.

1. Introduction

In the period before the COVID-19 crisis, there were many moments in which the aspects of sustainable development emerged as urgent and recognised as global problems of humanity. In this context, there are still discussions about how to adjust the concessional aid and especially the Official Development Assistance (ODA) tool. According to UNCTAD, ODA includes grants, concessional loans, soft loans (grants being at least 25 per cent of the total) and technical assistance support. Thus, despite shortcomings in ODA calculation (e.g. Severino and Ray, 2009) and data transparency, ODA can play an important role for supporting countries in increasing capacities of the structure of institutions and of economies, for increasing innovation process, for a proper use of technology and for preventing future crisis of medical, social and ecological nature.

In the allocation of ODA, an important aspect is played by the gross national income or even the evolution of the gross domestic product (see Figure no.1).

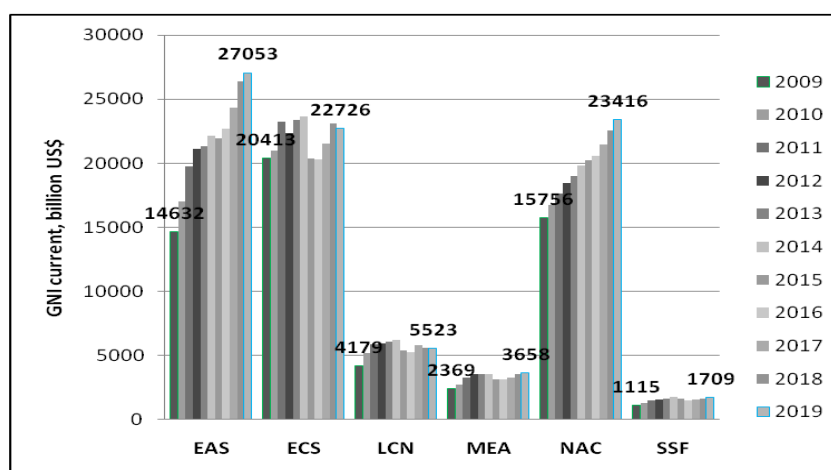


Figure no. 1. Gross National Income in the most important regions of the world in the period 2009-2019

Source: Word Bank data; author's processing. Notations: EAS - East Asia & Pacific; ECS - Europe & Central Asia; LCN - Latin America & Caribbean; MEA - Middle East & North Africa; NAC - North America; SSF - Sub-Saharan Africa.

Using World Bank data, the available information is related to gross national income (GNI). According to World Bank data, world GNI has grown from almost 33685 billion US dollars in 2000 to no less than 60145 billion dollars in 2009 and to 87757 billion dollars in 2019. Data on groups of countries in various regions of the world during the period 2009-2019 shows the areas in which the evolution of GNI has dragged on and is located at almost irrelevant values on a global scale such as: Latin America & Caribbean (LCN); Middle East & North Africa (MEA) and especially Sub-Saharan Africa (SSF). As the Figure no.1 shows, the most dynamic areas for economic growth are East Asia & Pacific (EAS), North America (NAC) and Europe & Central Asia (ECS). Thus, they are and they should also be the best suppliers of ODA to the other less developed areas of the world.

Although in the analysis, in the graphical representation, we prefer for simplification the reporting of the indicators to GNI, still the reporting of the analyzed indicators to GNI can be misleading. For example, a funding influx (ODA, remittances and investments) at a high GNI reduces the share, while for some areas, the same funding may seem exorbitant at an extremely low GNI.

Therefore, taking into account these aspects, the article analyzes the ODA's ability to stimulate GNI, foreign direct investment and net exports, using elasticities that are then combined in a composite indicator. The results do reveal the mobilizing capacity of ODA at least in certain parts of the world.

2. Description of the problem

Economic performance, the level and pace of GDP growth and especially GDP per capita or GNI per capita are the basis for the allocation of funds through ODA, but this is not so close to improve reality. Thus, it is necessary to review the current ODA graduation criteria of OECD in order to include other multidimensional measures of well-being and sustainability beyond GNI (Vignolo, 2016). The existence of economic growth often does not mean the elimination of poverty poles, poor health or healthcare, underdevelopment, etc.

Thus, many countries with high, medium and upper-income still have persistent structural issues and vulnerabilities in translating the general level of development in real economic performance felt by citizens. Increasing fiscal space, improving trade, facilitating free movement, improving physical infrastructure, diversifying production, supporting immigrants, guaranteeing equal opportunities, reducing vulnerabilities to climate change, reducing the vulnerability of social groups constantly at risk of discrimination, and increasing decision-making efficiency, crisis prevention, the design of effective mechanisms for automatic stabilization and social protection are elements that still need attention and funding even in the richest and most progressive states of the world.

That is why economic growth often comes with many harmful aspects for both society and the environment. Often, private or public economic performance is unable to be future-oriented, to what sustainable development should mean: - good and responsible institutions, - ensuring an element of stabilization/balancing between the public and private system regarding the labor market, - jobs and nomenclature of jobs oriented towards the future, with modern attributions related to technology and environment, - economic and social resilience in front of the crisis etc.

Therefore, although conceived in the early 1970s by the Development Assistance Committee (DAC, an OECD body) as a government funding mechanism for development, ODA now has serious syncope in “leaving no one behind” in terms of funding for Sustainable Development Goals (SDGs)(e.g. UNCDP, 2018; Djurfeldt, Jirström & Deijl, 2017; Clay, 2018).

Thus, in Figure 2, we can see that although for the African region and Middle East (SSF and MEA) the percentage of ODA allocation is substantially above the average of other parts of the world and above the required percentage of at least 0.70% of GNI (for MEA, constantly only from 2016 until 2019), its tendency is to reduce. Also, the evolution of foreign direct investment is rather similar for the same region of the world analysed for ODA. Thus, we can see foreign direct investments (FDI, as a percentage of GNI) with a dramatic reduction from 3.29 % of GNI to 1.86 % of GNI, so a collapse of 1.76 times for the SSF region, and of 2.24 times for the MEA region for the period 2009-2019.

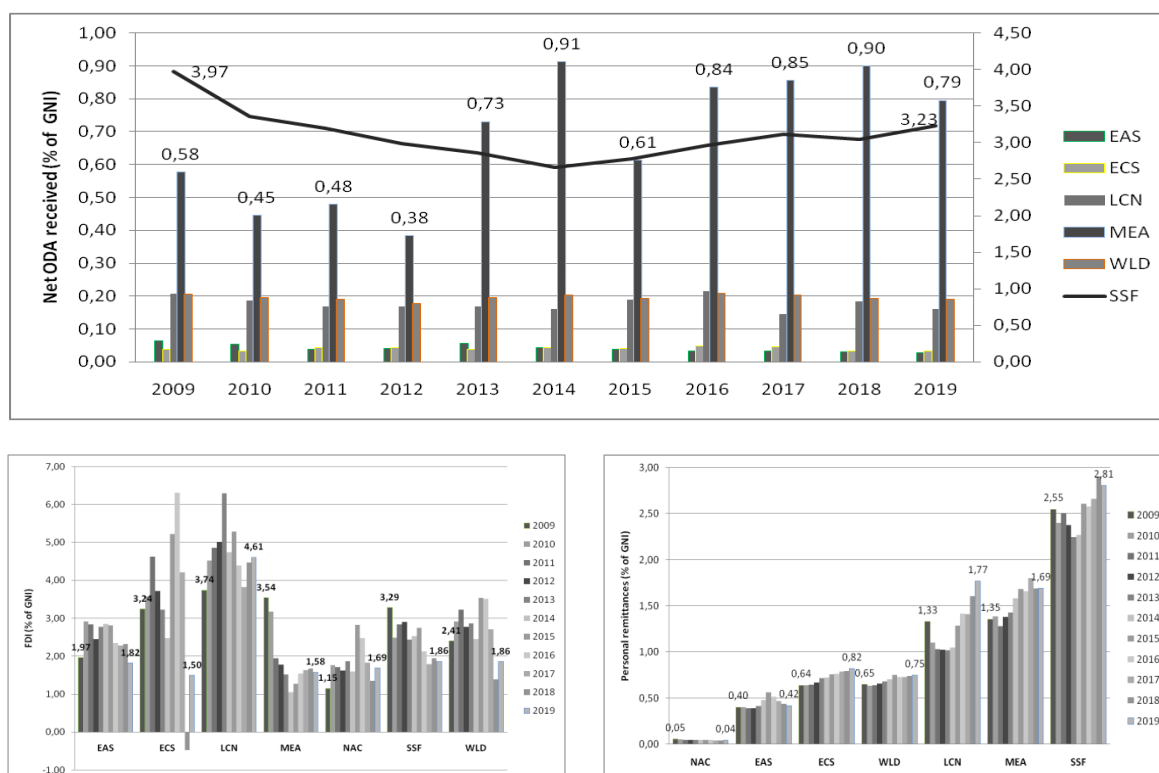


Figure no. 2. Net ODA, FDI and Personal Remittances as % of GNI in the most important regions of the world in the period 2009-2019

Source: Word Bank data; author's processing. Notations: EAS - East Asia & Pacific; ECS - Europe & Central Asia; LCN - Latin America & Caribbean; MEA - Middle East & North Africa; NAC - North America; SSF - Sub-Saharan Africa, WLD - World.

Figure 2, by the situation of personal remittances as a percentage of GNI, shows another limited capacity of all forms of financing, domestic and international, to finance world economies, by the fact that personal remittances are more substantial and usually increase where public funding and private - banking and business - are set aside. Thus, following the evolution of remittances, we can conclude that the three areas that require the most consistent assistance are: Latin America and Caribbean, the Middle East, and especially Africa.

3. Literature review

With a relatively young history, under a century, the concept of aid for development is dating since the end of World War II, on the late 1940s, when the world financial system did not have an adequate capital base to finance the world's poorest or neediest countries. This aspect marked, masked or openly, a power struggle between the Soviet Union and the United States, contributing to the export of their models but also to the democratization of

the world by assisting developing countries in order to expand their regional sphere of political, economic and cultural influences. Therefore, financing for development and especially through ODA played a role until the end of the 1990s, when there was a decrease in these funds and a growing contribution of private capital, exactly 12 times higher than those in the form of ODA and OOF (OECD, 1998; Takahashi, 2002).

The decrease in funds over time ODA is investigated in numerous studies. For example, Takahashi (2002) states that the causes of these unfavorable trends in the evolution of ODA are due to the unfavorable evolution of the Gini coefficient in donor countries (e.g. Germany and Japan in the early 2000s), the intentions of political leaders, fiscal realities, strategic considerations and the evolution of the balance of payments. At the same time, although it states that, as economic performance improves, new donors appear on the international stage of ODA financing, the long-term performance of funds for development is also linked to a review of these instruments.

Substantial analysis of ODA funding in Africa is performed by Olaniyan (2002). He states that the unfavorable evolution of ODA financing for African countries is due to unfavorable circumstances of the world economy, to the emergence of new countries that need ODA financing, to the need to reduce budget deficits in donor countries, to corruption and political instability in some receivers countries from Africa, but also to the poor performance in the use of these funds on this continent.

In a relatively recent document of UNCTAD (2019), it is mentioned also the decline in ODA and the fact that ODA and blended finance (e.g. technical assistance, structured finance, grants for investments, loan guarantees and equity investment) are insufficient to provide the finance needed to achieve the targets of Sustainable Development Goals (SDGs), ODA remaining at less than half of the DAC commitment for ODA (e.g. 0.7 % of their annual GNI in developing countries and 0.15-0.20 % of their GNI in the least developed countries). UNCTAD also states that the ODA structure has changed in favor of concessional loans and less of grants, for example, concessional loans increasing in 2017 to 23% of ODA. This can be explained by the fact that, in general, the money invested in funds like ODA, in order to help other countries, has a reduced multiplier effect and an extended period of multiplication and boosting those economies.

In addition to studies that address ODA trends, numerous studies address the effectiveness of ODA and other external aid funds in their ability to sustain growth. Some mentioning the positive effects of foreign aid (e.g. Burnside and Dollar, 2004; Ali and Isse, 2005, Gang and Khan, 1990, Nyoni, 1997 etc.), others rather the negative one (Friedman, 1958; Boone, 1995; Whitaker, 2006; Alabi, 2014 etc.).

4. Methodology and data source

In order to realize if the ODA has a stimulating capacity, a composite index is elaborated respecting the steps: - selection of the indicators, - normalization (by calculating the elasticities) and calculating the final composite indicator. For the selection of indicators, I do not propose to perform a consistency analysis by eliminating factors (so no Cronbach coefficient alpha is performed), the study not focusing on a purely statistical analysis but a logical one. This approach also takes into account the fact that the data source is the one provided by the World Bank whose abundance of information is relatively scarce (we cannot select too many indicators for comparisons, and therefore we do not allow to eliminate some of them!), especially since large geographical areas are targeted: EAS - East Asia & Pacific; ECS - Europe & Central Asia; LCN - Latin America & Caribbean; MEA - Middle East & North Africa; NAC - North America; SSF - Sub-Saharan Africa, WLD - World. The conjugate graph treats the period 2009-2019, while the

coefficients of elasticity and implicitly the composite indicator refer to a much longer period: 2000/2001-2019.

To see if net ODA has mobilizing capacity on the world's economies, it has been selected three indicators: the evolution of gross national income, the evolution of foreign direct investment, and the evolution of exports, in current US dollars. We put the condition that for the elasticity between zero and 1 in the module to note with zero, and if it is 1 in the module or it is over 1 in the module to note by 1. The condition emphasizes whether net ODA has mobilizing capacity for the pursued elements. Then it is calculated how many times the criterion imposed on the average elasticity coefficient for the period 2001-2019 is met, including the degree of fulfillment in percentages. The score is between zero and three as follows: - between [0; 4] - unsatisfactory marked with 0, between [5; 9] - satisfactory marked with 1, between [10; 14] - well rated with 2, over 15 - very good, rated with 3.

The composite indicator used considers equal the weights of the three criteria, practically signifying a summation of the notations of the coefficients of the three types of elasticities. The rating of the composite indicator is as follows: interval [0;3] - a low capacity of ODA to sustain the economy, interval [4;6] - an average capacity of net ODA to sustain the economy, interval [7;9] - a high capacity of net ODA to stimulate the economy by boosting gross national income(GNI), foreign direct investment (FDI) and net exports.

5. Results

Calculating the coefficient of elasticity of the gross national income to the evolution of Official Development Assistance we notice that there is a great variability of the transition from elasticity to inelasticity of the evolutions for all the analyzed areas but we notice mainly that indeed the economic growth of Latin America and Caribbean (LCN) and Sub-Saharan Africa (SSF) responds better to the evolution of net ODA (see Table no.1).

Table no. 1. The coefficient of GNI elasticity in relation to net ODA

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
EAS	0.49	-1.29	-3.51	-8.50	0.17	-0.35	1.16	12.17	0.22	-25.66	-0.76	0.40	0.03	-0.18	0.06	-0.36	0.78	-4.57	-0.25
ECS	-0.58	0.22	-0.79	3.67	2.31	0.32	-4.07	0.42	-1.42	-0.37	0.25	0.86	-0.44	0.09	0.79	-0.02	13.33	-0.34	0.68
LCN	-0.12	0.85	0.10	1.08	-6.82	1.90	-3.79	0.48	1.60	2.03	4.33	1.15	1.04	-0.65	-8.11	-0.25	-0.46	-0.17	0.11
MEA	0.40	-0.01	0.17	0.61	0.13	-0.46	3.98	0.71	0.26	-1.58	0.68	-0.74	-0.01	0.03	0.29	0.01	0.61	0.60	-0.26
SSF	-0.48	0.27	0.82	3.77	0.77	0.80	-1.23	1.23	-0.35	150.80	1.81	-4.97	3.26	-1.78	2.07	7.12	0.51	2.36	0.32
WLD	-0.12	0.19	0.78	1.05	0.23	-6.08	11.08	0.55	29.18	3.06	1.32	-0.61	0.20	0.46	0.59	0.16	1.66	7.08	1.79

Source: Word Bank data; author's calculation. Notations: EAS - East Asia & Pacific; ECS - Europe & Central Asia; LCN - Latin America & Caribbean; MEA - Middle East & North Africa; NAC - North America; SSF - Sub-Saharan Africa, WLD - World.

Although considered as alternatives, as sources of financing for sustainable development or for the economy in general, the ODA-FDI relationship is not only a compensatory relationship, but, often, each of them comes to stimulate and potentiate the other. Thus, if we analyze the elasticity of FDI to the evolution of net ODA (see Table no.2) we notice that ODA has a higher capacity to boost investments than the increase of gross national income in general. Also, we can notice that the area that feels best this

impact is Europe and Central Asia (ECS). The areas LCN, EAS and SSF also feel the full impetus given by ODA to investments, but the area with a more limited response of investments to ODA is MEA.

Table no. 2. The coefficient of FDI elasticity in relation to net ODA

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
EAS	1.94	9.46	-4.22	-39.33	-0.13	-2.84	3.62	-1.73	-2.06	-113.21	-0.62	-0.43	0.40	-0.33	0.21	1.43	0.43	-5.45	1.80
ECS	30.15	-0.22	0.22	2.95	45.70	1.02	-11.71	-1.54	-5.84	-1.87	1.00	5.25	0.97	-1.44	-4.63	1.47	-64.42	5.20	178.33
LCN	-0.99	1.41	-0.54	5.42	6.17	4.42	-14.07	0.39	7.66	4.23	6.95	4.80	10.91	7.14	-2.43	-1.84	0.13	0.60	-0.10
MEA	-3.79	2.66	1.40	2.18	0.76	-1.25	3.32	-0.29	0.60	-0.43	-1.03	-0.01	-0.17	-1.18	-0.18	0.61	1.54	0.77	0.33
SSF	13.20	-0.89	0.88	-1.32	2.30	-0.64	-6.34	2.93	-0.55	-83.68	4.15	-6.95	-5.31	-3.38	-0.04	27.96	-0.88	7.28	-0.12
WLD	-9.67	-0.80	-0.16	3.06	1.51	-28.50	38.51	-1.24	241.59	10.40	2.69	2.80	0.46	-1.73	-4.05	0.06	-4.59	-52.97	39.25

Source: Word Bank data; author's calculation. Notations: EAS - East Asia & Pacific; ECS - Europe & Central Asia; LCN - Latin America & Caribbean; MEA - Middle East & North Africa; NAC - North America; SSF - Sub-Saharan Africa, WLD - World.

Regarding the third elasticity considered, of the net exports taking into account the evolution of the net ODA, we can see that the exports react even better than the investments to the evolution of the net ODA for the most important parts of the world. Thus, the areas that really prevail in terms of this elasticity are LCN and SSF and less EAS. Note that MEA data is missing. Overall, on the whole period 2001-2019, worldwide (WLD), the elasticity of net exports to the change in net ODA is similar to that of foreign direct investment to the change in net ODA as number of compliance with the condition of having a more then 1 elasticity, in module.

Table no. 3. The coefficient of elasticity of Net Exports in relation to net ODA

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
EAS	1.96	-18.37	-10.18	-19.98	0.26	-2.42	3.50	-6.81	-1.31	-21.93	1.73	-0.44	-0.39	-2.25	-4.84	0.34	-0.38	22.04	-4.65
ECS	-39.37	0.70	-0.92	12.08	0.66	-0.16	8.53	-2.49	32.76	-2.46	0.47	-7.27	-0.97	0.45	0.37	-0.56	20.74	-0.90	4.72
LCN	0.80	3.58	-2.25	-2.42	11.16	-7.54	-322.29	2.85	3.79	7.84	2.39	21.29	4.85	-2.36	-2.72	-2.75	-0.08	1.43	1.35
SSF	133.89	0.05	0.28	-8.63	-6.15	-7.37	-84.28	5.45	6.27	-223.72	3.02	-23.14	8.13	-13.36	-6.43	30.76	-1.11	8.67	3.64
WLD	32.43	-3.70	-39.13	17.13	0.11	-38.33	32.32	-1.56	-245.77	5.00	-0.44	-3.22	0.37	0.32	2.63	1.65	5.84	-22.01	15.97

Source: Word Bank data; author's calculation. Notations: EAS - East Asia & Pacific; ECS - Europe & Central Asia; LCN - Latin America & Caribbean; NAC - North America; SSF - Sub-Saharan Africa, WLD - World.

Table no. 4 highlights the fulfillment of the criterion regarding the superunit elasticity in the module for the three analyzed elasticities (GNI, FDI and net export in report of net ODA) but also the composite indicator regarding the net ODA efficiency expressed in percentages and its notation. We note that the composite index reveals that SSF and LCN are on an equal footing, followed by the global media (WLD), EAS and ECS. So the general conclusion may be that net ODA has the capacity to mobilize resources for sustainable development and to sustain economic growth in the most

disadvantaged areas of the planet but that efforts must be made also for all geographical areas that seem at first glance less affected by syncope and developmental delays, but they still lag behind.

Table no. 4. Compliance with the criteria for elasticities and their grading as well as the final composite indicator and its grading

	E _{GNINODA}		E _{FDINODA}		E _{NEXPNOA}		I _{compefNODA}	
	Resp. crit. average (2001-2019)	Not.(0-3)	Resp. crit. average (2001-2019)	Not.(0-3)	Resp. crit. average (2001-2019)	Not.(0-3)	Resp.crit. (%)	Not.(0-9)
EAS	7	1	12	2	14	2	57.9	5
ECS	5	1	15	3	9	1	50.9	5
LCN	10	2	13	2	17	3	70.2	7
MEA	2	0	9	1			19.3	1
SSF	11	2	12	2	17	3	70.2	7
WLD	9	1	15	3	15	3	68.4	7

Source: Word Bank data; author's calculation. Notations: EAS - East Asia & Pacific; ECS - Europe & Central Asia; LCN - Latin America & Caribbean; MEA - Middle East & North Africa; NAC - North America; SSF - Sub-Saharan Africa, WLD – World; E_{GNINODA} - GNI elasticity in relation to net ODA change, E_{FDINODA} - FDI elasticity in relation to net ODA change, E_{NEXPNOA} - net export elasticity in relation to net ODA change, I_{compefNODA} - composite index on ODA efficiency in relation to selected indicators.

Because there is a lack of data on MEA, we cannot make too many statements, but we can suspect that, if it were that information, the result could be in the vicinity of the situation of sub-Saharan Africa. For the time being, according to the exposed methodology, MEA is on the last position regarding the ODA capacity to finance this area. Another aspect is that covering a part of the Arab and Muslim world, the methods of financing development in the MEA area can differ substantially from ODA as well as the fact that it could actually be more effective than ODA based on other criteria of financing than the classic ones (e.g. the Muslim financing model which assumes the absence of interest). At the same time, besides ODA, other funds may be less statistically identifiable and sometimes less significant such as other official flows (OOF) (including IBRD loans and IMF loans, export insurance and export credits etc.) and private finance. However, they can be good explanations for the flows of this part of the world, and not only.

6. Conclusions

In order to truly meet the goals of the 2030 Agenda for Sustainable Development, a review of the ODA and other financial support instruments of countries with more limited capacity to mobilize and allocate resources effectively needs to be considered.

Although the literature is divided between the positive and negative effects of ODA in the economy, this study, which analyzes the ability to influence economies in some parts of the world through ODA in the period 2000-2019, notes that through a composite indicator, the ODA influences on the world's economies should be taken into account. It should be noted that the composite indicator of ODA efficiency reflects the result of the elasticities of gross national income, foreign direct investment and net exports in relation to net ODA flows.

Subsequent studies can contribute, by selecting a larger number of significant indicators or other indicators, to refining the methodology and implicitly the results of the composite indicator.

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FAITHFUL IMAGE AND ACCOUNTING REGULARITY IN CONDITIONS OF APPLICATION OF INTERNATIONAL FINANCIAL REPORTING STANDARDS. CHALLENGES FOR ACCOUNTING PRACTITIONERS AND AUTHORITIES

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Abstract: *The objective of the annual financial statements is to provide a true and fair view of the financial position, financial performance and other information relating to the business of the entities or groups of entities, in accordance with applicable accounting regulations. The transition to the application of IFRS as an accounting basis by entities whose securities are traded on a regulated market has been a major challenge both for the professionals involved in the preparation and audit of the annual financial statements and for the authorities. The application of IFRS by some companies that carry out monopoly activities, which manage assets belonging to state authorities, requires professional judgment and appropriate measures to identify any risks that may arise from non-correlation of the provisions of legislation and IFRS. Given the existence of excessive and sometimes outdated legislation, the presentation of a true image in relation to IFRS and compliance with the applicable legal framework is a challenge for practitioners in companies, for statutory auditors but also for authorities that need to assess how to manage state capital and tax reported profits. The transition to the application of IFRS as an accounting basis in Romania by entities whose securities are traded on a regulated market was made without a prior analysis of the comparability between the provisions contained in legislation (including tax) and the provisions of International Financial Reporting Standards. There are a variety of economic and financial operations that are carried out by entities and various forms of their legal organization, so that they cannot be fully identified and legally regulated. The analysis of the information in the annual financial statements published by the companies can contribute to the understanding of the information by various users, including the representatives of the state authorities.*

Keywords: *accurate picture, international financial reporting standards, accounting standards, annual financial statements.*

JEL classification: *M 41.*

1. The objective of general purpose financial statements

Accounting law nr. 82/1991 republished, with subsequent amendments and additions, entities are required to conduct accounting according to rules issued for this purpose and to publish annual financial situations, which are considered general purpose statements.

With the transition to a market economy has begun a process of reform in the area of accounting that had as its objective the improvement of the information system intended for other users than State institutions.

The admission of Romania as a member country of the EU and of carrying out a process of aligning national accounting rules to the Community provisions relating to the format of the annual financial statements, the valuation methods used, and the presentation and publication of the annual financial statements prepared by entities.

The information presented in the annual financial statements have become increasingly more complex, he switched from numeric presentation of information to the joint submission, encompassing both the numeric and narrative explanations.

The transition to accounting "in accordance" with the requirements of the accounting directives (Fourth Directive of the European Economic Communities Directive 78/660/EEC of 25 July 1978) involved taking over the accounting rules of the national accounting community creating a legal framework for the production of comparable information in annual financial statements. One of the main requirements relating to information contained in the annual financial statements relates to the comparability of the information submitted by an entity in all periods presented in the annual financial statements, as well as to the comparability of information presented by different entities.

The information presented in the annual financial statements are intended for individual users that you analyse and take decisions on the basis of their interests. Among the recipients of information shall be stated:

- existing or potential investors who are interested in the value of the net assets shown in the annual accounts, the rate of return on investment, or the potential for increasing the market value of the equity instruments;

- lenders that may be financial and banking institutions and other donors that analyzes information from the perspective of potential to recover loans and interest due;

- employees who are interested in the financial position of the entity, pursuing what are rights protected and the prospects for development or restructuring of its activity;

- reporting entity's leadership is interested in the information presented in the annual financial statements, but it has available and current information, not available to the general public for making decisions.

- State authorities represented by regulatory bodies (for certain fields as energy, services);

- other institutions of the State, such as the Ministry of public finance and the National Bank of Romania.

As notes, there are several beneficiaries of the information in the annual accounts, their needs being focused on information from certain components of annual financial statements.

To meet these needs, entities must approve the accounting policies and procedures enabling the recording of events and transactions during the financial year and presenting work in synthetic annual financial statements.

2. True image in accounting

True image in accounting has legal meanings, being laid down in the accounting Law nr. 82/1991 republished, with subsequent amendments and additions.

In the context of accounting law, the faithful must be confirmed, assumed by the Admins, instructing or other persons who are subject to the management of the entity in question.

Thus in art. 30 of accounting law States that: "the annual financial statements shall be accompanied by a written statement of the persons referred to in article 10 alin. (1) assumes responsibility for drawing up the annual financial statements and confirmed that:

- (a) accounting policies) used in the preparation of the annual financial statements in accordance with accounting regulations applicable;

- b) annual financial statements gives a true and fair view of the financial position, financial performance and other information on the work carried out;

- c) legal person performs in terms of continuity. "

Both European directives in the field of International Accounting and financial reporting Standards include criteria for the recognition, evaluation, derecognition of the balance sheet (assets, liabilities and equity) and the items in the profit and loss account, respectively, revenue and expenditure.

Requirements for accurate image in annual financial statements included in both the accounting standards in accordance with European directives and international financial reporting Standards, as follows:

- Accounting regulations approved by order of the Minister of public finance nr. 1802/2014, as amended and supplemented to provide for section 24 that: "annual accounts must give a true and fair view of the assets, debts, financial position and profit or loss of the entity.

- IAS 1 "Presentation of financial statements" referred to in paragraph 15 that: "the financial statements must present the financial position of the loyal, financial performance and cash flows of an entity. Fair presentation provides accurate representation of the effects of transactions, other events and conditions in accordance with the definitions and recognition criteria for assets, liabilities, income and expenses set out in Conceptual framework for financial reporting. It is assumed that the application of IFRS, with supplementary information presented when required, results in financial statements that achieve a fair presentation. "

3. True image and compliance with accounting rules

And in case of application of IFRS corresponds to the image should be confirmed, is not implied or assumed. In this regard, in paragraph 16 of IAS 1 provides that: "an entity whose financial statements comply with IFRS must submit a statement in explicit and unreserved for this compliance. "Compliance with IFRS annual financial statements is carried out if they are satisfied the requirements of all applicable IFRS sites.

If in the case of accounting regulations compliant with European directives (order of the Minister of public finance nr.1802/2014) there is only true image requirement without having laid down the conditions under which it is performed, IAS 1 "Presentation of financial statements" specifies that a fair review requires that an entity meets the following conditions:

- to respect and implement the provisions of IFRS applicable sites, and in the absence of an IFRS that applies to a specific item (in rare cases) to proceed to the selection of accounting policies according to the hierarchy provided for in IAS 8 "Accounting policies, changes in accounting estimates and errors";

- submit the notes to the annual financial statements information narrative showing the accounting policies used in the preparation of the annual financial statements and other relevant information. The information presented must be reliable, understandable and comparable;

- to submit additional information to enable users of information understand certain transactions when certain IFRS is not sufficient.

So accounting rules in accordance with European directives and in accordance with the IFRS (order of the Minister of public finance nr. 2844/2016) provide for the way forward where an entity concludes that the application of a provision of the accounting rule results in misleading information or produce exactly the events and transactions. Such situations can be extremely rare and must be presented explicitly in the notes to the annual financial statements.

IAS 1 provides at paragraph 19 that where "the leadership comes to the conclusion that the entity's compliance with a provision from an IFRS would induce so much in a way that would be inconsistent with the objective of financial statements set out in the general framework, the entity should deviate from that available in the manner described in paragraph 20, if the relevant regulatory framework provides for such an offense or not otherwise prohibited. "

Accounting regulations approved by order of the Minister of public finance nr. 1802/2014, as amended and supplemented "referred to in paragraph 25 that if the application of the rules is not sufficient to give a true and fair view of the assets, liabilities, financial position and profit or loss of the entity, in the notes to the financial statements are provided the additional information needed to comply with the requirement in question.

At the same time to point 26 of the same accounting rules is made that: "If, in exceptional cases, the application of a provision of these regulations is incompatible with the obligations provided for in sections 24 and 25 (relating to the faithful), the disposition shall not apply, in order to give a true and fair view of the assets, liabilities, financial position and profit or loss of the entity. Non-application of such provisions is presented in the notes on the accounts together with an explanation of the reasons and of its effects on the assets, debts, financial position and profit or loss of the entity. "

As seen true and fair presentation of annual financial statements general purpose is a mandatory requirement under the accounting rules, confirming accurate image being assumed leadership entities explicit declarations accompanying the annual financial statements.

4. Regular and accurate in accounting

Among the responsibilities laid down in the "General framework conceptually of IFRS" is the management entities and the one relating to "ensure that the entity complies with the laws, regulations and contractual provisions applicable to " (par. OB 4).

In the case of entities apply accounting regulations approved by order of the Minister of public finance nr. 1802/2014, as amended and supplemented, the conformity of the provisions of the accounting rules with provisions of national legislation shall be ensured from the issuance of these rules. Given that accounting rules may not go beyond the legal framework, applying them appropriately in practice ensure adequate conditions for the presentation of information in the annual accounts.

Accounting regulations, as those applicable to their earlier, were supplemented periodically in order to ensure a uniform legal framework of accounting in relation to the requirements set out in European directives and national legislation.

Entities shall apply the Accounting Rules in accordance with international financial reporting Standards, approved by order of the Minister of public finance nr. 2844/2016 must apply these standards in conjunction with national legislation (art. 2).

The applicable accounting regulations by order of the Minister of public finance nr. 2844/2016 are contained some provisions aimed at harmonizing, to make a link between the requirements of IFRS and legislation, so as to leave the possibility of proper application of IFRS in the context of national legal framework.

Both accounting regulations compliant with European directives and in accordance with the IFRS comprise provisions of a general nature, so that the entity needs to develop policies tailored to the specific requirements of the business accounting.

Accounting policies approved by the managers of the entities do not have to be limited to compliance with accounting rules but also to legislation such as the laws governing the Organization and operation, environmental law, tax law, contractual relations with employees.

The need for compliance with the legal framework has led to the completion of the audit report with a requirement in these sense. Thus, according to the audit report under Directive 56/2014/EU of the European Parliament and of the Council of 16 April 1986 amending Directive 2006/43/EC on statutory audits on the financial statements and the annual consolidated financial statements "of the financial auditor expresses an opinion

audit is unqualified, with reservations or contrary to clearly and presenting the views of the statutory auditor on the following:

(i) if the annual accounts offers a true and fair view, in accordance with the relevant financial reporting framework, and

(ii) where appropriate, whether the annual financial statements comply with the applicable legal requirements.”

The format of this audit report was taken up in both the accounting regulations concerning annual financial statements and consolidated annual financial statements, approved by order of the Minister of public finance nr. 1802/2014, as amended and supplemented and accounting regulations in accordance with international financial reporting Standards, approved by order of the Minister of public finance nr. 2844/2016.

5. True image under the conditions of the application of IFRS as the basis of accounting

The transition to the application of IFRS as a basis of accounting by entities whose securities are traded on a regulated market from the financial year 2012 has posed a major challenge both for the professionals involved in the drawing up and auditing the annual financial statements and the authorities.

The application of IFRS accounting basis as was imposed on these entities in conditions in which there is a legislative environment that must be respected and, in some cases, includes provisions that come in contradicție with the international financial reporting Standards.

On the application of IFRS (order of the Minister of public finance nr. 1286/2012) accounting rules have identified some inconsistencies between the provisions in certain regulations and IFRS, so the rules have been established to meet both legal requirements and IFRS.

Of those mentioned:

a) the law of companies nr. 31/1990, republished, with subsequent amendments and additions, provides a legal share capital registered with the national Office of the trade register, to be published by the company on documents issued by it.

The conditions under which, in Romania it has manifested strong hyperinflation until 2003, companies set up before this year did the inflation update of registered capital, according to IAS 29 "Financial reporting in hyperinflationary economies".

In order not to affect the legal capital was provided by the accounting rule a capital adjustment account (account 1028 "Adjustments to share capital").

Under these conditions, the capital of financial position situation comprises two elements, namely social capital according to the companies Law nr. 31/1990 and the inflation adjustment thereof according to IAS 29 "Financial reporting in hyperinflationary economies".

b) switching to IFRS has assumed most of the times, and the demonstration of a deferred tax. According to IAS 12 "Income taxes" profits tax delayed fade on account of the item that it has generated, whether the profit and loss account, the result brought forward or reserve accounts.

While there are provisions in tax laws that relate to the maintenance of reserve accounts unaffected by this tax, accounting rule "has created" a capital account (1034 Account "Current tax and deferred tax recognised on account of capital and reserves") outlining this tax-deferred. In this case the reserves remain unaffected by the deferred corporate income tax, the value of which is shown in the flow-1034 account "Current tax and deferred tax recognised on account of capital".

c) Some IFRS (IAS 38 "Intangible assets", IAS 16 „Tangible fixed assets ", IAS 2 "Stocks", IAS 19 "Employees Benefits) provide for demonstration in the accounts of some costs of tangible assets, intangible assets (depreciation) as well as stocks and workmanship in the profit and loss account only if they are not shown in the value of another asset (stock or assets under construction of production). Due to the fact that information relating to the entity's expenses are useful both for managers and institutions of the State, through the accounting rule was laid down a requirement that entities should clearly show the expenses after their nature. In order to comply with IFRS, have been brought in time clarifications in that the presentation of information in the profit and loss account shall comply with IFRS, i.e., does not appear in the profit and loss account item of expenditure has been allocated to other assets.

Entities applying IFRS as the basis of accounts shall carry out activities in various fields, some of them having a monopoly, the respective entities find only that such activity. The activities that take place in these conditions are strictly regulated through normative acts, which requires great care on the part of their leadership in preparing the annual financial statements.

6. Case study on the application of IFRS by some entities

Case study of targeted accounts drawn up by the 3 companies with majority state capital carrying out an activity of a monopoly in the field of oil, gas and electricity, namely Conpet, Transgaz and Transelectrica.

The Organization and activity of these companies has some common features, such as:

- are companies whose securities are traded on a stock exchange in Bucharest;
- their shareholders are so-Romanian State represented by the coordinating ministries, which has a majority holding and private shareholders with a significant proportion;
- the work carried out by these companies is "controlled" by the Romanian State by adopting guidelines, including the criteria according to which tariffs are established for services rendered;
- companies have concluded concession contracts (for a period of about 40 years) concluded with the Romanian State shall make available to their national transport infrastructure of petroleum (Conpet), gas (Transgaz) and electricity (Transelectrica);
- national transport infrastructure belongs to the public domain of the State entering within the scope of the Law 213/1998 on public ownership and the legal status of this and other acts of incidents. According to them, the ownership of the public patrimony belongs to the State represented by the central or local authorities who can rent or lease public property assets;
- infrastructure belonging to the public patrimony, royalty companies whose value is determined as a percentage relative to the amount of revenue;
- in the notes to the annual financial statements of the three companies is contained the statement of compliance with IFRS:
 - the annual financial statements of the three companies have been audited by the herriard, audit report confirming that the annual financial statements gives a true and fair view;
 - the annual financial statements were subject to approval by the governing bodies of the company law.

The three companies have identified IFRS applicable sites for both demonstration of public treasures that assets subject to concession contracts as well as improvements made by companies in own sources of financing to these assets.

Law no. 213/1998 stipulates that goods belonging to the public highlighting the heritage in accounting for administrative units.

While there are 12 IFRIC "Concession of services commitments", companies have looked at whether the provisions of this standard are applicable, taking into account the situation of fact and legal provisions.

From the analysis of financial position and situation of the explanatory notes to the annual accounts published by these companies for the period 2012-2015 shows that the submission of inventories is different, although the conditions of work and legal framework are similar, as follows:

- Company Transelectrica has concluded that, given that the majority of the shares in the company are owned by the State, it is a public company and does not fall within the scope of IFRIC 12, since the company pays an annual fee in the form of fee for use of the assets specified in the concession contract, significantly less than the company's depreciation would be recorded for those assets if the concession contract had not been signed.

The basis of the rationales used to company management made, approved accounting policies under which goods belonging to public heritage is highlighting in extrabilanțiere accounts, being treated similar assets that are the subject of operational leasing contracts.

Subsequent expenditures which meet the criteria for recognition as fixed assets financed from own sources of financing of the company conducted in relation to the assets belonging to the accounting treatment of public patrimony have prescribed by legislation, i.e. highlight accounts to fixed assets, pays off and surrender to centralized rule after full depreciation.

The company's management has handled goods Conpet treasures similarly public company Transelectrica.

Company Transgaz which operate under the same conditions as stipulated by the legislation and company Transelectrica and Conpet foresaw in accounting policies that are applicable to the provisions of IFRIC 12 "Concession of services commitments".

The company has reclassified the public patrimony tangible belonging asset headings in intangible assets valued at the value of fixed assets amounted to UN-depreciated and recognized in the statement of financial position an asset (intangible assets) and an equity element, i.e. a book.

In accordance with accounting policies issued by the company, related intangible assets public patrimony is not amortized over the remaining period of the concession contract.

Companies Transgaz and Transelectrica have drawn up the first IFRS statements for the financial year 2012 and presented information restated for the financial year 2011.

The company has compiled the first situation Conpet IFRS for financial year 2013.

The information contained in the statement of financial position under section intangibles and equity from the transition to IFRS by the three companies is presented as follows:

Table no. 1. Situation of the intangible, IFRS compared to OMFP nr. 3. 055/2009, with subsequent amendments and additions

Society	31 December 2012			31 December 2011			01 January 2011		
	Intangible fixed assets			Intangible fixed assets			Intangible fixed assets		
	IFRS restated	RAS	DIFFERENCES IFRS/RAS 2011	IFRS restated	RAS	DIFFERENCES IFRS/RAS 2011	IFRS restated	RAS	DIFFERENCES IFRS/RAS 2011
Transelectrica	-	-	-	51.213.061	77.194.092	66,34%	42.174.298	34.143.352	123,52%
Transgaz	-	-	-	2.458.210.769	11.296.624	21760,58%	2.465.109.102	497.791.432	495,21%
Conpet	6.682.186	6.682.186	100%	9.524.082	9.524.082	100%	-	-	-

Source: Extract from the annual financial statements published on the website of the three companies

Figure no. 1. Intangible fixed assets

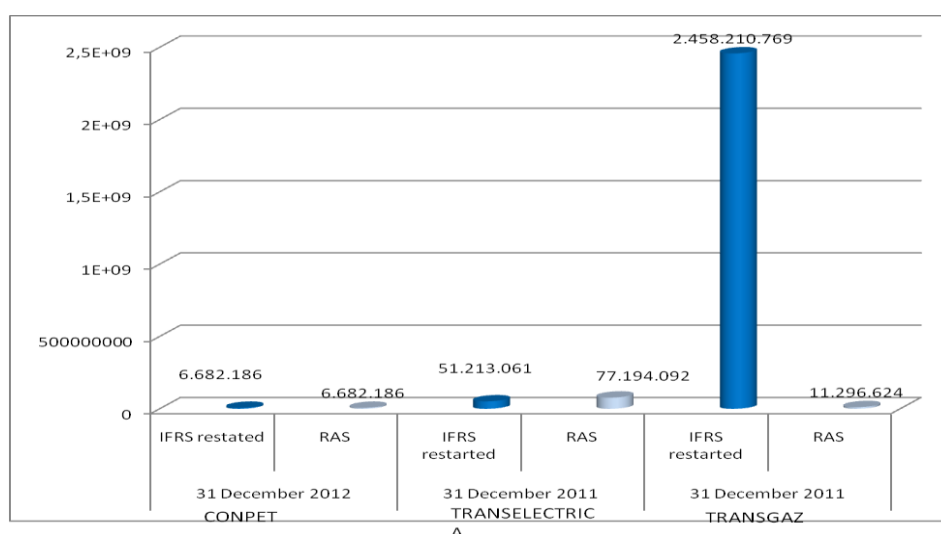
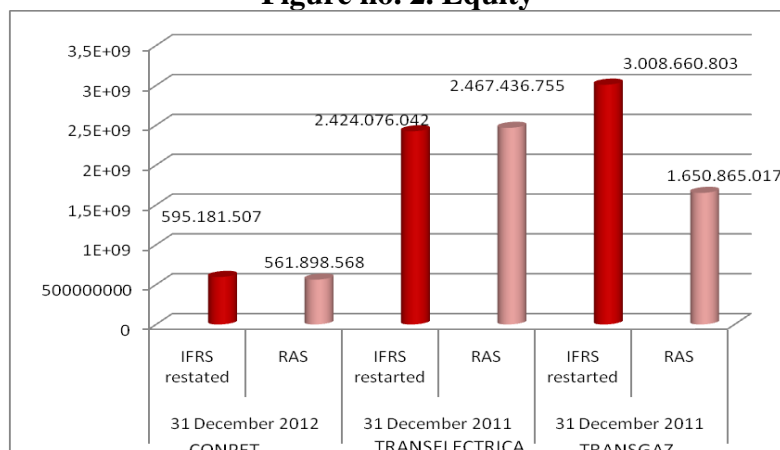


Table nr. 2. Equity situation IFRS compared to OMFP nr. 3. 055/2009, with subsequent amendments and additions

Society	31 December 2012			31 December 2011			1 January 2011		
	Equity situation			Equity situation			Equity situation		
	IFRS restated	RAS	DIFFERENCES IFRS/RAS 2011	IFRS restated	RAS	DIFFERENCES IFRS/RAS 2011	IFRS restated	RAS	DIFFERENCES IFRS/RAS 2011
Transelectrica			-	2.424.076.042	2.467.436.755	98,24%	2.295.506.703	2.355.441.697	97,46%
Transgaz			-	3.008.660.803	1.650.865.017	182%	2.960.191.282	1.579.143.738	187,46%
Conpet	595.181.507	561.898.568	112,22%	574.145.284	540.817.576	111,44%	-	-	-

Source: Extract from the annual financial statements published on the website of the three companies

Figure no. 2. Equity



7. Conclusions

In the case of companies with majority state capital activities regulated by normative acts is essential in drawing up the annual financial statements in compliance with the legal framework.

The leadership of each of the companies analyzed took the Declaration relating to the image of the elements presented in the statement of financial position and the result of the global situation, including compliance with international financial reporting Standards.

Statutory auditors issued unqualified audit opinion for the annual financial statements prepared according to IFRS if the three companies.

The work done by the three companies is carried out through the use of fixed assets belonging to the patrimony of the State, the companies having no ownership interest or a provision thereof.

IFRIC 12 treats public-private partnership, namely the situation where a public authority must make available to a private entity for infrastructure use. There are treated in IFRS when an authority situation puts at the disposal of another public authority infrastructure.

According to the legislation, the investments made in tangible assets public treasures are highlights in the accounts of companies, although they have regarded regime (public heritage).

Apart from companies whose securities are traded on a regulated market shall apply IFRS starting with financial year 2016 (extra), companies and companies with capital or a majority of the State listed in the annex to the accounting regulations in accordance with international financial reporting Standards by some State entities, approved by order of the Minister of public finance 666/2015.

The application of IFRS by some companies engaged in monopoly, managing the assets belonging to the State authorities, involves professional reasoning and appropriate measures for the identification of possible risks which may arise from not harmonizing the provisions of the law and IFRS.

In conditions of excessive legislation and sometimes outdated, presenting an image closely in relation to IFRS and compliance with legal framework represents a challenge for practitioners from companies for auditors recognised and the authorities must assess the management of State capital and to tax profits reported.

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CHALLENGES OF THE MUNICIPAL SOLID WASTE MANAGEMENT IN THE REPUBLIC OF MOLDOVA

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Abstract: Among the many environmental problems that threaten the Blue Planet, waste and garbage is a major one. With the population explosion and the revolutions in agriculture and industry, waste has exceeded the capacity of the environment to absorb and neutralize it. The worst effects of poor management of this waste are air pollution and contamination of drinking water reserves, which leads to increased incidence of disease by pathogens. In the Republic of Moldova, the waste problem remains unresolved, and a number of management issues requires a stringent intervention on behalf of public authorities. This article focusses on municipal waste problem in the Republic of Moldova, starting with problems of localities' sanitation in urban areas, waste storage condition, increase of unauthorised landfills, as well as lack of administrative capacities in elaboration and implementation of a complex program of actions for solid and liquid waste management in the country.

Keywords: circular economy, green economy, municipal waste, recycling, sustainable economic growth, waste hierarchy.

JEL Classification: Q53, Q54.

1. Introduction

Waste management in the Republic of Moldova represents a difficult issue both for urban and rural areas, while the problem of waste increase produced and stored in authorized and unauthorized landfills still remains unsolved both organizationally and legislatively.

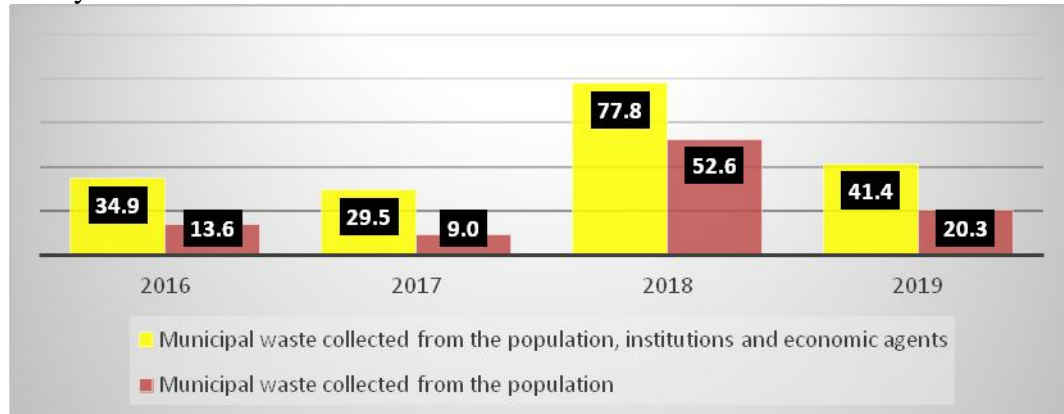


Fig. 1. Municipal waste collected from the population, institutions and economic agents, in thous. c.m.

Source: made by author in base of data provided by the National Bureau of Statistics

Although the environmental protection domain in Moldova is regulated by about 35 legislative acts and over 50 Decisions of Government, the legal aspect of waste management leaves much to be desired, being necessary both the restructuring of the legal and institutional framework, as well as the creation of an integrated system of technical and ecological regulation in the fields of selective collection for recycling, recovery, disposal and waste storage. Improving waste management at the regional or local level is a difficult process, considering that in the Republic of Moldova there isn't a relevant plan of measures adjusted to the specific development of localities, as well as a constructive dialogue between authorities and the population on the choice of optimal measures in the

field of sanitation services. Before implementing the objectives of the legislative objectives, it is necessary to make a diagnosis of the current waste management system. Thus, the successful organization and implementation of an integrated waste management system at the local, or even at the national level must be achieved by understanding the institutional roles, applying effective techniques to monitor the implementation in practice of national legal requirements in the field of waste management, knowledge best practices in the field, including normative tools necessary for the organization of the integrated management system.

2. Municipal waste in the Republic of Moldova: diagnosis of the situation and main challenges

In the Republic of Moldova the institution responsible for municipal waste management is the local public administration, which within the financial resources approved for this purpose by the local council for that budget year, is empowered to ensure the creation of an efficient system of integrated municipal waste management. According to the introductory aspects, *the Waste Management Strategy in the Republic of Moldova for 2013-2027* (hereinafter – Waste Strategy) aims to establish the indicative direction of infrastructure development activities and services necessary for proper waste management in order to protect the environment and health population. It establishes the basis for the necessary framework for the development and implementation of an integrated and socially, economically and environmentally efficient system. Sustainable development in the field of waste is based on controlled management to limit in the short term the impact on the environment caused by its disposal, and in the medium and long term to be socially acceptable and economically feasible.

The basic objectives of the current European Union waste policy, to which we should adjust the national legislative framework, suppose the prevention of waste generation and promotion of reuse, recycling and recovery to ensure environmental protection. Waste is increasingly perceived as a valuable source of raw materials for the industrial sector, with approaches such as reuse, recycling and energy recovery, the regulation of packaging waste, where the end-of-life vehicles, equipment waste, electrical and electronic waste, biodegradable waste and tires is applied. European policy focuses mainly on the separation of biodegradable waste from landfills, but also on recycling and recovery, which helps to prevent environmental pollution and reduce greenhouse gas emissions.

Through the Waste Strategy, the Government of the Republic of Moldova undertakes to develop a new legal and institutional framework for regulating waste management at the level of standards including the regulation of various waste streams and waste operations recycling, recovery and disposal, establishment of an efficient progressive institutional system.

Thus, according to the Waste Management Strategy in the Republic of Moldova for 2013-2027 at local level, environmental agencies and inspections, according to their functions, are responsible for supervising and controlling compliance with environmental legislation by local businesses, including in the waste management process. Currently, one of the responsibilities of the local public administration authorities in ensuring that the collection and transportation of solid household waste lie with the sanitation services. Unfortunately these sanitation services operate mainly in urban areas and only in some rural areas, while the rest of localities are poorly covered by these services.

So, the current structure of district councils does not include subdivisions that would ensure the implementation of environmental policy, including in the field of waste management in the administered territory and administrative management, monitoring, enforcement and enforcement of environmental legislation, by attracting investment. The

implementation of the Strategy is foreseen for the years 2013-2027, being periodically evaluated in accordance with technological progress and economic, social and environmental conditions. Thus, in the Republic of Moldova ***the main actors involved in the management and treatment of municipal waste are:***

- *the central public administration authorities*, which are responsible for the elaboration of environmental policies, but also for the monitoring of their implementation;
- *local public administration authorities*, having the role of implementing the adopted legislation, including in the organization of waste management, through the joint efforts of the authorities at regional level in solving the problems associated with waste management, by creating integrated waste management systems;
- *sanitation services in urban localities*, which will expand their activity in rural localities, benefiting from endowments with modern waste collection technique and equipment, having adequate capacities for waste disposal by storage or mechanical-biological treatment;
- *economic agents involved in waste recycling*, which will have access to secondary raw material, obtained through the selective collection of recyclable waste.

The population is the main beneficiary of the implemented legislative provisions, which according to the Waste Management Strategy, must be ensured with healthier living conditions, access to quality waste management services, information and awareness of new ways of waste management.

Promoting the regional approach in waste management planning is essential both to attract the necessary investments and to ensure the recovery of the high costs allocated for the implementation of the Waste Management Strategy in the Republic of Moldova for the years 2013-2027.

The general objectives of the strategy are:

- 1) development of integrated household waste management systems by harmonizing the legislative, institutional and normative framework with EU standards, based on regional approach and territorial division of the country into 8 waste management regions;
- 2) the development of regional solid waste disposal infrastructure and transfer stations, in line with the practices of EU Member States;
- 3) development of systems for the collection and treatment of specific waste streams (waste electrical equipment, rubber, batteries, etc.) by promoting / implementing the principle "responsibility of the producer".

Currently, in most town halls waste management is part of the sanitation service of localities. Thus, specialized services in waste collection and disposal exist in municipalities, in all district centers, their management being carried out in an organized way through these services, which work on a contract basis with individual generators. In the republic 168 services specialized in waste collection and disposal are activating (56 services in the urban sector and 112 services in the rural sector) (Inspectorate for Environmental protection, 2019). Analyzing the organization of the sanitation service in the country, we notice an enormous discrepancy on the urban and rural sector. The organization of the sanitation service in the municipalities is achieved at a level, although insufficient, but satisfactory, while ***in the localities there is a small number of operators providing sanitation service, but also a small number of vehicles used for sanitation works.***

For example, in Chisinau (572 km², population - 779,339 people), according to statistics for 2020, 13 operators provide sanitation services, at the same time, being involved 278 vehicles used for sanitation works out of a total of 846 vehicles in the country (National Bureau of Statistics, 2020). If we analyze the situation in one district of the country, for example, for the entire Strasen district (area 730 km², present population – 92052 inhabitants) according to data provided by the National Bureau of Statistics for 2018, there are used 8 vehicles for sanitation services. We consider that this number for an entire district is insufficient, and the technical endowment with necessary equipment for waste collection services needs to be improved. The degree of coverage with sanitation services in rural areas, for example, in Strasen district is 40%, which is not sufficient for a district and needs to be extended.

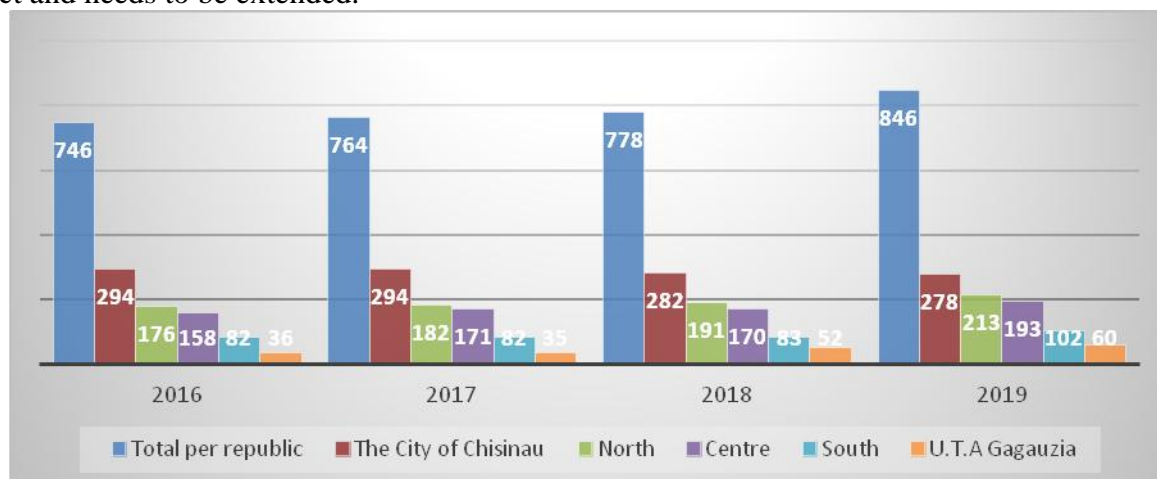


Fig. 2. Number of vehicles used for sanitation works per country and in comparison to regions, units

Source: made by author in base of data provided by the National Bureau of Statistics

It is necessary to develop the infrastructure necessary for the implementation of the principles specific to the Integrated Waste Management System. For example, in the villages, waste is accumulated from the population either in dumpsters or containers from agencies economic and public institutions, which are collected by trucks, or even tractors that are contracted by the mayor's office centrally and transported to the landfill, or authorized or unauthorized pits that are usually located at 1-2 km from the locality. Some of city halls from communes may contract a tractor, which serves the entire locality.

As a method of final waste disposal in the Republic of Moldova remains disposal by storage. In the Republic of Moldova the most widespread method of disposal of municipal waste, the volume of generation of which has increased in recent years, remains its landfill (see fig. 3). During 2015-2018 there is a stable dynamic (about 3 million m³ / year), the amount of municipal waste disposed of by storage (850 thousand tons of solid household waste stored in 2015, 875 thousand tons of solid household waste stored in 2016, 925 thousand tons of solid household waste stored in 2017, 890 thousand tons of solid household waste stored in 2018). The amount of production and consumption waste disposed of by storage differs from one year to another: 1 396.8 thousand tons in 2015, 1 165.1 thousand tons in 2016, 3 475.9 thousand tons in 2017 and 1 004, 7 thousand tons in 2018. The amount of hazardous (toxic) waste shipped to landfills area: 7.7 t in 2015, 8.9 tons in 2016, 58.4 tons in 2017 and 94.7 tons in 2018. Those shipped to landfills for household waste: 17.1 tons in 2015, 98.0 tons in 2016, 620.9 tons in 2017 and 33.0 tons in 2018.

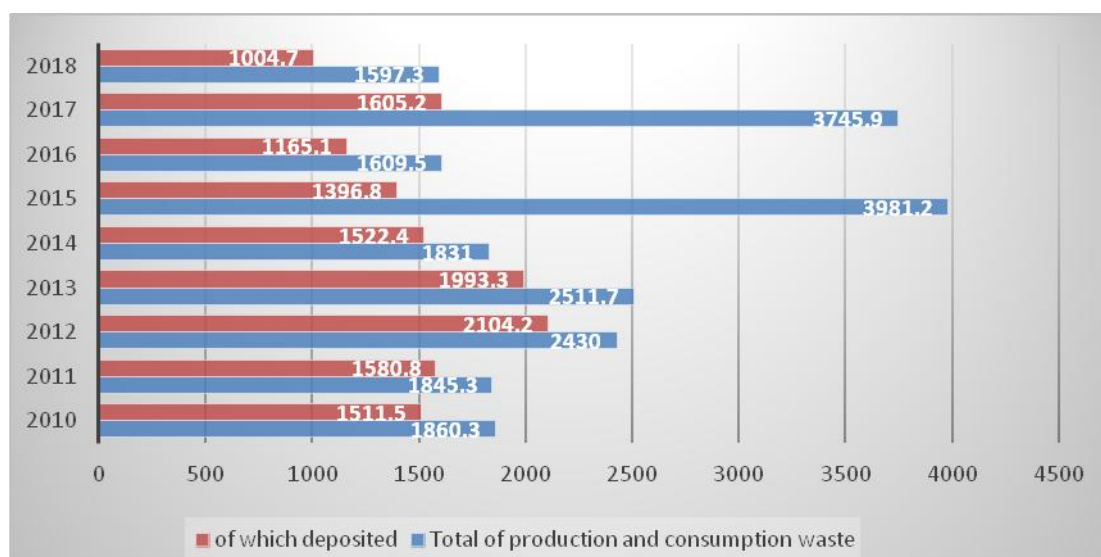


Fig. 3. Formation and final disposal of production and consumption waste, in thou. tons

Source: made by author in base of data provided by the National Bureau of Statistics

In some rural localities, the disposal and transportation of garbage to landfills, or unauthorized landfills in the locality is done individually. *In most cases, the landfills are non-compliant, since they are not equipped to ensure environmental protection*, there are no drainage and leachate drainage systems, which can lead to water leaks from and on the surface of the landfill with concentrations of pollutants (ammonium, nitrates, copper, zinc, etc.). *Non-degradable waste (plastics, metals, electronic waste, household waste) is stored without separation, together with biodegradable waste*, thus creating conditions for the solubilization of metallic parts by acidic waters generated by fermentation processes. These waters represent a "leachate" that flows uncontrollably both on the land in the vicinity of the deposits and in the neighboring stream (with temporary drainage).

At the same time, the lack of a landfill gas discharge system can lead to self-ignition and smoldering of waste and to fumes and unpleasant odors. The deposits are located variously: in silo pits or pits for animal manure, quarries, landslides affected by landslides, roadside, etc.

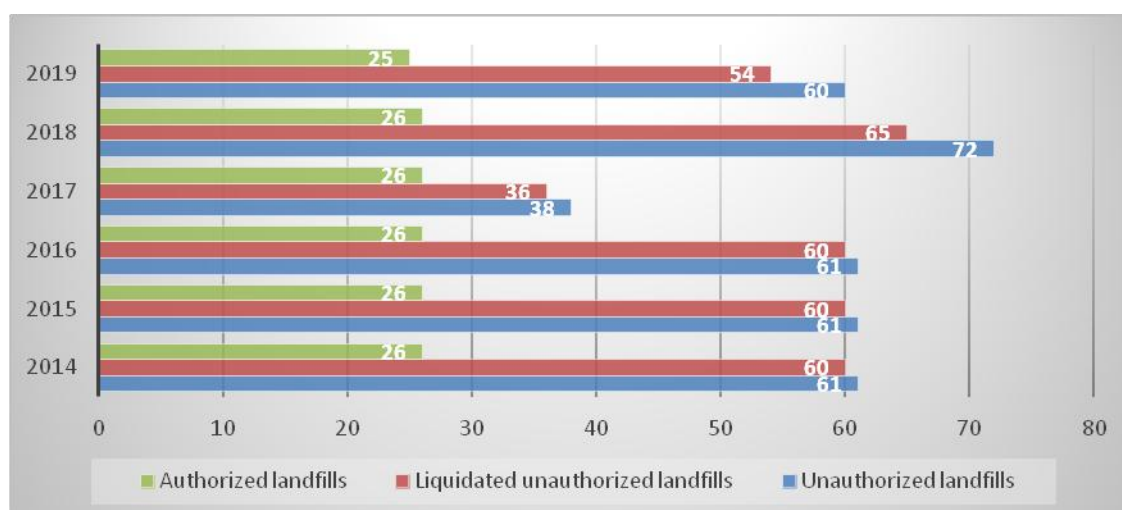


Fig. 4. Number of unauthorized landfills vis-à-vis authorized landfills

Source: made by author in base of data provided by the National Bureau of Statistics

Most landfills are undeveloped, and are built without a construction project. In practically all landfills the waste is stored chaotically, their compaction is missing, periodically being only piled up but not guarded. Usually, the ramps have no dams, except for some cities or communes. The record of waste and quantities transported to landfills is not kept. The landfills for waste disposal in some localities (for example, Găleşti commune, with an area of 0.6 ha) are located on the former chemical landfill. In most cases, shipments of waste to landfills are carried out individually without any evidence.

Waste recycling and recovery rates in the Republic of Moldova are still very low (fig. 5). Many recyclable and useful materials are stored together with the non-recyclable ones, thus losing a large part of their useful potential (paper, glass, metals, plastics). Being mixed and contaminated chemically and biologically, their recovery is difficult. Based on the analyzed data, it is found that rural areas do not have a viable infrastructure for selective waste collection. Only in some localities attempts are organized to collect separately plastic waste and electrical and electronic waste equipment from household waste.

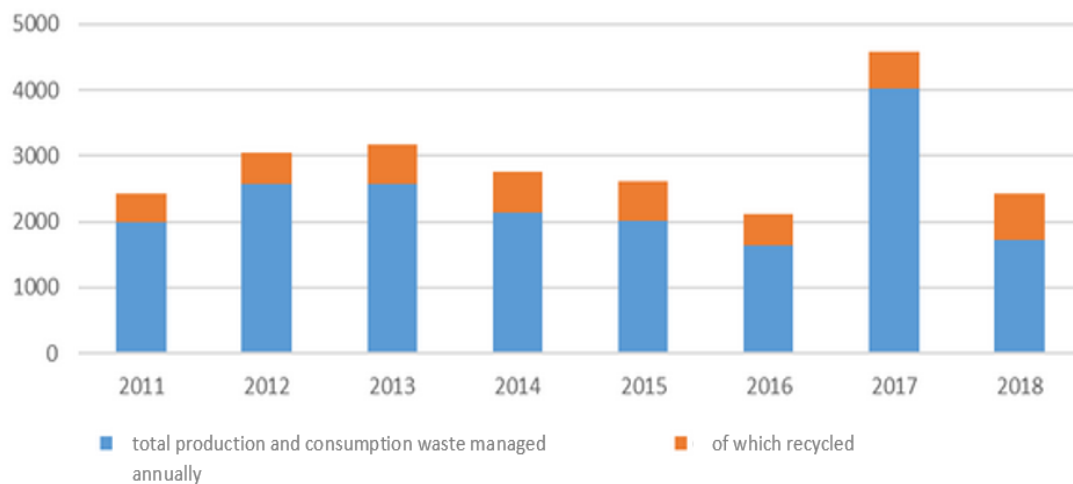


Fig. 5. Production and consumption waste managed annually and their reuse

Source: elaborated by author in base of data offered by the Inspectorate for Environmental Protection

According to data provided by the Inspectorate for Environmental Protection, at present 56 economic agents activate in the Republic of Moldova, which hold authorizations for the management or recovery of plastics, glass, cardboard, paper, WEEE, ferrous and non-ferrous metals (Inspectorate for Environmental Protection, 2019).

The energy potential of biodegradable waste produced annually in the agricultural and industrial sectors could play a key role in solving the energy problem. During 2019, 48 economic agents in the field of pellets and briquettes produced seasonally, which used in the production process cereal straw, sawdust wood, sunflower seed husks, walnut shells and other vegetable waste.

Animal manure is a dangerous source of environmental pollution. At the same time, the sources of biodegradable waste in the livestock sector represent the highest potential for the production of organic fertilizers and biogas by anaerobic fermentation technology, which is not used enough in domestic practice.

According to official statistical data, about 90% of the amount of municipal waste collected by the sanitation services were eliminated by storage, the selective collection being partially organized in Chisinau municipality and several district centers. For the reporting period, there were identified a series of nonconformities: Due to the separate data flows of National Bureau of Statistics and the Inspectorate for Environmental Protection, it is impossible to calculate the real recycling rate by waste categories. There are no real data on the recycling rate of municipal waste. For the reporting period, there is an increase in the recycling rate of production and consumption waste, amounting to 15.3% in 2015; of 29.8% in 2016; of 34.3% in 2017 and of 44.38% in 2018.

The same unsatisfactory situation is in the case of electrical and electronic waste. The issue of e-Waste is a global concern and challenge, most notably affecting weak or developing countries such as the Republic of Moldova, which do not have a functional system for managing this toxic waste, an infrastructure necessary for selective collection of this waste, necessary financial assistance, sufficient specialized and trained operators (recyclers) to act in an e-Waste market, including an adequate level of information and awareness among the population.

In the Republic of Moldova, the WEEE recovery industry is not developed, respectively we cannot benefit from the recovery of important quantities of raw materials. The amount of WEEE collected at national level is mostly exported to large recycling companies in Romania and other European countries (E-circular, 2020).

The only data on the amount of e-Waste generated at national level are found in the Global E-waste Monitor Report 2017 (data for 2016). Taking into account that the overall annual growth rate of the quantity of e-Waste is 3-4%, table 1 also shows the estimated evolution of the quantity generated in the Republic of Moldova for the period 2017-2020 (total and per / place). e-Waste generated in the Republic of Moldova is estimated to be about 2.2 kg per capita, or about 8000 tons - in 2019.

Table 1. Total e-Waste generated and collected in Moldova

Indicator	2016	2017	2018	2019	2020
Total WEEE generated (thou. kg)	6,300	6,804	7,348	7,936	8,571
Kg WEEE generated / inhabitant	1.77	1.92	2.07	2.24	2.41

Source: SGP. 2020. *E-Deșeuri în Republica Moldova. Studiu privind generarea și gestionarea e-Deșeurilor în mun. Chișinău*

During the years 2015-2018 there is a variable trend of formation of hazardous waste, which is decreasing from 3,722 t in 2015 to 1,510.6 tons in 2017, after which in 2018 their volume increased 2.8 times, amounting to 4,254 tons.

At the same time, according to data generalized by the National Bureau of Statistics, the average rate of recycling and reuse of hazardous (toxic) waste is about 90% of that formed (2015 - 935.4 tons recycled; 2016 - 2,277.4 tons recycled; 2017 - 6 167.9 recycled tons; 2018 - 4,582.1 recycled tons). Also, there is a sudden increase in the rate of recycling

of hazardous (toxic) waste from the amount of waste dangerous existing at the end of the year (in stock): 15% in 2015, 20.1% in 2016, 62.2% in 2017 and 59% in 2018 (NBS, 2019).

Another issue for which there is currently no solution in Moldova is the problem of pollution with protective equipment used by the population during the pandemic. Microplastics have become an environmental problem in the world because they cannot be collected by filters, and when they pass through wastewater they can collect harmful bacteria that they can carry with them. Data provided by the Ministry of Health in 2018 state that, annually, medical institutions in Moldova produce approximately 8,700 tons of medical waste. Among them - infectious waste, household or human parts removed. It is not known, however, how much these figures increased during the pandemic, when the amount of equipment and utensils used by doctors became much higher, given the disposable suits, but also the exponential increase in the use of medical masks and gloves.

According to the Sanitary Regulation on the management of medical waste, approved by the Government on July 11, 2018, in the context of alignment with European standards in the field, each hospital must have a central space for temporary storage of medical waste. Furthermore, the act stipulates that the duration of storage must not exceed 48 hours in the case of hazardous waste and more than 180 hours in the case of harmless waste.

The managers of the hospitals in the country claim that they respect these norms, and during the pandemic the verification of this aspect is even more rigorous. According to the World Health Organization, the estimated operational costs for treating one kilogram of waste vary between \$ 0.13-2.2, depending on the method. In our country, the annual costs of treating this waste could reach about nine million dollars. The Ministry of Health has made a series of calculations, according to which currently, at the district level, it would be necessary to procure and install an autoclave with a capacity of 200 liters needed to treat infectious waste, the investment costs being about \$ 3.9 million.

3. Conclusions.

Unfortunately, our current production and consumption systems do not offer many incentives for waste prevention and reduction. From product design and packaging to material choice, the entire value chain must be redesigned with a view to preventing waste from the outset, as the "waste" from one process can then be turned into a raw material for another. Advancing the scale of the waste hierarchy requires a common effort of all parties involved: consumers, producers, decision makers, local authorities, waste treatment units, etc. Consumers willing to sort their household waste can only recycle if the infrastructure for collecting the waste they sort is created. The reverse is also true; municipalities can recycle a larger proportion only if households sort their own waste. Ultimately, waste can only be a problem or a resource depending on how we manage it.

Sorting waste would be only part of the problem, or without the ability to process paper, plastic, sorted metal - the problem remains just as complicated. There is no point in educating people to sort waste as long as there is no infrastructure for their processing activities. The state must create this infrastructure. According to the law, LPAs must organize the waste management system in such a way that it is collected separately, a good part of it can be recycled, composted, and go to the landfill, only 3-5% of 100%. The LPAs must organize separate platforms for waste collection that are accessible and understandable for population. Also enforcement mechanisms in case of violations should be created and applied. Garbage should be thrown only on the platform and only collected separately. The entire LPA must come to the aid of economic agents to allocate space, considering that the extended responsibility of the producer should be applied.

Waste could be collected through the bins installed in each household, street containers or platforms installed in slums. Another method would be for people to collect household waste in garbage bags or collect recyclable waste, plastic, glass and paper in garbage bags, and residual waste - in the bins installed in each household. Another way is to provide for the collection of recyclable waste in containers on collection platforms, and residual waste - in the bins installed in each household. At the same time, people should be trained on the importance of waste separation, as well as on the possibilities to separate garbage.

It is important to establish an efficient selective waste collection in all localities, as well as the creation of facilities for sorting, composting and recycling of waste. Also, the waste transportation system should be improved, as well as solid household landfills at the regional level and stations for their mechanical-biological treatment should be built.

State involvement is needed to solve the waste problem. At the same time, residents should be responsible for the separate collection of waste, but also for signing contracts with waste management operators and paying the sanitation fee. Thus it is necessary to develop a methodology for calculating tariffs, taking into account the fact that at present these tariffs are developed by the local public administration, based on very old regulations, which are already outdated in time and do not reflect real costs for an adequate waste management. Even if there is legislation in the field, there is currently no clear regulation that would require every household in the Republic of Moldova to connect to the sanitation service, and local public administrations do not have the leverage to require people to pay for these services. According to a survey conducted by ABS Recycling in May 2020, which was attended by about 5,000 people, it was found that 98% agree to pay a more expensive tariff, with about five lei, for sorting.

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CHALLENGES OF LABOR MARKET TRANSFORMATIONS TOWARDS SOCIAL POLICIES IN THE REPUBLIC OF MOLDOVA

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Abstract: *The transition to market economy and the prevalence of private property have contributed to the development of new labour relations. The coexistence of different forms of employment has conditioned the research of the determinants of formal and informal employment and their impact on the economy. In different countries, standard and atypical employment exists as a result of its own scenario depending on the socio-economic development model, the law framework, involvement in globalization processes, the dependence of the economy on foreign markets, etc. In the Republic of Moldova, which is not an exclusion, two opposite forms of occupation have been developed - formal and informal. Formal employment is based on labour legislation, respect for rights, social and human guarantees, stable socio-economic development, but informal leads to violation and non-compliance with labour rights, social protection for hiring workers, insufficiency and a deficit of budget income, which does not promote all measures for the country's development. Based on the logistical analysis of the impact of social and demographic factors on the development of informal employment, its consequences on the financial stability of the social insurance budget, financial losses due to non-payment of social insurance contributions were highlighted. Some conclusions and proposals to improve the situation in labour market, transforming informal to formal employment, increasing the financial stability of the social protection system were elaborated.*

Keywords: *social insurance, main employment indicators, forms of employment, formal and informal employment, social policies, wages, income.*

JEL Classification: *E24, I31, J17, J31, R23.*

1. Introduction

The specific tendency of the contemporary labour market is the transformation of forms of employment. Thus, the standard employment, which was traditional for the economy of the XXth century, gradually gave way to more stable forms of employment and instead of stable employment, through labour contract with unlimited and full labour regime, have been developed such forms of employment as employment partial, temporary, secondary, independent, etc. The standard form of employment predominates, as a rule, in advanced countries (in the USA, European countries the share of this form is up to 70%), while in underdeveloped countries and countries in transition to the market economy the most common forms are self-employment, casual employment and other forms of unstable employment. On the basis of the analysis of specialized literature of the scientific community on this subject, it was established that there is no unified point of view on the impact on socio-economic development and the quality of labour force in non-standard forms of employment.

So, the American sociologist A.L. Kalleberg considers that labour agreements and non-standard working conditions are the main types of employment that makes it possible for flexible planning - flexible work programme (Kalleberg, 2020). Another factor influencing on the development of new types of work places is the impact of globalization processes of world economic system which has contributed to the globalization of forms by using of labour force or some new models the organization of work places (outsourcing) or the refusal of firm or organization to execute a set of functions or part of business processes, as well as to transfer them to another economic agent who professionally specializes in performance such types of product or services, including their placement

abroad (offshoring) with the aim of reducing the costs of work places creation which has led to the creation of different types of work places (non-standard employment) and, respectively, employment of employees (Kirkegaard, 2007; Jensen and Kletzer, 2008; Scott, 2007).

Some factors that have contributed to the development of non-standard (atypical) employment are conditioned by the diminishing (weakness) of the trade unions role, as well as the ongoing demographic changes in labour force structure, including the increase of women share, of elder population groups in labour market and a downward tendency of young employees, who often prefer flexible working hours, which are specific forms of non-standard employment and allowing young people to participate simultaneously in 2 or more different types of socio-economic activities or to combine them with learning process (Pfeffer and Baron, 1988; Jackman and Rutkowski, 1994; Rosnick, 2010).

Non-standard employment from the point of view of V.E. Gimpelson, R.I. Kapeliushnikov (2005) means all types of employment that differ from standard, including conditions of hiring, labour regime, duration of employment contract, working place and this interpretation is also supported by J. Fudge, R. Owens (2006) and A.L. Kalleberg (2000, pp. 341-342), taking into account the accessibility of social protection. Also, scientists V.E. Gimpelson, R.I. Kapeliushnikov (2005) underlines that the employer's use of non-standard employment allows for a greater level of freedom of action and flexibility in the use of labour force as the equilibrium between protection and liberal norms of labour use by the employer, as well as and highlights 8 atypical types of employment, including part-time, temporary, informal, overemployment, secondary employment, etc. Scientists V.E. Vanchevichi, V.O. Zaițeva (2015, p. 132) mentions in its capacity as specific characteristics the conditions for concluding the employment contract, the duration of employment regime, placement of work place (telecommuting), the type of employment and employer.

The problems of the emergence and development of non-standard employment are reflected in scientific papers of scientists in Germany - W. Eichhorst, V. Tobsch (2013), Central and Eastern Europe - K. Lipták (2011), Romania - C. Ghinararu and L. Mladen (2016), USA – J.T. Addison and C.J. Surfield (2009), Italy - R. Bardazzi & S. Duranti (2016). Non-standard employment, on the one hand, contributes to adaptation of employers and employees to the continuous change of socio-economic conditions, strengthening the stability of labour market (D.A. Bezrukov (2009, p. 12), V.E. Gimpelson and R.I. Kapelyushnikov (2005), and at the same time, the social vulnerability of employees is increasing. In parallel, the concept of flexicurity (T. Wilthagen and F. Tros (2003) provides for the implementation of policies aimed at equilibrium the flexibility of labour force market and the security of employed labour force.

In contrast to the methodological approaches and definitions proposed by scientists, the International Labour Organization has established that atypical or non-standard employment (International Bureau of Labor, 2017) is linked to the period of concluding of employment contract (usually for an indefinite period), to the length of work time (complete/incomplete labour regime, temporary etc.), multilateral labour relations (indirect subordinate relations with the end user), types (forms) of hire etc.

2. The prerequisites for the development of different forms of employment.

The Republic of Moldova is no exception in this process and labour market develops forms of employment that differ by at least one of the criteria established in national legislation, including urgent employment, work with part-time regime, occasional employment and other forms of multilateral relations of employment, including disguised employment relations and independent employment.

The analysis of the tendencies the transformation of employment forms from one to another on labour market is concluded that it is not a short-term phenomenon, but a longer period and represents the characteristic of socio-economic development the modern society. The main causes of formation the different forms of employment are the level of internal and external socio-economic development, the demographic situation, the existing national traditions in society, as well as the effectiveness of state policies promoted to solve pressing problems in relevant fields (Vishnevskaya et al., pp. 39-40; International Bureau of Labor, 2017, p. 45; Pisica, Vasile and Voineagu, 2012, p. 473).

3. Demographic situation and its impact on employment

The share of women predominates over that of men in structure of population of the Republic of Moldova (52,2% women compared to 47,8% for men in 2019, practically, being at the same level for the last 5 years), including on 01.01.2020 the share of the population aged 16-62 was 59,0% of usual residence population, of which the share of men was 52,6% and women 47,4%.

Table 1. Structure of usual residence population by age groups and sex, on 01 January 2020, %

Share of population by main age groups, % of total and by age groups	Both sexes	By gender	
		Males	Females
Total population including:	100,0	100,0	100,0
Males and females aged 0-15 years (0-15), % of total	19,6	21,6	17,8
Males 16-62 years and females 16-57 years (16-62/16-57), % of total	59,0	64,6	53,8
Males 63 and over and females 58 and over (63+/58+), % of total	21,4	13,8	28,4
By age groups			
Total population by sex	100,0	48,1	51,9
Males and females aged 0-15 years	100,0	52,8	41,2
Males 16-62 years and females 16-57 years	100,0	52,6	47,4
Males 63 years and over and females 58 years and over	100,0	31,1	68,9

Source: Authors' calculations on the basis of NBS RM data, www.gov.statistica.md

During the analyzed period in the conditions of population decline (as at 01.01.2020 compared to 01.01.2015 the number of usual residence population decreased by 7,2%), the share of women predominates compared to men, the analyzed correlation between the last years was within the limits from 107,8% (2016) to 109,40% (2018). The demographic burden indices are increasing: the number of working age population has gradually increased from 60,6 as at 01.01.2014 to 69,6 per 100 persons of working age. At the same time, the average age of the population was increasing, including the average age of women is higher than that of men (Table nr. 2) ¹.

Table 2. Evolution of changes in main demographic indicators, 2014-2020

	2014	2015	2016	2017	2018	2019	2020
Total population, the	2869,2	2844,7	2824,4	2780,0	2730,4	2686,1	2640,4

¹ NBS RM, Statistical Yearbook of the Republic of Moldova 2020, Chisinau. BNS, Anuarul statistic al Republicii Moldova 2020, Chişinău, pp. 39-41, www.gov.statistica.md.

beginning of year, thousands persons							
% compared to the previous year	-	99,1	99,3	98,4	98,2	98,4	98,3
Correlation between females and males, %	108,56	108,05	107,80	108,40	109,17	109,40	108,05
Natural increase, ‰	0,5	0,3	0,6	-0,1	-1,0	-1,7	-
Mean age of population, years	37,4	37,7	37,9	38,1	38,5	38,8	39,3
- males	35,7	35,9	36,1	36,4	36,7	37,0	37,2
- females	39,0	39,3	39,5	39,8	40,1	40,5	41,2
Demographic dependency indices, as of 1 January, per 100 people of working age, %							
Total non-working age population, including:	60,6	62,0	63,7	66,5	69,4	67,5	69,6
a) under working age	30,6	30,9	31,4	32,5	33,4	33,0	33,3
b) over the working age	30,0	31,1	32,3	34,0	36,0	34,5	36,3

Source: NBS RM data and authors' calculations, www.gov.statistica.md

In the Republic of Moldova, the process of demographic ageing is deepening against the background of population decline, which cannot but affect the labour market. Demographic and nature of population reproduction changes, a decrease in the birth rate and an increase in life expectancy at birth have led to an increase in the proportion of elderly. Life expectancy at birth increased by 1,6 years in 2019 compared to 2014, including 1,6 years for men and 1,5 years for women. The analysis of these indicators reflects the ageing process of population and for the period 2014-2019 the ageing coefficient increased by 3,7 p.p. at the beginning of the years, including men or 3,1 p.p. and women or 4,1 p.p.

Table 3. Dynamics of demographic indicators¹, 2014-2019

	2014	2015	2016	2017	2018	2019	2020
Life expectancy at birth, RM, years	69,3	69,4	69,9	70,8	70,6	70,9	-
Males	65,2	65,2	65,7	66,7	66,3	66,8	-
Females	73,6	73,7	74,2	74,9	75,0	75,1	-
Ageing Coefficient, RM ² , on January 1, %	17,5	18,1	18,5	19,2	20,0	20,8	21,8
Males	14,5	15,0	15,4	16,0	16,7	17,5	18,1
Females	20,3	21,0	21,5	22,2	23,0	23,9	25,1

¹ For estimation the research results the number of population with usual residence was used.

² At the beginning of 2014-2020.

Source: NBS RM data, www.gov.statistica.md

Increasing life expectancy has been one of the factors in prolonging the active life of retired people. According to the NBS data, the share of pensioners trained in the field of work for the period 2014-2019 was increasing by 0,9 p.p. (from 22,5% (2014) to 23,4% (2019)). Only in 2018 there was a decrease in the number of retirement pensioners (de facto), while their growth rate began to decrease in 2017 (*Fig. nr. 1.*). At the same time, the stable tendency to increase or maintain the share of employed pensioners was observed (*Fig. nr. 2.*).

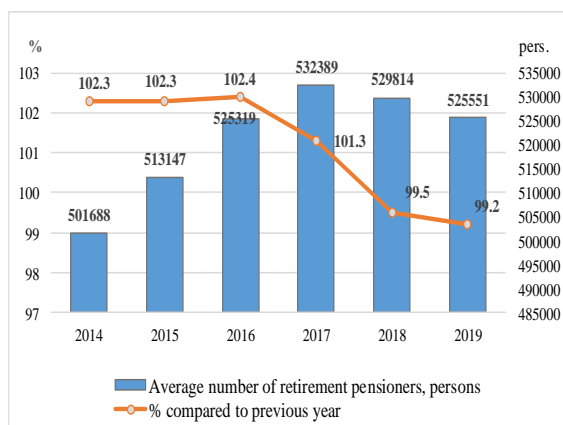


Fig. 1. Dynamics of number

**of retirement pensioners,
annual average 2014-2019, persons**

Source: NSIF RM data and authors' calculations,
www.cnas.md



Fig. 2. Dynamics of employed pensioners' share,

2014-2019, %

Source: NBS RM data, www.gov.statistica.md

The national legislation frameworks do not provide for any restrictions or discriminatory provisions in the field of human rights, including by, at the same time, during optimization and reorganization, first of all in formal sector, as a rule, the categories of employees of pre- or pension age fall under the reduction first. At the same time, having a small pension and much lower than the wage, the working population had to search for work, a work place taking into account aim at ensuring an improved living for his family, the *replacement rate* of wage had the decreasing tendency and constituted in 2019 only 23,6%. The amount of pension indexation index was also decreasing: in 2019 this index was less than in 2016 by 4,8 p.p. and the previous year by 1,3 p.p. (respectively, in 2016 – 10,1%, in 2017 – 6,8%, in 2018 – 6,6% and in 2019 – 5,3%)¹, which in conditions of the increase of *Consumer Price Indices* reduced even more the real amount of pensions. In such a situation, it is difficult to imagine that the value of pension according to the international standard must be at the level of 42% and a *new social standard* established at the level of 50% and over of wage received².

The ratio between wage and the average amount of pensions in the Republic of Moldova was reflected in *Fig. nr. 3*.

¹ According to the data www.cnas.md and www.statistica.gov.md.

² ILO Convention no. 102 on the minimum social security standards, 1952, which the Republic of Moldova did not ratify, established the replacement rate of 40%, and according to the ILO Convention no. 128, this amount should be at 45% for developed countries. For example, in Ukraine the replacement rate is 50%, including for those who have worked in sphere of science, given rate is up to 80%, for public service - 75%, in Russia this rate is 40%, in France - 70 -80%, in Croatia - 80-90% [13; 29, pp. 72-73].

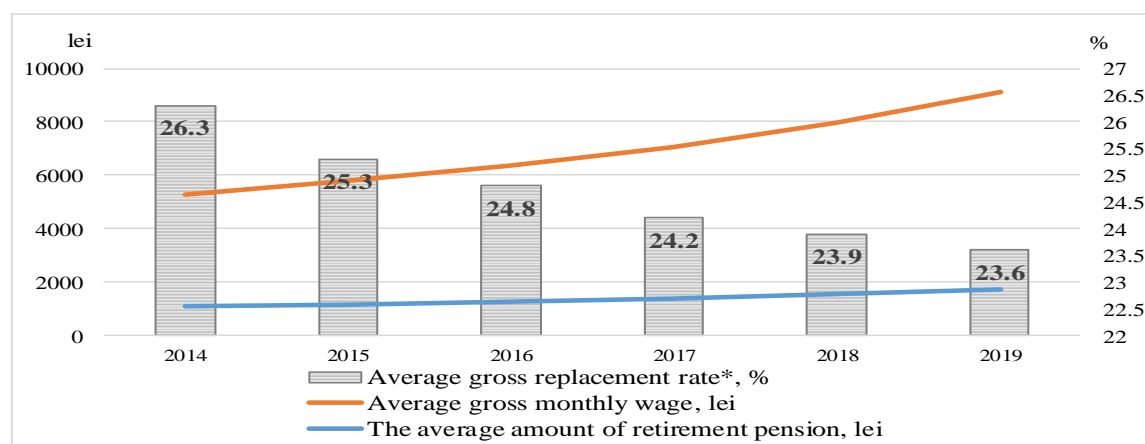


Fig. 3. Dynamics of the average amount of retirement pension and average gross monthly wage, 2014-2019

Source: NBS RM, NSIF RM data and authors' calculations, www.cnas.md și www.statistica.gov.md

The average amount of retirement pension in the agricultural sector on 01.01.2020 was 1447,4 lei or at a level 14,3% below the extreme poverty line, in the non-agricultural sector its amount was 2,5 % less than the absolute poverty level. Moreover, the average amount of retirement pension by sector was also 12% lower than absolute poverty, the ratio between pension in the agricultural and non-agricultural sector remains at 29,1% and between women and men at 20,7% less and on 01.01.2020¹.

The process of demographic ageing has had an irreversible tendency, contributing to the modification of the structure of labour market towards the older adults and this fact must be taken into account for elaboration of employment and social protection policies. In this context it is necessary to mention the tendency of structural change of economic development or if previously it was characterized by the transition from primary to secondary sector or from agriculture to industry, in the present there is the transition from industry to services (57,3% in 2019, while the share of those employed in agriculture decreased to 21,0%) or to the tertiary sector of the economy, which ultimately allows the transition from standard employment to "non-standard or informal employment", which is much more specific for this sector than for industrial enterprises. Under these conditions, the development of information and computerized information technologies also expands the opportunities to participate in informal economic activities, making it easier the exit from the "visibility" area for the state. At the same time, the development of the service sphere is caused by the social differentiation of society, concentration the most part of population with richer economic well-being, contributed to the demand for services provided by hiring domestic workers, whose profession is considered informal.

Table 4. Population structure aged 15 years and over(15+), %

	2014	2015	2016	2017	2018	2019*
Total population	100	100	100	100	100	100
Labour force	36	37	37	36	38	35
including:						
Employed population in economy	34	35	35	35	37	33
including sectors:						
Agriculture	32,4	34,2	36,6	35,5	39,3	21,0

¹ NBS RM, <https://statistica.gov.md/category.php?l=ro&idc=200>.

<i>Industry</i>	12,0	11,8	11,5	11,2	11,0	14,7
<i>Construction</i>	5,4	5,3	4,9	4,5	4,6	7,0
<i>Services</i>	50,2	48,7	47,0	48,8	45,1	57,3
<i>BIM unemployed</i>	1	2	1	1	1	2
<i>Population outside the labour force</i>	64	63	63	64	62	65

Note: * Beginning with 2019, the Labour Force Survey is realized according to the new survey plan and according to the revised definition of employment. The results of LFS are extended to the number of the population with usual residence. The results of LFS for the period up to and including 2018 have been recalculated, using the population with usual residence.

Source: NBS RM data, www.gov.statistica.md

The expansion of the nominated services has led to the increase in women's economic activity and employment rate. Taking into account the feminine nature as a mother, a wife, a housewife, the interest of women is to combine work in labour market with the fulfillment of family and childcare obligations taking into account this fact, especially, in recent decades women have created the demand for various flexible work regimes, including and the existence of non-standard forms of employment. At the same time, the labour legislation and standard employment do not give the possibility women with preschool children to fully participate in the established work regime. Thus, the participation of women in labour market remains at a lower level than men, and the employment rate is lower than the national average, which is reflected in the data in *Table nr. 5*.

Table 5. Dynamics of main employment indicators by gender, %

	2014	2015	2016	2017	2018	2019*
Economic activity rate	43,3	44,5	44,8	44,1	45,9	42,3
Males	46,9	48,2	48,7	48,3	49,9	47,0
Females	40,0	41,2	41,3	40,4	42,4	38,2
Employment rate	41,7	42,4	43,0	42,4	44,5	40,1
Males	44,8	45,3	46,1	46,1	48,1	44,2
Females	38,9	39,8	40,2	39,1	41,4	36,5
Unemployment rate	3,7	4,7	4,0	3,9	2,9	5,1
Males	4,5	5,9	5,2	4,5	3,4	5,8
Females	2,9	3,4	2,7	3,2	2,4	4,4

Note: * Beginning with 2019, the Labour Force Survey is realized according to the new survey plan and according to the revised definition of employment. The results of LFS are extended to the number of the population with usual residence. The results of LFS for the period up to and including 2018 have been recalculated, using the population with usual residence.

Source: NBS RM data, www.gov.statistica.md

In 2019, the men's labour force *economic activity rate* (participation rate) was higher and was 8,8 p.p. higher than women's and the employment rate, respectively, exceeded by 7,7 p.p. At the same time, the *unemployment rate* for men was higher than for women by 1,4 p.p. In 2019, the share of men in employed population was 51,3% and women 48,7%. At the same time, can be mentioned another fact about inactivity - among those inactive by 2019 for the last four years, their share has increased by 1,4 p.p. due to housework/family care (up to 12,9%) in the total inactive population or, in principle, the vast majority of them are women (in the group of youth 15-29 years this share in 2019 constituted 59,5% compared to of 29,6% in 2016) (BNS, 2019). Thus, the participation of

the person capable of economic activity depends from some circumstances in which this person is.

In the context of analyzing the possible reasons for the emergence and development of different forms of participation in economic activities, it is necessary to note the intensification of international migration processes, as a result of which having limited access to formal employment, some migrants are forced to "settle" in informal work places. In order to prevent these cases, the state promotes policy of establishing "quotas" in labour force with the professions currently required on labour market, including the limited time for hire. At the same time, referring to the processes of the world economy's globalization and the integration of developing countries into the international system of division of labour, have the fact that, in order to maintain competitiveness, many companies had to begin radically reducing their costs of labour force. And the most simple way to achieve this goal is "shadow work", the transfer of work places to informal work places, this includes and offshore development which can be observed in the Republic of Moldova.

The existence of *different forms of employment* the working age population in economic activity, it can be noted that the experience of many countries shows that under certain conditions, non-standard employment may have an incomparably more potential of growth than standard employment or the formal sector. This is explained by the fact, that in order to increase the education level and more abilities the person seeks a more flexible labour regime than the one existing in the unities of formal sector. At the same time, non-standard forms of employment, including informal sector, have some advantages taking into account the modification of relations between employers (patrons) and employees because they are oriented toward use the maximum of opportunities for realization the interests and needs of both parties.

The development of various forms of employment in the Republic of Moldova has been accentuated in the process of transition to market economy, including following the implementation of new forms of property (private, mixed, with foreign capital, etc.), reduction of employed population, intensification of labour migration flows, promotion during the analyzed period of the consumption-oriented economic development model and the sinusoidal changes of macroeconomic indicators due to the influence of external and internal factors (global financial crisis and recession of largest economies of foreign countries (2009); increasing demand for domestic production in EU countries; recession and trade restrictions of the Russian Federation on some agricultural products; crisis in Ukraine; internal summer droughts, political instability, etc.). In 2019 the GDP growth was 3,7% compared to the previous year, having a high degree of dependence from external national economy, the negative result of activity of agricultural sector, etc. The real average monthly wage index of a worker in economy (Real Wage Index) was 110,1% compared to its increase in absolute amount of 115,4% or 5,3 p.p. due to the increase in the Consumer Price Index (CPI), the increase of the retirement real of the amount of pension corrected by CPI was only 106,9%. The changing tendencies of some important macroeconomic and social indicators are reflected in *Table nr. 6*.

Table 6. Dynamics of some main economic and social indicators, 2014-2019

	2014	2015	2016	2017	2018	2019
GDP , comparable prices, million lei	125 509	133 030	152 180	168 358	186 575	199 599
Physical volume Index of GDP , previous year = 100,0 %	105,0	99,7	104,4	104,7	104,3	103,7
Physical volume index of GVA total, previous year = 100,0 %	105,4	99,6	105,0	104,2	104,4	103,9
Industrial production volume index, % to previous year	107,3	100,6	100,9	103,4	103,7	102,0
Agricultural production volume index,	108,6	86,6	118,8	109,1	102,9	98,1

% to the previous year						
Physical volume index of GDP per capita compared to previous year, %	105,0	99,7	104,4	104,7	104,3	103,7
Average monthly wage (economy worker), lei	4089,7	4538,4	4997,8	5587,4	6268,0	7233,7
% compared to previous year	111,3	111,0	110,1	111,8	112,2	115,4
Real Wage Index, compared to previous year = 100,0 %	105,9	101,2	103,5	104,9	108,9	110,1
Consumer Price Index (Price Index, average, monthly), compared to the previous year = 100,0 %	105,1	109,68	106,36	106,57	103,05	104,84
-food goods	106,5	109,85	107,35	107,93	105,39	107,61
-non-food goods	105,5	111,80	106,32	104,53	102,67	104,19
-services	102,5	106,17	104,90	107,06	99,78	101,47
Average amount of the monthly pension established, at the end of the year, lei*	1087,6	1165,2	1275,2	1527,8	1709,2	1901,1
% compared to previous year	106,6	107,1	109,4	119,8	111,9	111,2
Real index of established average monthly pension, compared to previous year = 100%	101,4	97,6	102,9	112,4	108,6	106,1
Average amount of monthly <i>retirement pension</i> , at the end of the year, lei*	1114,7	1191,8	1301,1	1456,9	1643,7	1842,9
% compared to previous year	106,2	106,9	109,2	112,0	112,8	112,1
Real index of <i>retirement pension</i> , compared to previous year = 100,0 %	101,0	97,5	102,7	105,1	109,5	106,9

Note: * Beginning in 2017, the average pension amount was calculated taking into account the pensions of law enforcement pensioners (officials or agencies).

Source: NBS RM, MEI data and authors' calculations, www.statistica.md; www.gov.mei

Thus, it can be concluded that it is difficult to identify the certain sustainable tendency in their development because in reality they are more characterized by the sinusoidal line of change, which is more typical and taking into account that labour market is the derivative economic development, employment of labour force, in particular, forms of employment, are directly or indirectly dependent on structural reforms or other processes of socio-economic infrastructure change taking place during the transition period. And as result of these processes is the intensification of mobility and redistribution of labour force between socio-economic sectors and localities.

Table 7. Structure of employed population by forms of property and sex

	2014	2015	2016	2017	2018	2019*
Total employed population, thousands persons	981,5	989,1	993,7	960,8	988,5	872,4
including: % of total						
Public	25,8	26,1	26,5	25,2	22,8	29,3
Private	66,3	66,2	68,8	66,8	69,3	60,7
Other	7,9	7,7	4,7	8,0	7,9	10,0
Males, total, thousands pers.	496,5	499,1	501,0	490,9	497,7	447,4
including: % of total	50,6	50,5	50,4	51,1	50,3	51,3
Public**	36,6	35,9	36,2	37,3	36,8	35,8
Private**	56,8	56,8	56,3	57,0	55,4	59,3
Other**	44,5	44,9	41,7	45,6	45,2	48,0
Females, total, thousands pers.	485,0	490,0	492,7	469,8	490,8	425,0
including: % of total	49,4	49,5	49,6	48,9	49,7	48,7

Public**	63,4	64,1	63,8	62,7	63,2	64,2
Private**	43,2	43,2	43,7	43,0	44,6	40,7
Other**	53,5	55,1	58,3	54,4	54,8	52,0

Note: * Beginning with 2019, the Labour Force Survey is realized according to the new survey plan and according to the revised definition of employment. The statistical data in 2019 are interrupted and not comparable with the previous period 2014-2018.

** Including public (or private, or other) property, %.

Source: NBS RM data and authors' calculations, www.statistica.gov.md

The private sector population employed predominates taking into account that the share of those employed during 2014-2018 is in the limits of 66-69%, as well as the major share (60,7%) in 2019 (the decrease is explained by applying the new methodology and exclusion from employed population the persons employed in households who use the results of their labour for self-consumption). Analyzing the employed population by sex, it can be noted that men prefer to work in the private sector (56-59%) and other forms of property (up to 48%), conversely, the vast majority of women work in the sector with public property (63- 64% and over of population employed in this sector), it is explained the desire of women to have a more stable, protected work place and some social guarantees.

At the same time, given processes have contributed to the redistribution of working age population in favor of the development the non-standard forms of employment, in particular, informal employment. Against the background of objective or subjective reasons in this field there are some other wishes that are specific to youth or to have a more free and unlimited working programme (work schedule) in connection with the study or to combine different types of work. At the same time, there is the wish of elder generation to half-time work in order to obtain an additional earning to pension or to be useful to society with professional work experience in a certain activity.

Table 8. Modifications dynamics the programme of work

	2014	2015	2016	2017	2019*		
					Total	Males	Females
Programme of work – total, thousands persons	1 184,9	989,1	993,7	960,8	872,4	447,4	425,0
%	100,0	100,0	100,0	100,0	100,0	100,0	100,0
including: Complete , % of total	93,9	93,8	94,1	94,6	93,7	94,7	92,8
0-20 hours, % of total	8,2	9,0	8,7	8,0	7,8	5,6	10,2
including: complete, %	69,3	69,8	69,1	72,8	59,5	61,9	58,1
21-30 hours, % of total	15,7	17,9	19,1	17,9	9,3	7,4	11,2
including: complete, %	81,6	84,4	87,2	87,0	76,0	72,8	78,4
31-39 hours, % of total	14,3	15,5	15,2	15,3	14,0	10,6	17,6
including: complete, %	95,5	96,9	95,7	95,9	94,4	89,9	97,3
40 hours, % of total	36,3	31,8	33,8	33,3	43,8	43,8	43,8
including: complete, %	99,8	99,7	99,9	99,8	99,9	99,9	99,9
41 hours and over, % of total	25,5	25,8	23,2	25,5	25,1	32,6	17,2
including: complete, %	99,5	99,6	99,6	99,0	99,8	99,8	99,7
Share of employed population, 40 hours and over, % of total	61,8	57,6	57,0	58,8	68,9	76,4	61,0

Note: * Beginning with 2019, the Labour Force Survey is realized according to the new survey plan and according to the revised definition of employment. The statistical data in 2019 are interrupted and not comparable with the previous period 2014-2018, the data for 2018 are absent.

Source: NBS RM data and authors' calculations,
http://statbank.statistica.md/PxWeb/pxweb/ro/30%20Statistica%20sociala/30%20Statistica%20sociala__03%20FM__03%20MUN2019__MUN030/MUN130100.px/?rxid=b2ff27d7-0b96-43c9-934b-42e1a2a9a774

The analysis of the distribution of employed population by duration of working week demonstrates that its share for last four years has increased by 11,3 p.p. (from 2015 to 2019) and amounted to 68,9%, including 76,4% for men and 61,0% for women or the difference of 15 p.p.

Also, the labour regime differs depending from the age of employed in labour market. Thus, the analysis demonstrates that the share of young people aged 15-24 with a work programme of up to 40 hours (0-39 hours of work) per week is 28,7%, and the elder age groups, 55-64 years, are 34,7% and 65 years and over – 55,2%¹ of the total employed in these age groups, at the same time the work programme 40 hours and over predominate for other age groups. Such analysis is important taking into account that labour legislation and, respectively, wage provide that the main basis for obtaining earning from work is dependent, first of all, from the programme of work (the guaranteed minimum wage has been established per hour, 40 hours per week or for the complete (full-time) programme of work on average 169 hours per month in real sector or 8 hours per day and 40 hours per week in budget sector).

4. The role of social and gender factors in the development the different forms of employment

In the context of the above it is important to note, that the Labour Code of the Republic of Moldova (Codul Muncii al Republicii Moldova, 2003) provides that the normal duration of work time may not exceed 40 hours per week (Part IV. Work and Rest Time, Chapter I. Work time, Articles 95-106). At the same time, for some categories of employees there are exist reduced time of work, overtime and shift work, the distribution of working hours during the week, guarantees for part-time workers (Article 97¹), as well as it is established that «Maximum daily duration of work time may not exceed 10 hours within limits the normal duration of work time of 40 hours per week» (Article 100 point (1) and point (5)). For certain types of activities/professions the working day may be established at 12 hours in accordance with the collective agreement, followed by a rest period of at minimum 24 hours (point (6), Article 100), as well as and it has been provided that the use of a reduced working week (30 hours per week) for some categories (for example, persons with severe and accented disabilities) work on a reduced regime does not infringe the rights to both remuneration and other rights provided by current legislation (Article 96, point (4)). At the same time, in the case of part-time employment (work as part of time-norm or part-time work), the wage is paid “in proportion to the time worked or according to the volume of work performed” (point (3) of Article 97). Consequently, it can be supposed that 31,1% of employed population in 2019, including 23,6% of men and 39,0% of employed women, had lower wages because their working hours were up to 40 hours (*Table nr. 8*). Analysis of working time by main age groups, it is observed that not all of those employed have decent wages taking into account the existing legislative framework. Part-time employed and their family members are most likely to fall into the category of socially vulnerable groups and are the most vulnerable to the risk of poverty, at the same time evaluating employment of labour force, the specifics of the mode of work and as the consequences of underutilizing the disponibil labour potential are a social issue

1

NBS RM.
http://statbank.statistica.md/pxweb/pxweb/ro/30%20Statistica%20sociala/30%20Statistica%20sociala__03%20FM__03%20MUN2019__MUN010/?rxid=2345d98a-890b-4459-bb1f-9b565f99b3b9

and should be taken into account in the elaboration of state policies for the socio-economic development of the country. According to the above-mentioned situation, the work age population is looking for possible ways to earn money, including through various direct, indirect methods in formal-informal sectors, through other non-standard (atypical) forms of employment or migration in search of the work place abroad. *Table nr. 9* reflects the dynamics of average monthly wage in the Republic of Moldova, including in the real and budgetary sector and by gender, the existing disparities between them, as well as the disposable income in dependence from the number of children for the years 2014-2019.

Table 9. Dynamics of average gross monthly wage (worker in economy) and disposable income of population

	2014	2015	2016	2017	2018	2019
Average gross monthly wage – total, lei	4089,7	4538,4	4997,8	5587,4	6268,0	7233,7
% compared to previous year	111,3	111,0	110,1	111,8	118,6	115,4
Consumer Price Index, %	105,1	109,7	106,4	106,6	103,0	104,8
Real average gross monthly wage (a worker), %	105,6	101,2	103,5	104,9	115,1	110,1
Average gross monthly wage, budget sector, lei	3699,2	4143,4	4382,0	4975,9	5729,9	6664,4
% compared to previous year	111,1	112,0	105,8	113,6	115,2	116,3
Average gross monthly wage, real sector, lei	4238,8	4692,3	5237,2	5815,5	6459,4	7420,4
% compared to previous year	111,4	110,7	111,6	111,0	111,1	114,9
Ratio between wages in budget and real sector (budget wage as % of real wage), %	87,3	88,3	83,7	85,6	88,7	89,8
Average monthly wage, males, lei	4374,9	4881,3	5414,4	6017,0	6779,4	7808,0
Average monthly wage, females, lei	3831,8	4235,2	4631,4	5204,0	5800,7	6709,8
Gender gap in wage, p.p.	12,4	13,2	14,5	13,5	14,4	14,1
Average disposable incomes of population - total, RM, lei	1735,2	1951,8	2051,8	2208,5	2357,1	2880,6*
Real disposable incomes index, %	100,0	102,5	98,8	101,0	103,6	116,6
including: by number of children in household						
1 child	1741,4	1946,6	1905,9	2108,7	2325,3	2939,2
% compared to the average on RM	100,4	99,7	92,9	95,5	98,6	102,0
2 children	1353,4	1610,1	1688,6	1148,7	2229,2	2360,6
% compared to the average on RM	78,0	82,7	82,3	52,0	94,6	81,9
3 children and more	1025,6	1148,7	1143,4	1246,2	1384,1	1679,6
% compared to the average on RM	59,1	58,9	55,7	56,4	59,5	58,3
without children	2011,4	2229,2	2419,6	2618,2	2711,4	3320,4
% compared to the average on RM	115,9	114,2	117,9	118,6	115,0	115,3
Subsistence level (living wage) of working age population, lei	1726,8	1842,2	1914,7	1984,5	2016,1	2194,0
Subsistence level (living wage) of retirement pensioners, lei	1343,7	1437,4	1494,8	1547,5	1574,2	1707,4
Absolute poverty rate, %	29,5	25,4	26,4	27,7	23,0	25,2
Extreme poverty rate, %	12,8	10,5	10,4	11,0	8,7	10,7

Note: * Beginning with 2019, the methodology of Household Budget Survey (HBS) was modified, a new survey plan was applied based on information of Population and Housing Census 2014 (PHC 2014), there were some changes in the questionnaire.

Source: NBS RM data and authors' calculations, www.statistica.gov.md

The wage being the main source for the most part of employed population, is regulated by the Remuneration Law (Legea salarizarii, 2002) for real sector employed, according to which in the Republic of Moldova the *guaranteed minimum amount of wage* in real sector was established, calculated on the basis the average duration of work time of

169 hours per month, as well as re-examine annually taking into account the growth in labour productivity and the Consumer Price Index. Thus, since with May 1, 2019, the *guaranteed minimum amount of wage* in the real sector, indifferent to the type of property of economic agent, was established at 2775 lei per month or 16,42 lei per hour based on the complete programme of work in average of 169 hours per month [16, 17]. For employed in budget sector, the *minimum amount of wage* established in the country by Government Decision is used taking into account the financial possibilities of the budget and this amount is a basis for the first category of tariff salary, as well as is being regulated through the new legislative framework beginning with 2018 (Legea nr. 270, 2018). However, the state policy in this field is proceeded from the legislative framework based on two wage systems and the increase of wages of some categories of employed in budgetary sector has the fragmentary character that depends on the budgetary financial sources. This explains why the *wage gap* between the wages of real and budgetary sector from 16,3% (2016) to 10,2% (2019) remains in force for the present (*Table nr. 9*).

In 2019, compared to the previous year, the wages situation of employed has improved somewhat - if in 2018 they had wages up to 2000,0 lei 6,1%, then in 2019 the share of employed population, which received wages up to 2000,0 lei, constituted only 0,7%, what was even less than the subsistence level. At the same time, taking into account that the social standard of human survival or the subsistence level for working age population in 2019 was at level of 2194,0 lei, 4,4% of employed had wages up to 2500,0 lei, including art, recreation and leisure activities of 13,0%, education of 12,7%, real estate transactions of 6,6%, health and social assistance of 5,1%, agriculture, forestry and fisheries of 4,9% etc. The highest wages, exceeding 10,000.0 thousands lei, are for employees in the field of production and supply of electricity and heat, gas, hot water and air conditioning (48,1%), financial and insurance activities (41,2%), public administration and defense; obligatory social insurance (23,7%) and some other categories of employed¹.

Analysis of incomes obtained by households is observed that the best situation is for employees, the main source of income whose (77,6%) comes from *wage activity*, the average monthly income of person in 2019 exceeded the average monthly income in Moldova by 20, 7% and constitutes 197,9 dollars. The most unfavorable situation in terms of monthly income per capita is observed in the households of *self-employed workers in agriculture (farmers)*, this income accounted for only 63,5% of the average monthly income in the Republic of Moldova and is 104 dollars per month for a person, having its main source - *individual agricultural activity* (50,1%), as well as to a largely degree exposed to social risks of being poor due to the impact of internal and external socio-economic factors, a lack of access to permanent markets sales, natural factors – hazards (drought).

Table 10. Characteristic and structure of disposable incomes by socio-economic status of household (average month per person, lei)

	Farmers	Employed in agricultural sector	Employed in non-agricultural sector	Entrepreneurs	Pensioners	Others categories	Total, RM, lei
Disposable incomes, 2017, lei	1 265,6	1 689,5	2 722,6	3 635,4	1 918,0	2 245,4	2 208,5
Disposable incomes, 2018, lei inclusive:	1 400,5	1 897,7	2 962,3	3 121,4	2 065,5	2 182,4	2 357,1
% compared to previous year	110,7	112,3	108,8	85,9	107,7	97,2	106,7

¹

NBS

RM.

http://statbank.statistica.md/pxweb/pxweb/ro/30%20Statistica%20sociala/30%20Statistica%20sociala__03%20FM__SAL025/?rxid=4eec3dd5-755a-4e4e-92de-3dc2d391f3a9

Real disposable income index, %	107,4	109,0	105,6	83,4	104,5	94,3	103,5
- ratio to subsistence level, %*	69,5	94,1	146,9	154,8	131,2	108,2	124,6
Disposable incomes, 2018 , US dollars**	83,3	112,9	176,3	185,8	122,9	129,9	140,3
Anul 2019	Employee es	Self- employed workers in agriculture (farmers)	Self- employed in non- agricultural activities	Pensio- ners	Others	Total, RM, lei	
Disposable incomes – total, lei	3 478,1	1 828,2	2 837,4	2 443,6	2 399,3	2 880,6	
- ratio to subsistence level, %*	158,5	83,3	129,3	143,1	109,4	141,8	
Ratio of disposable income of respective category to disposable income – total (RM), %	120,7	63,5	98,5	84,8	83,3	-	
Disposable incomes, 2018 , US dollars**	197,9	104,0	161,4	139,0	136,5	163,9	

Note: * Average subsistence level in 2018 amounted to 1891,0 lei per month, including for working age population – 2016,1 lei and retirement pensioners – 1574,2 lei, respectively, in 2019 - of 2031,2 lei per month, including for working age population - 2 194,0 lei and retirement pensioners - 1 707,4 lei.

** Calculated by the authors according to the exchange rate of 16,8031 lei/US dollar in 2018 and 17,751 lei/US dollar in 2019, NBM, national accounts, www.statistica.gov.md.

Source: NBS RM data and authors' calculations, www.statistica.gov.md

According to NBS investigations, in 2019 the *absolute poverty line* was 2095,1 lei (in 2018 – 1998,4 lei), and *extreme poverty* was registered at the level of 1689,7 lei (in 2018 – 1611,7 lei) on average per month per person¹. Thus, practically, the average monthly disposable income per person in households with the status of farmers (1828,2 lei) or 12,7% less than the *absolute poverty line*, which does not allow to insure the food security of family members. From the mentioned NBS's results for 2019 it is observed that the most disadvantaged are the households in which the head works as a worker in agricultural sector (absolute poverty rate 43,2%), the self-employed (38,4%) and households head as retirement pensioner (38,3%). The average amount of retirement pension in agricultural sector on 01.01.2020 constituted 1447,4 lei or at a level 14,3% below the *extreme poverty line*, in the non-agricultural sector its amount was 2,5% less than the *absolute poverty level*. Moreover, the average amount of retirement pension by sector was also 12% lower than *absolute poverty*, the ratio between retirement pension in agricultural and non-agricultural sector remains at 29,1% and the gap between women and men is 20,7% less on 01.01.2020.

The created situation obliges the working age population to search for additional sources of income, including based on a combination of different types and forms of employment, including the development of entrepreneurial business out of a wish to get more earnings (BNS, 2020). This motive is predominant for both sexes (39,5% of entrepreneurs start or continue business, and 23,7% have run a business because is the realization of their dream).

The results of statistical research on the situation of women and men in the Republic of Moldova in various socio-economic fields (BNS, 2018) and the portrait of women and men was developed on the total population highlighting important gender issues in different spheres. Thus, it was noted that in recent years, practically, the share of women (49,7%) and men (50,3%) in the employed population has been equaled with gender employment rate gap by 6,7 p.p. or for women – 41,4% and for men – 48,1%. The

¹ NBS RM. Poverty Level in the Republic of Moldova 2019, determined according to the methodological changes applied in Household Budget Survey (HBS) in 2019 and their impact on poverty indicators, www.statistica.gov.md.

main cause of given situation is the presence of children, in particular, under the age of 16: for example, the employment rate of women aged 25-49 with at least one child of that age was 53,4%, and for women without children at this age the employment rate was 59,5%. At the same time, researchs observe that it is important, that **women prefer remunerated activity and formal work place compared to men**: 63,% of employed women were trained in paid activities (wage activity), but for employed men this indicator was at 56,2%. The predominant field of economic activity of women is services sector (share of employed women of 59,0% and men of 41,0%), health and social assistance (79,8%), education (78,0%), hotels and restaurants (69,2%) and trade (55,8%). The share of employed women is lower in agricultural sector (45,5%), industry (44,4%) and construction (6,9%). In non-employees, including in the *self-employed category*, men predominated (57,9%), at the same time the higher share of women was registered in the *category of unpaid family workers* (73,4%). In informal employment, the share of women was 36,7% and men, respectively, of 42,7%.

At the same time, it can be mention another important factor - women had lower wage than men by 14,4% or the average wage of women constituted 85,6% of that of men, including the biggest discrepancy in given sphere were in *financial activities, information and communications* (32,5%), *industry* (20,9%), *health and social assistance* (18,6%), *agriculture, forestry and fisheries* (11,8%) etc. (or from 1,3% in education to 38% in *financial and insurance activities*). Such situation is the result of impact the multitude of factors, including socio-economic status, qualification level, skills, profession, etc. At the same time, the results of research show that women were involved in income-generating activities less than men. Statistical data demonstrate that every third woman (32,1%) aged 18 and over had social benefits (including pensions) as the main source of income compared to every fifth man (21,9%). Moreover, for 60% of men aged 18 and over the main source of income was *individual and wage activity* (for women this indicator was 46,6%) (BNS, 2018).

Taking all the above into account, causes and motives for participation of the person capable of economic activity depends on some circumstances in which this person is. The same can be seen for the elderly.

Population ageing and employment

The analysis of the elderly employment, including in the transitional age group of 45-54 years, by type of economic activity showed that most of the elderly population is employed in agriculture, forestry and fisheries, industry (including 65 years and over), construction, transport and storage, information and communications, other activities, the budgetary sphere - public administration, education, health and social assistance, as well as the increase of the elderly workforce and the age category 45- 54 years (*Table nr. 11*). The 2019 data reflect the actual situation due to NBS RM's change in research methodology.

Table 11. Structure of employed population aged 45 and over by main types of economic activities, RM, % of total employed population*

	2014	2015	2016	2017	2018	2019**	Difference 2018 and 2014, p.p.	Difference 2019 and 2018, p.p.
Total, RM	100,0	100,0	100,0	100,0	100,0	100,0	-	-
45-54 years	25,2	24,5	23,6	23,3	22,4	22,8	-2,8	0,4
55-64 years	16,9	17,2	17,9	18,9	19,3	18,2	2,4	-1,1
65 years and over	2,9	3,5	4,2	4,6	6,3	3,2	3,4	-3,1
Agriculture, forestry and fisheries:								
45-54 years	27,1	24,6	24,3	24,4	22,1	27,0	5,0	4,9
55-64 years	21,4	21,5	22,2	24,2	25,1	24,5	3,7	-0,6
65 years and over	5,9	7,2	8,4	9,1	13,3	5,9	7,4	-7,4

Industry:								
45-54 years	23,6	22,8	23,0	21,8	21,9	23,4	-1,7	1,5
55-64 years	14,5	15,6	15,9	17,3	16,7	16,5	-2,2	-0,2
65 years and over	0,9	1,4	1,5	1,6	1,1	2,1	0,2	1,0
Construction:								
45-54 years	19,0	17,5	17,8	18,9	18,2	19,5	-0,8	1,3
55-64 years	11,9	9,5	12,0	17,1	13,8	10,9	1,9	-2,9
65 years and over	0,8	0,6	0,8	0,2	1,1	1,3	0,3	0,2
Wholesale and retail trade; Accommodation and public catering activities:								
45-54 years	22,3	23,2	19,8	22,4	22,5	17,6	0,2	-4,9
55-64 years	10,0	10,0	11,3	10,6	11,6	12,4	1,6	0,8
65 years and over	0,8	0,6	0,8	1,4	1,0	1,6	0,2	0,6
Transport and storage, Information and communication								
45-54 years	27,2	25,6	23,3	22,1	22,8	20,0	-4,4	-2,8
55-64 years	14,7	17,6	16,9	14,6	15,4	15,0	-0,7	-0,4
65 years and over	0,8	0,7	0,8	2,2	1,1	2,2	0,3	1,1
Public administration, Education, Health and social assistance:								
45-54 years	28,0	28,6	29,0	26,8	25,7	25,8	-2,3	-0,1
55-64 years	19,6	18,8	19,5	19,9	19,3	22,0	-0,3	2,7
65 years and over	2,1	2,7	3,1	3,6	3,1	3,5	1,0	0,4
Other activities:								
45-54 years	21,9	22,8	19,7	16,9	19,4	20,2	-2,5	0,8
55-64 years	14,4	15,0	14,8	16,3	14,1	16,9	-0,3	2,8
65 years and over	2,4	2,2	2,2	2,7	2,5	3,3	0,1	0,8

Note: * 2014-2019, for estimation of the research results the number of population with usual residence was used.

** In 2019, the new statistical research methodology was applied.

Source: Authors' calculations on the basis of NBS RM data,

<https://statistica.gov.md/category.php?l=ro&idc=107&>

The statistical data¹ show, that as a rule, the employed population in groups older than 45 years has the labour regime of up to 40 hours. For example, in 2019 the employed population in age group 45-54 years, whose share was 22,8% of employed population, of which 53,5% worked with the labour regime up to 40 hours, respectively, group age 55-64 years, taking into account the share of 18,2% of employed population, of which 65,6% worked with the labour regime up to 40 hours, including of which 43,0% with the regime of 0-30 hours per week. Such situation obliges people to search for ways to improve their material conditions, including using work on combine, informal work places, going abroad in search of a work place, etc., as well as employment in the informal sector is the way to solve given issue or to be involved in the field of work.

5. Development of the informal sector

The employment tendency of population able to work in formal and informal work places had a sinusoidal curve. The number of informal places being increasing in 2016 and 2018, and in 2019 there is the sharp decrease due to the application of the new Research Methodology by the NBS, including and the employed population, excluded persons, who are occupied in production of agricultural products for their self-consumption in difference

¹NBS RM,

http://statbank.statistica.md/pxweb/pxweb/ro/30%20Statistica%20sociala/30%20Statistica%20sociala__03%20FM__03%20MUN2019__MUN010/?rxid=2345d98a-890b-4459-bb1f-9b565f99b3b9

of the number of hours worked ¹, which also contributed to the change in the structure of employed population on some economic activities, especially in agriculture. The largest share of informal work places was accumulated in agriculture, forestry and fisheries and in construction and other activities, and the lowest was observed in the field of public administration, education, health and social assistance. In industry, transport and storage, information and communications, since 2016 the share of informal work places has tended to decrease (*Table nr. 12*).

Table 12. Dynamics of relation ratio between the employed in the formal and informal sectors*

	2014	2015	2016	2017	2018	2019**
Employed population, thousands of persons	981,5	989,1	993,7	960,8	988,5	872,4
Share of formal work places, % of total	66,5	63,4	61,7	63,0	60,3	76,9
Share of informal work places, % of total	33,5	36,6	38,3	37,0	39,7	23,1
Share of informal work places, % of total by economic activities						
Agriculture, forestry and fisheries	77,4	82,5	82,3	82,5	82,9	64,3
Industry	6,3	6,0	6,4	5,0	4,8	5,6
Construction	59,3	62,6	58,6	60,0	61,3	64,0
Wholesale and retail trade; Accommodation and public catering activities	15,8	15,6	16,0	15,3	12,8	11,7
Transport and storage; Information and communication	10,4	11,7	14,6	9,4	9,0	9,0
Public administration, Education, Health and social assistance	0,3	0,5	0,6	0,3	0,6	0,2
Other activities	14,3	14,3	15,7	17,3	18,4	16,1

Note: * 2014-2019, the data were calculated based on the population with the usual residence.

** 2019 data were interrupted due to the application of the new research methodology by the NBS RM.

Source: NBS RM data and authors' calculations, www.statistica.md, <https://statistica.gov.md/category.php?l=ro&idc=107&>

The analysis of those employed in informal work places by the main age groups demonstrates that in the period 2014-2018 there is the tendency of increasing the share of informal employment of population aged 65 and over by 7,0 p.p. and 55-64 age group by 3,6 p.p.. At the same time the decreasing tendency of share of employed persons in other age groups was accentuated, including 15-24 years (by 1,9 p.p.), 25- 34 years (with 1,3 p.p.), 35-44 years (with 4,0 p.p.) and 45-54 years (with 3,4 p.p.). In 2019, the largest share of population in informal places belongs to population in age group of 25-34 years (24,8%) and in age group of 45-54 years (23,1%), the population in age group pre- and pensioners or 55-64 years was placed on the fourth place of those employed in this sphere (*Table nr. 13*).

Table 13. Structure of population employed in informal work places by main age groups
(% of total informal work places)*

¹ Resolution I. Resolution concerning statistics of work, employment and labor underutilization, adopted by the 19th International Conference of Labour Statisticians" in 2013, http://www.ilo.org/global/statistics-and-databases/meetings-and-events/international-conference-of-labour-statisticians/_/19/WCMS_230304/lang--en/index.htm; NBS RM, Methodology of Labour Force Survey, (Metodologia Anchetei asupra forței de muncă în gospodărie), 2019, https://statistica.gov.md/public/files/Metadate/alte/Methodology_AFM_2019.pdf.

	2014	2015	2016	2017	2018	2019
The population employed in total informal work places including the share by main age groups:	100,0	100,0	100,0	100,0	100,0	100,0
15-24 years	9,6	9,8	8,4	7,7	7,7	7,8
25-34 years	20,2	20,9	20,7	18,8	18,9	24,8
35-44 years	23,9	23,2	23,2	22,4	19,9	21,7
45-54 years	23,7	21,9	21,8	22,5	20,3	23,1
55-64 years	17,2	17,6	18,2	20,2	20,8	17,5
65 years and over	5,4	6,6	7,7	8,4	12,4	5,1

Note: * 2014-2019, the data were calculated based on the population with the usual residence.

Source: Authors' calculations on the basis of NBS RM data, www.statistica.md; <https://statistica.gov.md/category.php?l=ro&idc=107&>

The portrait of informal sector workers will be incomplete if their socio-economic or professional status is not reflected and if there is no clarity about the affiliation of the legal firms (organizations) type in which they work (*Table nr. 14*).

Table 14. Evolution of informally employed population by professional status, %

	2014	2015	2016	2017	2018	2019
Employed population, total (RM) including:	100,0	100,0	100,0	100,0	100,0	100,0
Employees, RM, % of total employed population of which working at:	66,3	63,7	61,0	62,9	59,6	77,8
<i>Formal work place, % of total employees</i>	90,7	91,1	91,8	92,7	92,4	92,3
<i>Informal work place, % of total employees including is occupied at:</i>	9,3	8,9	8,2	7,3	7,6	7,7
Formal sector enterprises, informal place	82,1	87,5	84,4	85,8	78,8	79,6
Informal sector enterprises, informal place	13,3	7,6	9,6	8,1	14,7	15,1
Households which employees is occupied, informal place	4,6	4,9	6,0	6,1	6,5	5,3
Self-employed, RM, % of the total employed population of which working at:	30,6	31,7	33,5	32,7	35,7	17,6
<i>Formal work place, % of total employees</i>	18,6	15,3	15,5	13,4	13,8	26,9
<i>Informal work place, % of total employees including is occupied at:</i>	81,4	84,7	84,5	86,6	86,2	73,1
Formal sector enterprises, informal place	54,3	46,5	42,6	41,0	36,2	100,0
Informal sector enterprises, informal place	45,7	53,5	57,4	59,0	63,8	-
Households which employees is occupied, informal place	-	0,0	-	-	0,0	-
Unpaid family workers, RM, % of the total employed population of which working at:	2,4	4,0	4,9	4,1	4,4	4,2
<i>Formal work place, % of total employees</i>	-	-	-	-	-	-
<i>Informal work place, % of total employees</i>	100,0	100,0	100,0	100,0	100,0	100,0

including is occupied at:						
Formal sector enterprises, informal place	19,2	24,81	18,6	15,6	32,5	28,2
Informal sector enterprises, informal place	80,8	74,93	81,4	84,4	67,5	71,8
Households which employees is occupied, informal place	-	0,26	-	-	-	-
Patrons (employers), members of the cooperative , % of the total employed population in the Republic of Moldova of which working at:	0,7	0,6	0,6	0,3	0,3	0,4
Formal work place, % of total employees	100,0	100,0	98,2	100,0	100,0	94,4
Informal work place, % of total employees	-	-	1,8	-	-	5,6
including is occupied at:						
Formal sector enterprises, informal place	100,0	100,0	98,2	100,0	100,0	94,4
Informal sector enterprises, informal place	-	-	1,8	-	-	5,6

Source: Authors' calculations on the basis of NBS RM data, www.statistica.md; <https://statistica.gov.md/category.php?l=ro&idc=107&>

Thus, from the data analysis (*Table nr. 14*) it is observed that the major share of employed population constituted employees, whose share in 2019 reached 77,8%, who prefer work under legal conditions, officially concluded contracts or formal employment (at the level of 92,0% and over during the last 4 years have been activated in formal work places). At the same time, 7,7% of total employees have an informal work places, of which 79,6% are *informal work places at enterprises of formal sector* and which are increasing by 0,8 p.p. compared to the previous year, as well as were increasing compared to 2018, by 0,4 p.p., informal work places occupied by employees in formal sector enterprises. The second group of those employed informally refers to *self-employed workers* whose share constituted 17,6% of employed population, decreasing by 18,1 p.p. compared to 2018 (due to the change of research methodology by NBS), of which 73,1% work in informal places in informal sector. At the same time, *unpaid family workers* (4,2% of the employed population) refers to informal sector. The structure of formally or informally employed population is reflected in *Table nr. 14* and it can be observe that, in principle, preference is given to the official format or formal work places, when the choice of employment form.

The development of the informal sector takes place because there are causes that contribute to it, including the necessity to care for children, elderly or sick family members, the disabled, the search for work due to age dismissal, reorganization/optimization of organizational structure of the enterprise/organization (staff reduction) or other problems as a result of which the person is out of work in a labour regime established by the existing legislation framework or find a work place. However, 22,6% of employed persons aged 20-49 are employed informally and of which 32,4% are persons with at least one preschool child, including 76,2% of these persons working to informal sector enterprises. At the same time, it is interesting that 71,2% of these informal employees who have at least one preschooler are men and only 28,8%, respectively, are women. At the same time, the analysis of the informally employed population by the nature of work place and the organizational-juridical form for 2019 shows that 36,0% are occupied in the auxiliary or own household, 32,8% of individual work activity, 14,4% to an individual agricultural enterprise (peasant household), 9,2% to an enterprise, organization, institution (with the right of legal person) and 6,2% to individual enterprises,

individual advocate or notary office (without the right of a juridical person) and other as employed in private households of the cities according to the labour legislation. 47% of employees in the informal sector work in agriculture, forestry and fisheries, 18,7% - in wholesale and retail trade, accommodation and catering, 14,5% - in construction, 11,8% - for other activities, 7,8% - for industry, etc. (BNS, 2020).

Taking into account, that 77,4% (*Table nr. 13*) of those employed are up to 55 years of age or, practically, of productive age, informal employment does not have any guarantees of employment on a full and stable work programme for employed. Moreover, for this sector there are specific ways of employment in the absence of employment contract, the payment of social and medical contributions, the granting of labour leave, etc. All this has a negative impact on workers, contributes to increased social risks of being unemployed or in category of poor, as well as loss of health. Some characteristics related to the activity of employees in field of informal employment are reflected in *Table nr. 15*.

Table 15. Specific conditions for the activity of employees in informal sector

	2014	2015	2016	2017	2018	2019
Employees employed informally-total, thousands persons	72,1	68,0	62,2	56,2	56,9	52,4
% of total employees	9,0	8,6	8,1	7,1	7,3	7,7
Social contributions not paid by the total employer (unpaid social contributions), thousands of pers.	66,1	59,1	54,3	49,0	51,2	49,2
% of total employees in informal sector	91,7	86,9	87,3	87,2	90,0	93,9
including those who are employed at:						
Formal sector enterprises, informal employment, thousands of pers.	53,4	50,1	44,4	41,0	39,4	38,5
% of total unpaid contributions	80,8	84,8	81,7	83,6	77,0	78,3
Informal sector enterprises, thousands of pers.	9,5	5,5	6,5	4,7	8,0	7,9
% of total unpaid contributions	14,4	9,3	11,9	9,5	15,6	16,1
Households that hire paid domestic workers, thousands pers.	3,3	3,5	3,5	3,4	3,8	0,0
% of total unpaid contributions	5,0	5,9	6,4	6,9	7,4	0,0
Hiring procedures employees, including by:						
- employment contract, % of total	8,3	13,1	12,7	13,0	10,2	6,1
- oral agreement, % of total	91,7	86,9	87,3	87,0	89,8	93,9
Permanence of employment, % of total						
- indeterminate duration	54,4	63,4	66,1	66,0	59,1	52,7
- fixed term	45,6	36,6	33,9	34,0	40,9	47,3
Annual paid labour leave, % of total:						
- benefits	2,8	0,0	0,0	0,0	0,0	0,0
- does not benefit	97,2	98,4	98,7	98,2	98,9	98,1
Paid sick leave, % of total:						
- benefits	2,4	5,9	0,0	0,0	0,0	0,0
- does not benefit	97,6	94,1	95,5	95,2	96,0	98,7

Source: Authors' calculations and NBS RM data, Labour force. Employment and unemployment for 2015-2020 (Forța de muncă. Ocuparea și șomaj pentru 2015-2020), <https://statistica.gov.md/pageview.php?l=ro&idc=263&id=2204>

Thus, in the last 4 years (2015-2019) there has been a tendency to increase the share of employees for whom employers do not pay social insurance contributions and by 2019 this share has reached about 94% constituting more than 6,6 p.p. than in 2015 and, respectively, by 3,9 p.p. the previous year. This creates social risks for both these people and their families, including the chance of being unemployed and as a consequence, will fall in category of poor, as well as in nonworking age will be among those who do not have the amount of the pension sufficient to survive or social services guaranteed by the state.

Such the situation also refers to those who do not have concluded employment contracts and work by oral agreement, the share of which was 93,9%, increasing by 4,1 p.p. compared to the previous year and by 6,6 p.p. compared to 2015 or this category of employees has not legitimate right in labour sphere, pay for work, rest, etc. provided by the current labour legislation framework. At the same time, employees involved in informal activity do not benefit (nu beneficiază) from paid sick leave (in 2019 the share of these persons reached the level of 98,7%, increasing by 4,6 p.p. compared to 2015 and 2,7 p.p. compared to the previous year), as well as paid annual labour leave.

Informal employment has a negative impact not only on employees hiring in this sector, but also on the reliability and stability of the existing social insurance system. This refers to the losses of the State Social Insurance Budget (SSIB) due to the reduction of possible taxpayers because employers in informal sector do not pay these contributions (Table nr. 16), including the payment of obligatory social insurance contributions by individual and juridical persons. The calculations of the State Social Insurance Budget (SSIB) losses due to non-payment of social contributions from the remuneration fund of employees hiring "by oral agreement" (Table nr. 16) demonstrated that the amount of the above-mentioned losses tended to increase in 2018 by 20,7% compared to the previous year and 12,1% in 2019 compared to 2018 even in conditions of reduction of employees by 7,9% compared to the previous year.

Table 16. Possible amount to supplement the SSIB in the case of the legitimate activity of employees in informal sector under the conditions of national labour legislation

Name of indicators:	2017*	2018*	2019**	Increase/ Decrease, 2018/ 2017	Difference +/- in absolute terms	Increase/ Decrease, 2019/ 2018	Difference +/- in absolute terms
Informally employees, thousands persons	56,2	56,9	52,4	101,2	0,7	92,1	-4,5
Population hiring by "oral agreement", thousands of persons including by economic activities:	48,9	51,1	49,2	104,5	2,2	96,3	-1,9
Agriculture and fisheries	19,6	24,1	23,8	123,0	4,5	98,8	-0,3
Industry	4,0	3,5	3,1	87,5	-0,5	88,6	-0,4
Construction	0,0	3,7	7,5		-	202,7	3,8
Wholesale and retail trade; Accommodation and public catering activities	12,9	10,9	9,0	84,5	-2,0	82,6	-1,9
Transport and storage; Information and communications	0,0	0,0	-	-	-	-	-
Public Administration; Education; Health and social assistance	0,0	0,0	0,0	-	-	-	-
Other activities - total	8,0	7,8	5,6	97,5	-0,2	71,8	-2,2
Employees for whom social contributions were not paid by the employer, thousands persons	49,0	51,2	49,2	104,5	2,2	96,1	-2,0
The amount of possible losses at SSIB from non-payment of social contributions of employees hiring "by oral agreement", thousands lei	1309208,87	1580748,462	1772199,312	120,7	+271539,59	112,1	+191450,85

* For estimation the research results the number of resident population was used.

** For estimation the research results the number of usual resident population was used, the research methodology was modified.

Source: NBS RM data and authors' calculations,
<https://statistica.gov.md/pageview.php?l=ro&idc=263&id=2204>

Taking into account that, annually, transfers from the State Budget are made to cover the deficit of the State Social Insurance Budget, supplementing SSIB revenues from employees hired "by oral agreement" will contribute improve financial discipline and financial opportunities to ensure requirements of social benefits, to increase the financial stability of this budget. The calculation took into account employees excluding other categories of those employed in informal sector due to lack of data (self-employed, unpaid family workers, etc.) due to the fact, that there is no evidence of them on the payment of social contributions. At the same time, having the mentioned data, it is possible to calculate the amount lost by the health insurance budget from the non-payment of medical contributions both by the person hired to work in informal sector and by the employer.

6. Conclusions

The transition to market relations and the transformation of economy have contributed to some fundamental changes in socio-economic life, including the formation of new labour relations between employers and employees, dismissals, worsening the standards of living, increasing social tension, intensification labour migration processes, etc. All these processes have also led to labour market changes that are no exception. The study of world experience shows that the development of efficient and full employment system of work age population depends from the level of development of its forms in actual conditions, as well as from the possibility of adapting this population to labour market taking into account its structure. Previously, strict (rigid) regulation of employment or the standard form of employment (full employment regime, unlimited employment agreement, etc. established by law) and the constant attraction of labour force in the socio-economic life have been used. In actual conditions of market development, the decline of the number and ageing of population, labour migration flows there has been a tendency of development in time and space of new or non-standard forms, in particular, the informal sector and informal work places. At present, the latter have become the feature of labour market in the Republic of Moldova.

In the Republic of Moldova, the emergence of non-standard employment was related to the development processes of various forms of property. Thus, the share of population occupied in the private sector increased by 66-69% in 2014-2018, and decreasing to 60,7% in 2019. The share of employed population with the labour regime of 40 hours and over increased by 11,3 p.p. (from 2015 to 2019) and constituted 68,9%, for men 76,4% and for women 61,0% or the difference was by 15 p.p. The labour regime differs in dependence by gender and age of employed persons, as well as the employment rate by gender differs by 6,7 p.p. or for women – 41,4% and for men – 48,1%.

In the conditions of informal employment, as a rule, employees do not have the guarantees for a complete and stable work programme and, finally, there are losses of state social and medical insurance budgets and their financial instability. The calculations regarding the losses of the *State Social Insurance Budget* (SSIB) due to the non-payment of the social contributions from the labour remuneration fund of workers hiring "by oral agreement" (Table nr. 19) show that the amount of losses tended to increase in 2018 by 20,7 % and in 2019 by 12,1% respectively, compared to the previous year.

In this sense for the purpose of stable and sustainable socio-economic development, the important task will be to efficiently combine different forms of employment for ensure the effective employment of existing potential of labour force. It should be mentioned that the different forms of employment are used quite widely in international practice which allows to ensure the highest possible level of employment of the existing potential of labour force (Conventia Organizatiei Internationale a Muncii, 1988).

Finally, can be mention that a characteristic for the Republic of Moldova is the underutilization of labour force potential, including its underemployment in visible or invisible forms, the spread of employment of labour force in informal places and in informal sector, a low level of economic activity of work age population. In this sence, new methods are need to quantify the effectiveness of the avaiability and use of the real potential of labour force.

With the purpose to improve the labour market situation, growth the level of formal employment and the financial stability of the social protection system of population is proposed:

- reactualization of strategies and programs for socio-economic development and employment of labour force with purpose to developing the healthy labour markets, equilibrium of labour, as well as with at least the decent income and state protection against social risk;
- development of remuneration system, including the participation of hired persons in the distribution of profits, promotion of the non-tariff wage system or other systems relevant to the conditions of socio-economic development of the country and various forms of employment;
- improving the legal framework of the social insurance system taking into account to contributing to modification in the pension and social benefits system in dependence on the individual contributions real paid (effectively) by employed person, as well as the social protection system for those who work seasonal, have a short period of time or fluctuations, etc.;
- promoting the system of state supervision (by intensification and empowering the activity of the Labour Inspectorate) on the obligatory conclusion of individual employment contracts, respect for the rights of hired persons on healthy working conditions, rest, norms established by the legal framework of social protection (including realization of social contributions and state medical services by the employer and employees), strengthening sanctions and penalties for non-compliance with the legal framework and the provisions of the Fiscal Code;
- simplification and reduction of costs and procedures of administrative structures, transparency and accessibility of tax systems, ensuring social protection, application of benefits or privileges for employees who have received earning lower of the subsistence level amount;
- research of labour supply and demand, taking into account demographic forecasts with puspose to elaboration scientifically argued policies for effective use of existing potential in labour market and to ensure the fullest possible level of employment the work age population for the stable and sustainable development of the country;
- elaboration of the Labour Code of the Republic of Moldova in new edition (Codul Muncii al Republicii Moldova, 2003), in order to comply with EU international standards;
- increasing the role of social dialogue in the process of transformation informal work into formal;
- elaboration of criteria and efficient methods of statistical evidence of the impact from non-standard forms of employment;
- promoting training programs for persons occupied in informal work places, access to credit for their own business (self-employment) through the creation of small and medium enterprises (SMEs), providing benefits that can be accessed by legally employed persons, including providing financial support, food, hire, protection and respect for rights or other privileges.

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SUSTAINABILITY AND COMPETITIVENESS AT THE GLOBAL LEVEL: AN ANALYSIS OF THE TOP 10 COUNTRIES IN THE PERIOD 2018-2020

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Abstract: Sustainability and competitiveness are key drivers in nowadays economies, and the experts turn their attention towards this forward-thinking approach, vital for long-term and healthy economic and social development that can be expressed through sustainable competitiveness. The purpose of the paper is to highlight the situation specific to the top 10 countries in the world in terms of sustainability and competitiveness comprised within sustainable competitiveness for the period 2018-2020. From this standpoint, the methodology used is based on the research of secondary sources such as articles and reports. The findings show a commanding position of the Nordic countries and a true domination of the European ones.

Key words: sustainability, competitiveness, country, rank, Nordic countries.

JEL Classification: F00, Q01.

1. Introduction

Every country should be able to have the necessary framework and provide organizations, companies, individuals and other stakeholders to competitive in a sustainable manner, whilst protecting “the environment and social welfare” (Thore and Tarverdyan, 2016). It is of utmost importance to understand that a nation’s economic performance is not the complete picture of competitiveness but it also encompasses environmental and social performance in this pursuit of providing a high level of wellbeing (Herciu and Ogorean, 2014) and sustainability is key as it is related to time, territory, people and resources (Toma, et al., 2016) and it is based on society, economy and environment (Strange and Bayley, 2008). The competitiveness concept is aimed at “capturing the economic development process” and it is a required condition in terms of improving the living standard (Schwab, 2013) of a nation’s citizens on a “sustainable basis” and also providing them with access to jobs (Balkyte and Tvaronavičiene, 2010); the concept’s promotion has been a central goal belonging to the economic policy of the countries around the world (Despotovic et al., 2016) as it ensures “a country’s sustainable position in a competitive environment” (Širá et al., 2020).

The aim of the paper is to portray the situation of the top ten countries in the world based on their sustainability and competitiveness for the 2018-2020 period, using the data provided by the Swiss-Korean joint venture and think tank, SolAbility. The other sections of the paper are structured as follows: in the second section the focus is put on the theoretical background; the third section is aimed at the used research methodology; in the fourth section the findings of the research are presented and the paper ends with conclusions.

2. Theoretical background

Sustainability, sustainable development and competitiveness have been credited to have positive effects over the activities of companies and, generally, of nations (Toma and

Grădinaru, 2017; Toma and Grădinaru, 2018) that should pay attention to the optimal use of resources and capabilities so as to create conditions for long term development, freedom, prosperity and the security of citizens (Grădinaru and Toma, 2018; Toma, 2019).

The paper is focused on the ranking created by SolAbility entitled The Global Sustainable Competitiveness Index specific to the 2018-2020 period. This is an annual ranking used to measure the competitiveness of nations (SolAbility, 2020) and is currently comprised of the following five sub-indexes (that subsume 127 quantitative indicators originating from sources such as UN agencies, the IMF or the World Bank) (SolAbility, 2021): Resource Efficiency & Intensity, Natural Capital, Social Capital, Intellectual Capital and Innovation and Governance Efficiency. Each Rank is based on the data available (where available; if not, the latest available data is used) from the previous year for all 180 countries subject to this analysis. For the analysed period, the measurable and comparable indicators have increased from 111 in 2018 (Solability, 2018), to 116 in 2019 (Solability, 2019) and, finally, to 127 in 2020 (Solability, 2020).

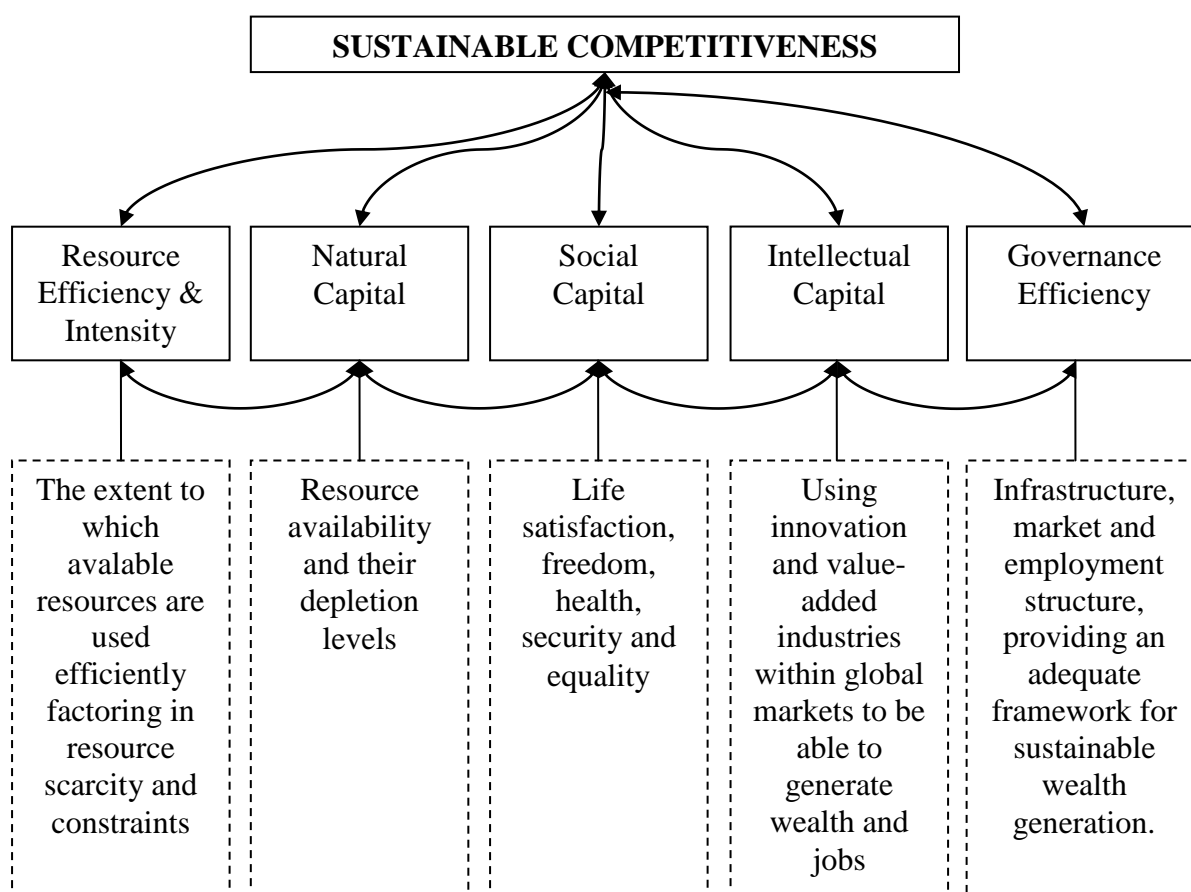


Figure no. 1. The five pillars of sustainable competitiveness

Source: Adapted from (SolAbility, 2021)

This ranking is a comprehensive measurement for competitiveness and having sustainability into account, it shows that we should go beyond a traditional set of economic indicators (Möbius and Althammer, 2019) and look at sustainable competitiveness as a mindset.

3. Research methodology

In order to reach the research objective of the paper, the authors based their research methodology on a quantitative research method. For the analysis specific to the top ten economies in the world according to their Global Sustainable Competitiveness Index (GSCI) sources of secondary data were used, such as articles and reports (rankings). The literature review was conducted using electronic databases.

4. Findings

The paper is focused on the analysis of the ranking conducted by SolAbility entitled The Global Sustainable Competitiveness Index within the 2018-2020 period. The first ranking under analysis is the GSCI 2018 (table no.1) and the competitiveness scores based on Natural Capital (NC), Resource Intensity (RI), Social Capital (SC), Intellectual Capital (IC) and Governance Efficiency (GE).

Table no. 1. Top 10 countries in the world in 2018 by their GSCI

Country	RANK	GSCI score	RANK	NC score	RANK	RI score	RANK	SC score	RANK	IC score	RANK	GE score
Sweden	1	60.5	5	63.6	9	59.2	11	55.1	2	69.3	37	55.4
Norway	2	58.2	27	57.8	78	47.9	1	58.6	3	66.7	3	66.7
Iceland	3	57.6	20	59.8	60	49.9	3	58.1	18	60.3	12	60.1
Finland	4	57.4	16	60.8	41	51.5	4	57.1	8	63.9	46	53.7
Denmark	5	57.2	61	49.7	18	55.8	12	55.0	5	66.5	19	58.9
Ireland	6	55.4	65	48.8	24	54.0	25	49.9	23	55.8	1	68.7
Switzerland	7	55.3	71	47.8	38	51.7	6	56.4	7	64.0	28	56.8
Austria	8	54.8	70	47.8	72	48.6	13	54.9	12	61.6	9	60.9
Latvia	9	54.2	25	58.4	15	56.7	51	46.0	37	50.5	18	59.3
Estonia	10	53.7	9	63.3	131	42.2	39	47.6	28	52.9	6	62.6

Source: Adapted from (SolAbility, 2018)

Specific to the 2018 ranking, the following conclusions can be drawn:

- The top ten countries are from Europe having quite close scores;
- Scandinavian countries are dominating: Sweden (the leader), Norway (the follower) and Denmark (placed on the fifth position);
- If we extend our arguments from the Scandinavian countries and refer to the Nordic countries, then we easily see that half of the countries stand represented and also occupy the first five positions: Sweden, Norway, Denmark, Iceland (third) and Finland (fourth);
- Considering the Natural Capital criteria, only two from the top 10 countries by their GSCI score are to found amongst the key players in the world: Sweden (fifth) and Estonia (ninth). Denmark, Ireland, Switzerland and Austria have a relatively low ranking (out of 180 countries from the list). Strictly using this criteria, the top 10 countries in the world are as follows (starting, in succession, from the first): Laos, Guyana, Democratic Republic of Congo, Cameroon, Sweden, Peru, Papua New Guinea, Brazil, Estonia and Colombia.

- Regarding the RI score, only Sweden is to be found from the ranking based on their overall performance and it is, from this point of view, ninth. The worst positioned country is Estonia, placed on the one hundred thirty-first place. The countries that have managed to secure a spot among the first in the world are Kenya, Togo, Nigeria, Ethiopia, Democratic Republic of Congo, Tanzania, Cameroon, Benin, Sweden and Republic of Congo;

- The SC score places Norway at the top of the list, closely followed by Iceland, Finland and Switzerland, portraying an intense competition. The leading countries factoring in this score are ranked as follows: Norway, Luxembourg, Iceland, Finland, Germany, Switzerland, Japan, South Korea, Slovenia and the Netherlands.

- Common for IC sub-index and the GSCI are the following countries: Sweden, Norway, Denmark, Switzerland and Finland. The rank is completed in this way: South Korea (the leader), China, Germany, Japan and Israel;

- The GE score shows Ireland as the first country, Norway on the third place, Estonia (sixth) and Austria as being ninth. Other countries from the list are Czech Republic, Romania, New Zealand, Germany, Israel and Liechtenstein;

- Based on the number of appearances (countries from the top ten based on the GSCI Score connected to the other five sub-indexes) the following conclusions can be drawn: Latvia (ninth by GSCI) is not found amongst the top 10 using the other scores. There are countries that appear once (out of five) - Iceland (SC), Denmark (IC), Ireland (GE), Austria (GE), twice - Finland (SC, IC), Switzerland (SC, IC), Estonia (NC, GE) and three times - Sweden (NC, RI and IC), Norway (SC, IC, GE).

In the year 2019 these are some changes in the Global Sustainable Competitiveness Index ranking (table no. 2).

Table no. 2. Top 10 countries in the world in 2019 by their GSCI

Country	RANK	GSCI score	RANK	NC score	RANK	RI score	RANK	SC score	RANK	IC score	RANK	GE score
Sweden	1	60.6	5	63.7	5	63.8	4	58.3	2	66.1	70	51.1
Finland	2	59.5	8	62.3	31	55.6	1	58.8	12	59.3	11	61.3
Iceland	3	57.3	22	58.0	29	56.0	3	58.4	19	55.4	21	58.6
Denmark	4	57.0	70	46.8	13	59.8	11	55.3	5	63.6	18	59.3
Switzerland	5	56.9	67	47.0	25	57.4	5	57.8	8	62.1	16	60.5
Norway	6	56.9	19	59.1	73	50.3	2	58.6	3	64.3	62	52.3
Estonia	7	54.9	6	63.3	111	46.5	21	51.9	27	50.4	7	62.5
Luxembourg	8	54.5	109	40.2	6	63.5	6	57.2	30	49.7	9	61.6
Latvia	9	54.4	29	56.7	11	61.1	51	47.2	49	44.1	6	63.0
Croatia	10	54.2	28	57.0	14	59.8	53	47.2	33	48.5	22	58.5

Source: Adapted from (SolAbility, 2019)

In the 2019 ranking, the following conclusions can be noticeable:

- The first ten countries are from Europe with close enough scores between them;
- The region of northern Europe, Scandinavia, is showing its domination through Sweden (first in 2018 as well), Denmark (an increase from 2018 to the fourth spot) and Norway (a decrease from being second to the sixth position in the rank);

- Nordic countries are showing their dominance through Sweden, Finland (now second when compared to its 2018 position when it was fourth), Iceland (still third, the same as in the previous year), Denmark and Norway;

- Using the NC scores, we find only three countries from the top ten by GSCI: Sweden (fifth, as in 2018), Finland (eighth, an increase from its previous standing - sixteenth) and Estonia (an increase from its previous ninth position to being sixth). In 2019, the top ten countries by their NC score are: Guyana, Laos, Democratic Republic of Congo, Cameroon, Sweden, Estonia, Republic of Congo, Finland, Canada and Paraguay;

- Considering the RI score, only two countries from the first ten using the overall score criteria are placed amongst the first in the world: Sweden (fifth as opposed to ninth in 2018) followed by Luxembourg. Latvia and really close are Denmark and Croatia. Estonia was the underperformer (rank one hundred eleven). The RI top ten rank is: Kenya, Togo, Ethiopia, Nigeria, Sweden, Luxembourg, Benin, the United Kingdom, Tanzania and Democratic Republic of Congo;

- Concerning the SC score (and enumerating them in order), Finland, Norway, Iceland, Sweden, Switzerland and Luxembourg are present from ranking based on their overall score and occupy the first six positions, portraying another strong Nordic presence (Denmark falling short of the top ten). The least performant are Latvia and Croatia. The complete rank is: Finland, Norway, Iceland, Sweden, Switzerland, Luxembourg, Austria, the Netherlands, Germany and Belgium;

- Sweden, Norway (both maintaining their previous spots: second and, respectively, third), Denmark and Switzerland are present on the IC rank. The rank also shows South Korea, Singapore, Japan, the United Kingdom, China and Israel;

- There are three countries present in the top ten using the IC score that area also found in the GSCI score rank as well: Latvia, Estonia and Luxembourg. The rank is completed by Ireland, Czech Republic, Slovenia, Poland, Germany, Mauritius and New Zealand;

- Countries that appear within the top 10 countries in the world within the five sub-indexes: Sweden (four times - NC, RI, SC, IC), Finland (twice - NC, SC), Iceland (once - SC), Denmark (once - IC), Switzerland (twice - SC, IC), Norway (twice - SC, IC), Estonia (twice - NC, GE), Luxembourg (three times - RI, SC, GE), Latvia (once - GE) and Croatia (not within the top ten using the other scores).

The final year of the analysed period, 2020, displays some noticeable changes from the previous two years (table no. 3).

Table no. 3. Top 10 countries in the world in 2020 by their GSCI

Country	R A N K	GSCI score	R A N K	NC score	R A N K	RI score	R A N K	SC score	R A N K	IC score	R A N K	GE score
Sweden	1	62.1	14	63.1	9	63.7	3	61.6	2	69.5	77	52.5
Denmark	2	61.0	67	51.4	6	65.6	14	57.8	4	67.0	14	63.1
Iceland	3	60.7	13	63.8	75	52.0	1	65.4	13	61.3	19	61.2
Finland	4	60.4	27	60.5	50	55.3	4	61.6	10	64.3	24	60.3
Switzerland	5	59.4	87	47.6	11	63.1	5	61.0	9	64.7	22	60.7
Estonia	6	59.4	12	63.8	96	49.8	10	59.4	24	55.8	4	68.0
Latvia	7	58.2	17	62.1	15	61.5	40	51.8	42	49.4	7	66.1
Luxembourg	8	58.0	92	46.8	4	68.3	11	58.9	32	51.8	11	63.9

Norway	9	57.7	40	57.5	122	46.4	2	65.0	5	66.7	71	52.8
Croatia	10	57.2	21	61.1	30	57.7	37	52.3	37	50.9	12	63.9

Source: Adapted from (SolAbility, 2020)

Within the 2020 ranking, the following remarks can be drawn:

- The first ten countries in the 2020 ranking are from Europe and are having significantly close scores;

- Scandinavia, yet again, has the strongest representation: Sweden (first in 2018, 2019 and 2020), Denmark (fifth in 2018, fourth in 2019 and second in 2020) and Norway (from the follower's position in 2018, down to sixth in 2019 and now on the ninth spot);

- Nordic countries are again represented by Sweden, Denmark, Iceland (maintaining its third spot from the previous two years, Finland (now being fourth, just as it was in 2018; it decreased from its previous placement when it was the follower) and Norway.

- Taking into consideration the NC criteria, we notice that in 2020, there is no country to be found from the GSCI rank. The rank from 2020 is as follows: Laos, Guyana, Paraguay, Bhutan, Democratic Republic of Congo, Cameroon, Brazil, Papua New Guinea, Suriname and Venezuela;

- Sweden (back to being ninth just as it was in 2018), Denmark (constant improvement throughout the period) and Luxembourg (the best position out of the three, improving its previous standing) are the only ones present in the top ten RI rank as well. The leading countries for this criterion are Democratic Republic of Congo, Ethiopia, Kenya, Luxembourg, the United Kingdom, Denmark, Ireland, Ghana, Sweden and Uruguay.

- Based on the SC score, Iceland, Norway, Sweden, Finland, Switzerland and Estonia are present from the GSCI score rank, the first five also constituting the top five of this specific rank. The rank is completed by (from the sixth to the ninth) Austria, Belgium, Maldives and Slovenia;

- Keeping the second place is Sweden (referring to the IC score), followed by Denmark, Switzerland, Norway and Finland. The other five countries are: South Korea (that keeps its first place), Singapore, the United Kingdom, China and Japan;

- There are only two countries common with the overall criteria found using the GE score: Estonia and Latvia. The list also displays the Czech Republic, Ireland, Slovenia, Slovakia, Germany, Liechtenstein, Poland and Mauritius;

- Based on the number of times each country is present on the ranks specific to the sub-indexes, this situation is shown: once - Iceland (SC), Estonia (GE), Latvia (GE), Luxembourg (RI), twice - Denmark (RI, IC), Finland (SC, IC), Switzerland (SC, IC), Estonia (SC, GE), Norway (SC, IC), three times - Sweden (RI, SC, IC) and Croatia had the closest positioning at the twelfth position for its GE score.

Common countries for the analysed period (present in 2018, 2019 and 2020 as leading countries in the world by their GSCI score) are: Sweden (the leader every year), Norway (starting second but finishing ninth), Iceland (maintaining its third position), Finland (navigating from fourth to second), Denmark (initially fifth but reaching the follower's position in 2020), Switzerland (seventh in 2018 and fifth the following years), Latvia (ninth in 2018 and 2019 and seventh in 2020) and Estonia (from the last spot to being seventh and then sixth). Luxemburg (eighth) and Croatia (tenth) have been twice on the rank, in 2019 and 2020, maintaining their placement. Ireland and Austria are the countries with only one occurrence within the top ten (this happened in 2018).

5. Conclusions

Competition between companies is fierce in the global economy that we are living in. Nowadays companies tend to align their strategic thinking to the best context available for them and, thus, conduct business in a country that is able to provide sustainable competitiveness. From this point of view, looking at the top ten countries in the world according to the Global Sustainable Competitiveness Index for the 2018-2020 period, it is clear that Europe has an edge, fully occupying the rank. Moreover, a region sets itself apart: the one belonging to the Nordic countries (Sweden, Denmark, Iceland, Finland and Norway) with power display in the hands of Scandinavia (Sweden - the constant leader, Denmark - a steady growth and a strong challenger for Sweden, having only a difference of only 1.1 in their 2020 scores and Norway - the one that fell from its second position in 2018 to being ninth in 2020).

Future research can be directed towards a comparison between similar or linked ranks such as the Sustainable Development Goals Index (Sachs et al., 2020), the Global Competitiveness Index (Schwab, 2019) or the Sustainable Brand Index (SB Insight AB, 2021).

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FINANCIAL STABILITY ASPECTS IN THE CONDITIONS OF EUROPEAN MONETARY UNION

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Abstract: *Under the current conditions of conducting international economic relations, there is a risk of failing to accomplish the monetary policy objectives due to reasons pertaining to the mechanisms that convey shocks cross-border. The conceptual review of object definition, under such conditions, leads to the necessity of attaching to them these risks of unfulfillment; this requires an additional chapter of macroeconomic policy design, chapter that identifies the possible risks emerging from the integrated cross-border regime of the European economies, as well as the possible solutions to absorb such shocks. This implicitly presumes the quantification of the whole phenomenon or risk emergence and of its possible effects, with the view to determine the effort necessary to be undertaken in order to absorb the associated shock.*

Keywords: *stability, balance, sustainability, risks, monetary.*

JEL classification: *E 52.*

1. Current conditions of the international economic relations

Considering the situation of Romania, characterized by the fact that most of its international economic relations are within the European Union, we may say that one of the main features of the economic framework is given by one of the outcomes of the process of economic integration, i.e. removal of barriers hindering the economic relations between the member states. This set of facilities directed towards increasing the efficiency of the interstate economic relations has a high risk attached to it, namely, the cross-border propagation of the economic shocks and cross-border conveying of the risks. Consequently, the macroeconomic policies are also confronted with an additional category of macroeconomic risks generated by the possibility of importing adverse economic phenomena whose underlying causes are not related to the internal environment. Thus, an additional and permanent task for the macroeconomic policies is to provide a potential for shock absorption – which acts best if the design of the policies allows for enough mobility by providing additional funding.

The crisis found the Romanian banking system dominated massively by the foreign capital, and the financing from the mother banks for their local branches tends to decrease, which makes it more difficult to access funds from the banks. The foreign direct investments in Romania also display a decreasing trend, in agreement with the regional evolutions. It is therefore absolutely necessary to identify alternative sources of financing.

Another particularly important problem for the national economy is the decreasing demand for credits, because of the shrinking economic activities and lower purchasing power, which diminished the function of financial intermediation.

2. General objectives of the monetary policy

The monetary policy, component of the macroeconomic policies system, derived its objectives from the general objectives of this system, namely, from the strategic objective represented by the macroeconomic sustainability; within this context, the main objectives of the monetary policy are:

- Ensure price stability;
- Ensure national currency stability;
- Ensure financial stability;
- Ensure the monetary conditions for the establishment of an efficient economic flow on the market.

The accomplishment of these objectives is understood as the involvement of the monetary policy within the system of macroeconomic policies.

3. Price stability

Conceptual theoretical aspects

Theoretically speaking, an economic concept is approached via elements such as:

- What real economic aspect is it referring to;
- How does it prove that it is a real phenomenon or process.

Thus, price stability:

- Refers to the aggregate level of the prices measured by indices;
- It is accomplished when
 - o The money maintain their value in time, or when
 - o The rate of purchasing power erosion is very slow.

Definitions

- Reputed specialists -

Paul Volcker (Federal Reserve President 1979 - 1987) defined price stability as the situation in which the expectations regarding the general long-term increase or decrease of prices don't have substantial influence on the economic and financial behaviour;

Alan Greenspan (Federal Reserve President 1987 - 2006) defined price stability as the situation in which the change of prices expected by the public is sufficiently low and gradual, so as not to be taken into consideration in company and household decision-making;

Alan Blinder (Federal Reserve President 1994 - 1996) defined price stability as the situation in which the ordinary people cease to speak about inflation and worry about it;

Ottmar Issing (first Chief Economist of the Central European Bank, 1998) defined price stability as a stable level of the aggregate prices, or a low level of inflation;

Lucas Papademos (Governor of the Central Bank of Greece, 1994-2002, Vice-president of the Central European Bank, 2002-2010) defined price stability as that state of the economy in which the general level of prices is stable, strictly speaking, or when the inflation rate is sufficiently low and stable, so as the considerations regarding the nominal dimension of the transactions ceases to be a pertinent factor for the economic decisions.

- Institutions -

The Central European Bank defined price stability as an inflation rate, calculated on the basis of the harmonized index of consumer prices, below (almost) 2 percent.

Monetary stability

The concept of monetary stability overlaps that of price stability.

Financial stability

The literature doesn't provide a recognized definition of the financial stability because of the novelty of this aspect, which regards matching the needs for macroeconomic administration with the needs of a theoretically studied problem, synthesized in a quantification indicator.

The following points of view can be approached regarding the concept of financial stability:

- In the broad meaning, with accent on the overall functioning of the financial system, the financial stability is defined as the situation in which the financial system is able to draw and place efficiently monetary funds, while withstanding shocks without bringing any damages to the real economy;

It results from here that the prudential monitoring by the central bank is essential for the maintenance of the financial stability.

- In a narrower meaning, with accent on the avoidance of crises, financial stability is the situation in which no bank crises occur and when asset prices and, particularly, the interest rate, are highly stable.

It results from here that the interest rate policy is very important for the financial stability; a conflict may even arise between the price stability objective and the financial stability objective.

4. Relation between price stability and financial stability

According to the theory there are two approaches, although the theory is yet to be recognized because of the novelty of aspects, which require further studies and practice in order to add conceptual elements:

- Conventional approach: the two types of stability mutually support and potentiate each other, on the long-term;
- The novelty aspect, verified as *hypothesis*: as inflation stabilizes at low levels, a new economic environment is established, in which the financial stability is not guaranteed.

According to BNR Governor (M. Isărescu, 2011), the macroprudential policies comprise measures that aim to secure the proper health state of the financial system, or that can avoid losing control on some sector-specific problems.

According to the studies of Borio (2003), a successful macroprudential policy will accomplish its goal, so that the microprudential policy is subordinated to the policy that encompasses the entire financial system. José Viñals (2011) considers that irrespective of the macroprudential policies performance, they cannot be regarded as sufficiently good replacement of efficient macroeconomic policies, and he suggests the use of a combination of macroeconomic and prudential policies to avert shocks within the economy. In the opinion of Clement (2011), the macroprudential policy differentiated from the other economic policies not just through flexibility and minimal costs, but also through the two dimensions it approaches, the *temporal dimension* and the *structural dimension*, so that it marks the major distinction between the macroprudential and microprudential policies in terms of objectives, mechanisms and instruments of transmission.

The macroprudential policy targets the viability of the financial-banking system as a whole, as essential relation for the operation of an economy, with the main objective of avoiding macroeconomic costs resulting from the instability of the financial system and of decreasing the systemic risk. The macroprudential policy is considered to be complementary to the microprudential one, while it also has interactions with different types of economic policies, which have a particular impact on the financial stability; thus, it acts towards the build-up of financial imbalances by enhancing protecting barriers, by the joint identification and approach of the exposures, of the risk concentrations, of the relations and interdependencies as risks of contagion.

One may say that the macroprudential policy is directed exclusively towards ensuring the stability of the financial system using a set of specific instruments to limit the risks that exist at the financial level, particularly the systemic risk. The number of countries that implement such measures seems to have increased lately, because their innovating character presumes additional efforts of the monetary authorities in order to ensure an efficient communication and the transparency within the financial system.

Two dimensions of approaching the existing risks were observed:

- The *temporal dimension*, i.e. risk procyclicality;
- The *structural dimension*, i.e. risk distribution within the system.

The differentiation, within the prudential policy, between the microeconomic and macroeconomic approach was also noticed. The first delimitation targets the financial stability at the institutional and individual level, presuming an easier and more flexible application, while the macroprudential approach presumes supporting the entire financial system. The macroprudential policy aims to ensure a higher transparency, it doesn't distort competitiveness and, compared to the microprudential policy, the risk factors are considered to be endogenous.

The main objectives of the macroprudential policy are:

- *Consolidating the resilience of the financial system* to economic shocks and imbalances;
- *Limiting the propagation of the international financial crisis.*

Besides these objectives, there also are actions to *minimise the costs* caused by the financial instability, the *decrease the discrepancies* between the settling date of the assets and of the liabilities, *stimulate* the credit holders to use it efficiently, etc.

A difficulty in approaching the macroprudential policy regards the identification of its *limits*, the division of responsibilities pertaining to the different categories of financial policies, so that while the main concern of the macroprudential policy is the stability of the financial system, the other policies must act in close correlation with the prudential policy.

For the financial system it is very important to have an accurate coordination between the macroprudential policy, the monetary policy and the fiscal-budgetary policy, because problems may arise regarding the operational independence when assigning responsibilities and regarding the institutional orientation.

A strong relation was noticed between the *macroprudential policy* and the *monetary policy*, since they condition each other. Thus, the measures aiming to consolidate the resilience of the financial system can also strengthen the monetary policy, while the macroeconomic stability will decrease the vulnerability of the financial system. The evolutions noticed within a particular policy must take into considerations the changes in the other policy; thus, the principles of the macroprudential policy will influence the conditions for lending credits.

Regarding the instruments of the macroprudential policy and their role in the development of macroprudential instruments, the operation started from the microprudential instruments, which have been adapted to the economic conditions and to the existing prudential standards.

Among the main instruments in use there are risk measuring methodologies, financial reports, regulation capital, financing and liquidity standards, collateral arrangements, limits for risk concentration, compensation designs, restrictions regarding the distribution of the profit, insurance mechanisms, etc.

The literature discussed several instruments which were actually used in practice, i.e. the liquidity rate, the level of indebtedness, proportion of the credit within the GDP, test resistance trials, VaR, etc.

The macroprudential instruments used by the developing economies also include measures to limit the mismatches regarding the currency system, which aim to limit the internal financial consequences of the capital inflows. The large number of ways of action has a positive effect on the economy, but the instruments used by a specific segment can lead to the amplification of the imbalances in that particular sector. Thus, the transmission mechanisms of the macroprudential policy can change at the same time when changes in the financial intermediation occur, the financial innovation and the consolidation of the financial system can lead to unpredictable changes in risk distribution. The macroprudential policy is in its early stage in most countries, being preponderantly noticed in the emerging economies. The macroprudential policy relied on experience, not

necessarily on the definition of a set of rules, and its efficacy has been proved by the benefits of its implementation. The use of macroprudential policy lead mainly towards the limitation of credit allowance in particular sectors, using the minimal compulsory reserves to prevent the onset of imbalances. New evolutions have been noticed within the macroprudential instruments; thus, the macroprudential instrument that has the strongest influence on the emerging economies is the systemic overtax of the capital and of the liquidity, included in the last Basel agreement. Thus, Basel III, which is considered to be the answer to the deficiencies caused by the international financial crisis, includes two additional safety systems, as mentioned above. It is believed that if, on the long-term, the new regulations will be enforced and will function properly, the banks will be able to absorb violent shocks, despite the lower profitability of the banking sector. The systemic risk is limited through several structural measures; thus, short selling operations are noticed in Central and Eastern Europe, although other major risks still persist on the financial markets, such as the risk of unpredictable behaviour of the capital flows, of risk concentration in particular financial institutions considered TBTF, the risk of procyclicality, etc.

The macroprudential policy presumes the existence of a capacity to identify the risks in due time, so that actions can be taken to control them. The purpose of the macroprudential policy is to *monitor the aggregated risk, in a robust manner and oriented towards the future*, because the risks display a trend to manifest within periods of normality; thus the instruments used by this policy must provide enough time to dampen the cyclic implications of the monetary vulnerability. However, so far, none of these instruments proved sure enough to predict the possible risks and guide the economic policies.

Three possible patterns of macroprudential policy exist, which differ in their purpose, instruments and cooperation, as follows:

- The *prudential model*
- The „*eclectic*” *pattern*
- The „*overarching policy*”.

The second pattern uses specific instruments besides prudential instruments, while the third acts indirectly, relying on the cooperation between authorities. The first two models refer, as main objective, to ensuring the stability of the financial system, while the third aims bot the financial and the non-financial sectors. Overall, each pattern has both strengths and weaknesses, but for the establishment of a framework of action, the strengths have to be combined, while the weaknesses have to be limited.

As mentioned before, one of the challenges confronting the macroprudential policy regards the coordination of the economic policies, so that in order to improve the efficiency of the implemented measures, the institutional representation had to be enhanced. Therefore, several financial institutions have been established at the European level, their main goal being the macroprudential surveillance, risk alleviation, ensuring a more efficient management of the credit institutions, etc. Thus, the European Parliament and the Council of the European Union adopted, in November 2010, the reform of the European architecture, in terms of financial surveillance, with three European Supervisory Authorities: the European Banking Authority (EBA); the European Securities and Markets Authority (ESMA); and the European Insurance and Occupational Pensions Authority (EIOPA).

These authorities will strengthen the macroprudential supervision. The European Systemic Risk Board (ESRB) plays a significant role by its activity of collecting and analysing basic and relevant information, identification and classification of systemic risks depending on their priority, issuing of warnings about the identified risks. Compared to the

other policies, the macroprudential policy was noticed for the several advantages it has in approaching the systemic risk. First, the macroprudential instruments of action are less disconcerted and are much more flexible, so that part of them can be directed specifically towards particular sectors of intervention, which thus decreases the costs. Another advantage is that these instruments are implemented especially when there is no desire to harden the monetary policy.

The macroprudential approach was noticed within the European context due to the existing constraints, to the absence of a harmonized monetary policy and of a policy of harmonizing the capital standards.

Under exceptional circumstances, such as the crises, the central banks must alleviate the panic from the financial markets, must ensure credit market operability and prevent the collapse of the financial institutions and of the institutions of systemic importance.

The crisis manifested throughout all the categories existing within the financial system, mainly within the banking system, by narrowing the activity of giving bank credits, by increasing the credit risk, by deteriorating the banking performance indicators, etc.; however, it also acted within the other components of the financial system. Thus, the economic activity of the non-financial companies, of the insurance companies, of the pension funds also deteriorated, while the aversion towards the reference index of the capital market intensified.

The measures initiated by the monetary authorities to support the financial system have been used in a combination of *ad-hoc* measures implemented within the individual financial institutions and *complex schemes* applied on the background of an intensifying financial crisis. The *ad-hoc* measures have been implemented at the level of financial institution because they were set up in a rapid and flexible manner, while the complex schemes provided more transparency than the initial ones, didn't distort the competitiveness and could be easier adopted because they were part of a well-defined plan. The governmental authorities acted to guarantee the bank deposits, to support recapitalization, to delimit the bad banks and to nationalize financial institutions of major importance.

From the perspective of the monetary authorities, they can use *conventional measures* and *unconventional measures*. The first ones include measures adopted through monetary policy instruments, i.e. monetary policy interest rate, permanent facilities and compulsory minimal reserves. In a first stage, the central banks have decreased the monetary policy interest rates because the deterioration of the financial market conditions has changed the perspectives regarding the financial stability, and also the purpose of reviving the bank credits.

Given the major deficiencies observed in the transmission channels of the monetary policy and the significant deterioration of the economic environment, the central banks were compelled to use so-called unorthodox measures, which mainly involve interventions on the national markets and interventions on the currency market.

The enforcement of unconventional measures differs in the case of the developed countries from the situation of the emergent economies, due to the differences in the financial stress and in the credibility of the monetary policy. Thus, the developed economies used non-standard measures immediately after the Lehman Brothers crash, relying heavily on measures that support the liquidities. They promoted a decreasing rate of the interest rate near to zero, and also acted to expand the eligible counterparts and the maturity of the refinancing operations. Unlike the developed economies, the emergent economies promoted the use of direct measures, such as supporting the requirement for reserves. The major difference in the implementation of measures was the use of the

qualitative and quantitative support of the credit. Thus, the developed economies relied particularly on this type of measures, while the emergent economies used them just slightly. Thus, only Israel implemented for a brief period (6 months) measures for the quantitative support of the credit, and only some central banks have also implemented measures for the qualitative support of the credit.

On the background of the international financial crisis, it appeared absolutely necessary to approach the financial intermediation and supervision both in microprudential and in macroprudential perspective, developing a, yet missing, framework of action that helps forecasting the possible economic imbalances.

The macroprudential policy is regarded as complementary to the microprudential policy, and it interacts with different types of economic policies which have a sizeable impact on the financial stability, working towards the elimination of financial imbalances by enhancing the protecting barriers, by identifying and joint approach of the exposures, of the risk concentrations, of the relations and interdependencies as risks of contagion.

Thus, what was the purpose of these measures? The authorities acted in a consistent manner just in order to avoid a collapse of the financial system, to ensure its sturdiness, because the financial system plays a primordial role in ensuring the financial stability, being cleaned and consolidated in time. There is a positive direct relation between the macroprudential policy and the financial stability, so that a *solid and credible transparent policy will potentiate the financial stability*, implicitly accomplishing the basic goal of the monetary policy too.

The financial stability is seen in a new approach, because the prevention of the systemic vulnerabilities is not any more done exclusively by temporising the accumulation of risks through the requirement for capital, but also by working on the amplitude of the financial risk cycle. Furthermore, the anti-cyclic role of the macroprudential policy is consolidated (additional capital reserves), including by proactive measures to temper the demand for credits, while the capital reserves accumulated during the periods of expansion are to be used in periods of economic adjustment.

5. European institutional aspects in the field of financial stability ensuring

Because of the importance ascribed to the provision of an economic climate proper for the objectives developing from the economic sustainability goal, the European Union has established several institutional mechanisms that provide financial stability.

Thus, the European Financial Stability Facility (EFSF) has been established by the Euro zone member countries following the decisions that the Ecofin Council took on May 9th, 2010. EFSF mandate is to protect the financial stability within Europe by granting financial assistance for the Euro zone member countries. EFSF can use, under certain conditions, several instruments such as: loans to the countries experiencing financial difficulties, interventions on the primary and secondary credit markets and recapitalization of the financial institutions by loans granted by governments.

The European System of Financial Supervisors (ESFS) has been also established, in association with an intricate network of regulatory and supervisory institutions. Its objectives are to facilitate the cooperation between the national and EU supervisors.

Within the same spirit, three European supervisory agencies have been established on January 1st, 2011: the European Banking Authority (EBA), the European Securities and Markets Authority (ESMA) and the European Insurance and Occupational Pensions Authority (EIOPA).

Besides the development of the EU regulatory and supervisory institutional structure, just before the onset of the crisis, several mechanisms of cooperation on matters of financial stability have been established in several European countries. The financial

stability committees have been established with the purpose to facilitate the cooperation on matters of financial stability between the central banks, the national supervisory agencies and the national governments.

The flows of capital and their consequences on the macroeconomic and financial stability

Current account liberalization is one of the most debated decisions of macroeconomic policy because the different theoretical approaches have different interpretations on the opportunity of taking such a measure.

Necessary elements of the system of macroeconomic policies

The process of real convergence with the European Union of the emergent economies from Central and Eastern Europe is in progress and will continue for many years, given the lags existing in many of these countries.

The real convergence is characterized by the simultaneous manifestation of the following evolutions:

- Rates of economic growth higher than the average, particularly during the early stages of the catching-up process;
- Sizeable increase of the income per capita;
- Massive inflows of foreign capital;
- Strong tendency for the real appreciation of the national currency.

The accomplishment of the goals of sustained economic growth, on the one hand, and the macroeconomic stability, on the other hand, presume the stimulation of investments and the avoidance of the pro-cyclic character of the macroeconomic policies.

In terms of investments, the authorities should improve their capacity to absorb European funds, while the measures for the betterment of the business environment would allow a higher flow of private investments.

Because the Central and Eastern European economies display overheating trends during their real convergence, the fiscal imbalances must not add to the economic cycle.

The economic policies should capitalise on the periods of sustained growth in order to promote the necessary reforms, thus adding supplementary room for manoeuvre for the monetary policy during the possible subsequent periods of economic decline (Krueger, 2004). This calls the fiscal policy to use the periods of economic boom as a good opportunity for the build-up of fiscal surpluses that can be used as “dampers” in the perspective of the periods of decline, when it will have to control the economic divergences and asymmetric shocks (Trichet, 2001).

The monetary policy might be confronted with a dilemma in the context of the massive inflows of capital, which is very likely, due to a possible change in the world financial polarity. On the one hand, the evolution of the inflation might claim successive increases of the monetary policy interest rate, which encourage saving, thus providing a balance between the level of saving and the extent of investments, balance which is essential if one wants to avoid an excessive current account deficit. On the other hand, the higher interest rates might create a positive interest rate differential, which would draw additional inflows of capital, with the ensuing pressure towards the appreciation of the national currency. The episodes of sudden appreciation might get reversed subsequently, with the consequences of a higher rate of inflation and tensions within the financial sector. The market could solve this dilemma by setting lower risk premiums for the investments in the transition economies. However, since the risk premiums sometimes have non-uniform

evolutions and are sensitive to factors that are not under the control of the authorities, the capital inflows may thwart the efforts towards economic stability (Lipschitz et al., 2002).

Another extremely sensitive aspect is the recommended behaviour of the monetary policy when inflation is under control for the forecasted period, but the financial and macroeconomic imbalances deepen. If the economic policy fails to design and implement a swift response, in an early stage, the authorities passively bring their contributions to the deepening of these imbalances which, sooner or later, might either start a crisis, or involve much higher economic costs in the case of a subsequent intervention, when the financial or macroeconomic problems are already acute. Although theoretically, the necessity for intervention cannot be doubted, the decision of the right time for intervention by the central bank, probably with the support of the other authorities, may rise several hard to solve problems, such as:

1. Is it possible to identify clearly the imbalances in an early stage?
2. If the imbalances that appear in an early stage disappear by themselves/spontaneously, and the authorities adopt swift restrictive measures, the combined effect of the two factors might push the economy in a steep recession.
3. How could a restrictive monetary policy be explained in the absence of inflationist pressures? (Crockett, 2003).

6. Final aspects and conclusions

Given the complexity of these aspects, the proper calibration of the monetary policy reaction is much more so difficult. Furthermore, given the limitations imposed by the opening of the capital account, the preservation of the macroeconomic balances cannot be exclusively the task of the monetary policy; the fiscal policy and the income policy should come to aid, by assuming part of the efforts towards stabilization. More precisely, the fiscal policy should hold the main role in correcting the current account imbalances. This means that the countries must thus calibrate their budgets so as to cope with the increasing demand from the private sector and take appropriate measures of protection against a possible crisis, because the size of the fiscal deficit contributes directly to the magnitude of the current account deficit. At the same time, through its component of incentives creation, the fiscal policy might encourage the exports and the productive activities in general. Besides the restrictiveness of the fiscal policy, the government should also implement a prudent policy of incomes by limiting the pay rise in the public sector, action which might also narrow the copying effect which the excessive pay rise in the public sector may have on the wages from the private sector. This would avert the uncorrelated evolution of the wages with the evolution of work productivity.

Looking in perspective, the process of real and nominal convergence of the Romanian economy will be accomplished at a rate which depends largely on the general coherence of the economic policies implemented by the authorities.

The process of adopting the Euro presumes a realist, visionary management, which to take into consideration that the Romanian economy needs a period of adjustment before joining the ERM II. This period must be regarded as an opportunity to finish the structural reforms and to consolidate the macroeconomic stability, rather than a “break” that might relax prematurely the macroeconomic policies. The central bank must ensure, maintaining its inflation targeting strategy, the gradual nearing of the inflation rate to the levels that are compatible with the Maastricht price stability criterion. Once the reduced inflation has been consolidated, favourable conditions will be set up for the sustainable accomplishment of the nominal convergence criteria regarding the long term interest rate and the exchange rate stability. At the same time, the implementation of a prudent fiscal policy will support

the sustainability of the public finances. Under these conditions, Romania might join the Euro zone by 2019.

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BIG DATA – AN USEFUL TECHNOLOGY FOR ECONOMISTS

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Abstract: This article provides an analysis of Big Data technology and its use in economics. This term is frequently associated with the notion of Artificial Intelligence so that in the text they are frequently appearing together, especially in the section for practical study. Big Data has passed the “buz word” term and it is a reality of the current period. Evolutions in the field of hardware and software also contribute to this state of affairs, which allows applications that incorporate Big Data technologies to be common in the economic field. Professional accountants need such technology because the work involved requires storing and manipulating a large volume of data, which often exceeds the table structure and is found in unstructured formats (documents, electronic correspondence) that must be analyzed in a short period of time. Big Data technology can no longer be separated from technologies for data analysis, which brings competitive advantages to economic operators who use them and an increasing knowledge for professional accountants, giving them the opportunity to diversify the services offered. The article concludes an analysis of the introduction of this technology in the curriculum of universities of economics.

Keywords: big data, block chain, professional accountants, artificial intelligence.

JEL classification: M41, M15.

1. Presentation of BIG Data technology

In 2020 the financial industry, like all other areas, amid the health crisis made major progress in digitizing activities so that countless innovations were launched aimed at bringing the consumer closer to the services offered through applications running on mobile devices or through the Internet. It is worth noting the emergence of integrated financial services that create new industries to which consumer expectations have quickly adapted. In this context, Big Data has become the area of greatest strategic importance for all businesses. A perspective of the use of Big Data technologies can be seen from figure no. 1 where is represented the forecast of the revenues brought by this technology until 2027.

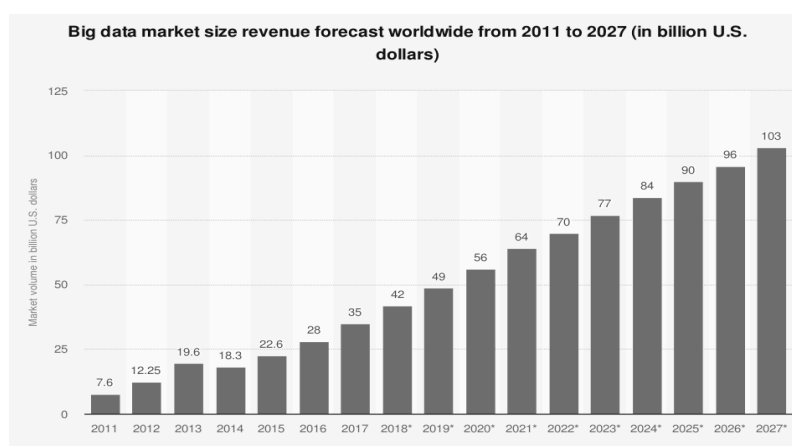


Fig. no. 1 The expansion of Big Data technologies
(sursa: <https://www.statista.com/statistics/254266/global-big-data-market-forecast>)

1.1 The paradigm shift

In 2018, the authors (Mayer-Schönberger and Cukier, 2018) published a popular book that changed the way we look at things. It explores new horizons, trying to understand in this way how today's avalanche of information will change our perspective on the world. With bold and well-written arguments, the book clearly explains how companies can extract value, how policymakers can use the power of detail, and how everyone's cognitive patterns need to change.

According to Mayer-Schönberger and Cukier, Big Data is the process of using advanced programs to analyze and interpret massive amounts of data. Big Data obtains information through applications, sensors or various external sources and leads to the optimization of the entire system in a short time. Large amounts of data at high speed and real-time are easily managed and after these from the past will be used to price future people's behavior and interactions between them.

Relevant statistics (Bouissou, 2019) indicate that internet traffic has exploded globally. In technical terms, the size of data circulating on the Internet exceeded one zettabyte, the equivalent of storing up to 2 billion years of music. More than 600 million people visit Google, which generates a trillion searches a day. The estimated increase for the next 5 years is 1500%. The amount of information stored is growing 4 times faster than the world economy. Aware of this avalanche of information, the question that persists in everyone's mind is whether man can capitalize on this intangible resource.

In the aforementioned paper, the authors (Mayer-Schönberger and Cukier, 2018) state that: "By changing the amount, we change essence." The essence of Big Data technology refers to obtaining predictions by applying mathematical algorithms to an important amounts of information. This change of paradigm brings as a novelty the transition from the use of samples to the use of the whole set of information and the correlation to the detriment of causality. One might think that accuracy is losing ground, but it is certainly gaining the power to understand phenomena and trends.

The traces that internet users leave out of browsing activity prove to be extremely valuable to any company and huge amounts are spent to capture and store important information in data warehouses. The analysis of search activities in the Internet (e.g. sales and traffic, search for information about epidemics, election results) through the sophisticated algorithm leads to the discovery of behavioral patterns. Unlike any other collection system it has previously used and which required a considerable amount of time for a synthesis to interpret, Google uses Big Data technologies to provide real-time information.

Estimating the potential offered by this technology, other companies try to exploit the mass of data that accumulates every day in various data warehouses. Top companies that use Big Data technologies include: Accenture, Oracle, IBM, SAP, Microsoft, Hewlett Packard Enterprise, EMC, Cisco, Amazon.

1.2 The advantages of the Big Data model

Big Data (Stanescu Mihaela, 2013) is not only an extremely vast collection of information that becomes useless after use but acquires a vital economic importance leading to a new economic vision, a source of innovation and new services. In addition, the same data will be able to be used for various studies only needing to design an algorithm appropriate to the purpose.

Big Data constantly communicates information which determines a triple change of mentality:

1. the unilateral perspective is replaced by a rapid analysis of a vast amount of information;

2. the heterogeneous mixture of information is favored over accuracy;
3. the correlation of information gains weight while causality is abandoned as illusory.

The benefits of using Big Data technologies in current activities of information exploitation from various sources are (Juvyns, 2017): operational optimization, actionable intelligence, identification of new markets, correct predictions, detection of losses and fraud, very detailed records, decisional process improvement.

Going further, a multidisciplinary approach reveals the development of complex social systems in this digital age. The acceleration of processes changes the reality that becomes measurable, thereby, scientific. For example, tags become a way of organizing reality no matter how large the quantity being evaluated. The acceleration of processes changes the rules of the game, in particular of the economic game.

2. Big Data technology for economists

The Internet is the place where we look for the most information in all fields and also here we keep in touch with people, hold courses, make transactions, appointments, develop business. There are businesses that are born 100% online and grow in the same way.

The granularity and multidimensionality of big data offer economists the advantage of identifying economic trends as they arise ("now casting"). You can also create a set of tools to manipulate and analyze this data.

In the past, new entrants to the financial services industry had difficulty to set foot in, disadvantaged by the lack of a time-consuming customer database. Now, FinTech companies, often start-ups, have found ways to enter markets based on innovative technology or the processing of all data, from mobile payments to insurance, investment, savings, etc., the trend being to create an ecosystem that has the effect of mutually beneficial cooperation between stakeholders, reducing costs with financial services, increasing speed and improving quality for consumers.

At the same time, financial market supervisors and Fin-Tech companies have been set up to work so that both the authority and the regulated entities and / or other interested companies have a good understanding of the opportunities and risks generated by the implementation of advanced technologies (big data, artificial intelligence) in the economic sphere.

Another direction, accelerated by the social conditions created by the pandemic, is the development of Blockchain technology, which is a database that is consensually distributed and synchronized across multiple sites, institutions or locations. The European Parliament adopted a resolution entitled "European Parliament resolution on distributed register technologies and blockchain technologies: building confidence by eliminating intermediation". Blockchain technology can be applied in all sectors of the economy and the importance of research and investment in these technologies that provide a high degree of security to financial transactions is emphasized. The European Commission's position on new technologies is reflected in two draft regulations, one on crypto-asset markets, together with the draft regulation on a pilot regime for blockchain-based market infrastructures.

2.1. The characteristics of Big Data technology in economic perspective

In 2013, the QuantCube application was created to quantify the growth of businesses around the world using "alternative data" extracted from social media, search engine queries, GPS coordinates or satellite imagery. In just a few minutes, the application developed by a fintech startup predicted the failure of the new version of the BlackBerry

smartphone, right on the day of its launch, a failure that was confirmed a few weeks later by a decline in smartphone sales (Bouissou, 2019).

This new world of data stretches from infinitely small to infinitely large. The particularities (Bodislav, 2018) that make Big Data such a tender source are:

1. **Volume** - the amount of data created in 2018 is 40 zettabytes of data, marking an increase of 300% compared to 2017;
2. **Velocity** - increases exponentially based on the number of connections to the mobile network;
3. **Variety** - the sources, formats, file structures can be different, either for basic information or for real-time communications or transfers;
4. **Veracity** - attempts are being made to improve the percentage of truthful information given that 1 in 3 respondents "do not trust the information" that big data provides. Inaccurate data costs the US economy about \$ 3.1 trillion each year.

The definition of any technology as belonging to the Big Data domain implicitly refers to the 4 characteristic elements (fig. No. 2)

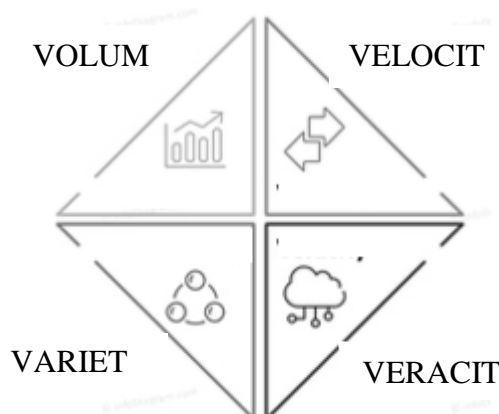


Fig. no. 2 Big Data particularities

Because this information helps to better understand the target audience and their preferences, the business will be able to anticipate their needs. Big Data information can help innovation and be a decisive support in overcoming competition. Companies like Google and Alibaba use Big Data to discover flaws in their services and products, as well as consumer intentions and preferences (Tenenbaum, 2017)

To get more benefits from Big Data, it is important for any company to properly approach the management of a Big Data project by training its employees. The result will be a more productive and efficient business. The use of the collected data gives a potential to grow the business. How to obtain relevant information is provided by Big Data Analytics.

Big Data Analysis is the process of extracting useful information when analyzing different types of big data sets. The data approach is based on a specific data lifecycle analysis that organizes and manages the tasks and activities associated with data analysis. According to the authors (Janvrin and Weidenmier Watson, 2017) this sequence contains the following stages:

1. Business case evaluation - The business case must be identified, created, evaluated and approved. The business case helps to determine the evaluation criteria and guidelines for evaluating the analytical results.

2. Data identification

3. Data filtering - The data identified in the previous step is collected and filtered to eliminate corrupted data due to the fact that not all data collected contains significant information.

4. Data extraction - Some of the significant data identified in the third step may be incompatible with the analysis tools. For this reason, data that is not compatible with the instrument is extracted and transformed into a form compatible with the analysis tools to be used.

5. Data aggregation - In this step, data with the same fields in different datasets are integrated together to achieve a unified view.

6. Data analysis - Data analysis is the process of evaluating data using analytical and statistical tools to discover patterns or correlations. It is an iterative step, which means that the analysis process can be repeated until the desired results are discovered.

7. Data visualization - The results of the data analysis stage are then communicated graphically using tools such as Tableau, PowerBI and QlikView

8. Use of analysis results - The analytical results obtained are made available to the various stakeholders of the company to support the business decision-making process.

If before the advent of the Internet, data collection was often limited to daily sales - after the best product, you can now track the full course and behavior of the buyer, from the purchase history to his requests by his exposure to advertising.

The level of finesse of Big Data type analyzes (Sfetcu, 2019) can be exemplified by the following examples from the economic sphere: checking stock traceability, monitoring online transactions in the field of public utility services (taxes, social benefits programs, etc.), data analysis on employment (positions held, candidates' skills, online comments of employers on the professional level). These types of information that can be collected and analyzed through Big Data are considered by the World Economic Forum as a "new asset class".

The benefits of Big Data technology for economic research are (Tenenbaum, 2017):

1. improving the monitoring and forecasting of economic activity in areas such as tax collection, social programs, education or demography.

2. the use of new data to monitor the economic activity of the private sector, sometimes even in real time.

3. online searches can be economic indicators that can identify economic trends as they unfold.

4. the gradual availability of administrative and private data leads to better ways of measuring economic effects, especially with regard to the behavior of individual agents ('nanodata').

5. the correct perception of the effects of different policies and economic shocks.

6. switching from weekly data to data at a much higher frequency (minute), or to data on consumers or individual products, so that it is possible to detect details or variations at the micro level that would be more difficult to isolate and exploit with more aggregated data.

Statistical and machine learning techniques can help build more robust predictive models, especially in the field of empirical microeconomics (Maxime Hanssen, 2015).

In the insurance industry, the development of the ability to establish the profile of policyholders and to analyze risks pave the way for a new generation of "smart policies". They could be completely customized and adaptable to changing needs. At the same time, technological advances could make market access easier and lower for new entrants.

By correlation, personal scores are obtained. Lifestyle data determine the risk to be taken into account by insurers.

Examples of the use of technology that confirms the efficient and positive use of information provided by Big Data (Stanescu Mihaela, 2013):

1. The American courier company UPS used Big Data methods to optimize the routes of its trucks and the optimization solutions implemented led to substantial savings because the trucks traveled 48 million km less per year and consumed 11 million liters of less gasoline. The number of road accidents has also fallen.

2. In 2009, Google managed to apply the Big Data system to Internet search terms to find out how the H1N1 virus, which causes the swine flu epidemic, is spreading in real time in human communities.

3. The use of satellite images and data provided by various sensors allows the identification of risk areas for fires, for the occurrence of infrastructure problems and others.

Economists face three challenges in trying to master this technology: accessing this data, the ability to reproduce it, and developing the technical skills to manipulate it. The solutions to overcome these impediments are strengthening training in advanced computing and statistics and closer collaboration between big data companies and researchers working on Big Data.

2.2. Research on the adaptation of economic university education to modern technologies (big data, artificial intelligence, data analysis technologies)

The accounting profession is currently in a period of substantial changes. The classic way of carrying out the activity, the manual registration of operations, is obsolete. Under the sign of modern technologies, the professional accountant must adapt in order to be able to meet the demands of young entrepreneurs. This generation of entrepreneurs, raised with the phone in hand, no longer plans to walk the documents to the accountant for registration.

The modernization of the offer of accounting services is also observed from the economic management software applications, which from version to version improve the management of the activity of a financial-accounting department. In order to be able to use the tools of the 21st century, professional accountants need a solid knowledge base in understanding and using information and communication technologies. We live in a time when the digital economy is the main engine of growth. The vectors of this economy (fig. No. 3) are represented by emerging technologies (big data, artificial intelligence, etc.) that provide support for market anticipation and decision making.

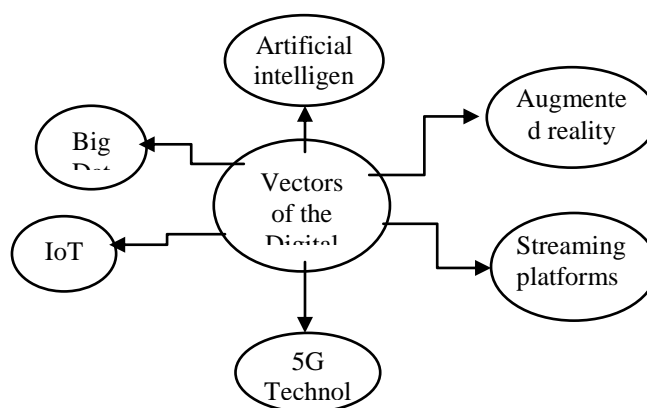


Fig. no. 3 The digital economy ecosystem

According to a study conducted by the authors (Groșanu et al., 2020) it was found that professional accountants use basic IT programs, without resorting to complex applications. Thus, 90% of respondents use simple accounting applications (SAGA) and at the same time 70% rely on Microsoft Excel as a suitable application in any situation that requires the manipulation and processing of data in the form of a table.

The use of new information technologies in accounting is expected to benefit from facilities such as: text recognition from physical documents, automation of operations, support in decision making. The 3 technologies that are common elements in any government strategy, Big Data, Artificial Intelligence and process automation could be integrated into the work of professional accountants as follows:

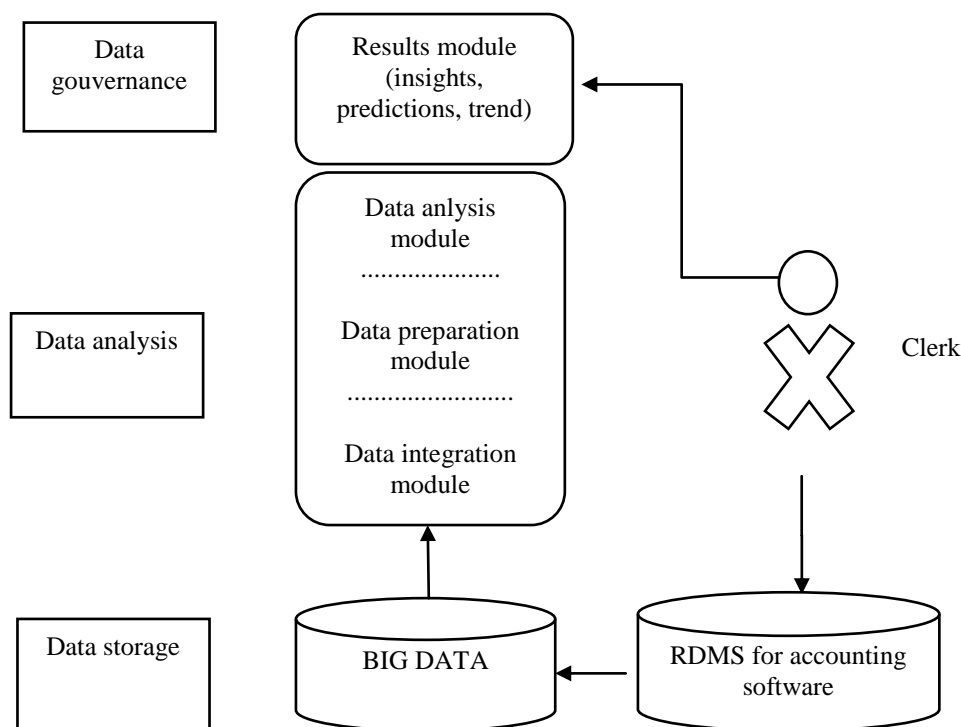


Fig. no. 4 Integration of Big Data, Artificial Intelligence and process automation in the activity of the professional accountant

Mastery of technologies related to methods and technologies specific to efficient processing of large volumes of data (big data), algorithms specific to machine learning and data extraction (machine learning, data mining) begins by assimilating the related notions in academic studies. Our research on this topic begins with a laborious documentation on the analytical program of the main faculties of economics in Romania (Academy of Economic Studies in Bucharest, Faculty of Economics and Business Administration at the West University from Timisoara and the Faculty of Economics and Business Administration Alexandru Ioan Cuza University from Iași). These strong university centers are doubled by a strong community of IT companies.

The analysis aimed to verify the content of curricula in order to validate the hypothesis that the top university centers have adapted their analytical curriculum to the technologies promoted by the IT industry. The practical part of the research focused on the study of discipline files from undergraduate and master's degree programs in accounting to prove the existence of curricular content that also specifies the existence of notions in the field of Big data, Artificial intelligence, business process automation.

The results of the study reveal that:

1. The Faculty of Economics and Business Administration within the West University from Timisoara has implemented two courses at the level of undergraduate studies (Information Systems Analysis, Accounting Information Systems) containing specific notions of Big Data and AI

2. The Faculty of Economics and Business Administration Alexandru Ioan Cuza University from Iasi has a master's program called Data Mining which contains a portfolio of disciplines that address the issue

3. The Academy of Economic Studies has several master's degree programs (e.g. Master's in Applied Statistics and Data Science) where it deals with the two topics considered.

The results of the study show the concern of economic education institutions for updating curricula by introducing disciplines containing notions of BIG DATA and / or AI, thus managing to comply with the requirements formulated by employers regarding the competencies of graduates. The subject is vast and we failed to research the curricula of several faculties of economics in Romania in an attempt to correlate the demand for specialists in the field of data analysis with the supply of graduates with economic profile.

In addition to research conducted in the three faculties of economics in traditional university centers, we found that the Employers' Association of the Software and Services Industry organizes ANIS scholarships for teachers who want to introduce / update courses in the portfolio (Big data, Cyber Security , Artificial Intelligence, Machine Learning, FinTech, HealthTech, Tech for All). The radiography of the awards (table no. 1) won by teachers during the 3 editions (2018-2020) with reference to courses in the field of artificial intelligence and Big Data proves that academics did not remain indifferent to the new trend in the world.

Table 1. Big Data courses introduced in the study programs of universities

Educational institution	2018 edition of ANIS scholarships	2019 edition of ANIS scholarships	2020 edition of ANIS scholarships
Babeş-Bolyai University	Award-winning Big Data course		Award-winning AI course (Computer Vision and Deep Learning)
Gheorghe Asachi Technical University		Award-winning Machine Learning course	
Timișoara Polytechnic University		Award-winning course of Machine Learning in the field of Bioinformatics	
București Polytechnic University	Award-winning AI course (Machine Learning)	Award-winning ML course	Award-winning Big Data Visualization course
Timișoara West University	Award-winning course in Artificial Intelligence and Machine Learning		

3. Conclusions

In the current period characterized by an openness to the adoption of technologies that simplify professional activity, Big Data has found a niche for acceptance and implementation in the activity of professional accountants. The main advantages that recommend this technology as the new "wizard" are: the use of the entire population of data in analysis, the emergence of cloud technologies, the orientation towards analysis, control and monitoring.

Big Data technology has reached maturity and its implementation in economic activities is favored by a combination of factors (accessible hardware and software resources, well-structured working methodologies) which leads us to say that the accounting profession will know in a reasonable horizon time a change in the framework for carrying out specific activities of registration of economic operations, analysis of results, risk management. At the same time, this technology, due to its interdisciplinary character, will determine a unification of the specializations that exist in the economic sphere, thus managing to create a professional capable of working with data regardless of their source.

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ACTIVITY BUDGET AND PERFORMANCE OF THE ENTITY OF PUBLIC INTEREST-INTEGRATED APPROACH

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Abstract: *The objective of managers to efficiently manage the activity and to improve the performance of public interest entities has led to the emergence and use of budgets. These are considered useful managerial tools in carrying out the activity, allowing the efficient allocation of limited resources, activity planning and coordination, communication of objectives, control of activities and motivation of subordinates.*

Key words: *budget system, budgeting, performance, public interest entity, structural analysis, revenue and expenditure budget.*

JEL Classification: *M41.*

1. Introduction

Budgeting is a complex process that takes place over several stages and involves the entire public interest entity, requiring a thorough communication and coordination between all its structures.

In a narrow view, according to the information collected from the literature, the performance of public interest entities involves achieving objectives or obtaining results superior to the chosen benchmark. Starting from these aspects, we can correlate budgets with the performance of public interest entities.

The connection between the two elements is very easy to achieve by the simple fact that budgets support the measurement of the performance of public interest entities. Moreover, budgets can be considered a benchmark in evaluating or determining performance.

2. Literature review

The literature abounds in studies that present the role, utility and advantages of using budgets as managerial tools. Budgets provide extraordinary opportunities for entities, transforming their goals and strategies into action plans, correlating short-term with long-term goals, and bringing together different levels of governance within organizations (see Libby & Lindsay, 2010). They are used for the operational planning of the activity, for the evaluation of the performances, for the communication of the established objectives but also for the formation of the strategy (Hansen & Van der Stede, 2004).

In addition to the fact that **budgets** allow goal setting, they promote the coordination and control of activities, but also accountability (see King et al., 2010). Moreover, by supporting the planning, coordination and control functions, the budgets support the improvement of the activity efficiency. Also, the use of budgets allows the entity to maintain a balance between revenues and expenditures, representing a formal process of allocating resources to meet the objectives set by the entity for a given period (Braga, 2006). Excessive expenses can affect the financial stability of the entity, while too small a budget can have an unfavorable impact on the competitiveness of the enterprise (Heidenberger et al., 2003). However, perhaps one of the most important responsibilities of the budget is to support or improve the performance of the entity. They are considered useful tools in obtaining financial results as high as possible (Ceaș, 2000) or in achieving financial performance objectives (Țurlea, Ștefănescu & Tănase, 2012).

According to studies conducted internationally, proper budgeting has a positive impact on the performance of the entity and employees (see King et al., 2010; Libby,

1999). If the budgeting technique takes into account the characteristics of the business, such as the size and structure of the entity, the strategy adopted and the perception of management on risk, performance tends to increase (King et al., 2010). Also, the adoption of a **participatory budgeting system**, accompanied by an explanation of subordinates when they do not have an impact on final budgets, positively influences performance (Libby, 1999). Other research conducted in the literature considers that the link between participatory budgeting and employee performance is made indirectly through other variables, such as role ambiguity, the dedication of subordinates and job satisfaction (see Chong et al., 2006).

3. Research methodology

The objectives of the research carried out include the identification of the state of knowledge in the field of budgeting the activity of public interest entities, the analysis of the participatory budgeting process, as well as the empirical testing of the use of budgets in the analysis of public enterprise activity. The study also proposes identifying the correlation between the **budgetary process and the performance** of public interest entities, but also defining a structural analysis model based on budgetary indicators and evaluating the performance of a public enterprise.

In order to achieve the mentioned objectives, it was resorted to the use of various **research methodologies**, such as those of fundamental, interpretative, empirical type but also of positivist type. Deductive and inductive research mechanisms were also used.

4. Budgeting - a complex process that involves, in its entirety, the public enterprise

The literature discusses three main actors involved in the budget process: **general management, managerial accounting and responsibility centers** (Caraiani et al., 2010). The role of the general management is to establish the strategies and objectives of the entity, which the responsibility centers will consider in the elaboration of the first budget variants, but also to approve the final budgets. **Managerial accounting** transmits to the responsibility centers the main hypotheses regarding the external and internal changes that can take place, and which can influence the budgets, ensures the coherence and reliability of the budgets, acting at the same time as a link between the management and the responsibility centers. The role of the **responsibility centers** is to draw up, negotiate and execute budgets.

Analyzing in depth this topic, we find that those involved in budgeting are the budget committee, budget managers, the controller, the financial director and the financial-accounting department (Băluță, 2005).

The main departments that provide useful data for the preparation of budgets are: financial-accounting department, mechanical-energy department, commercial department, logistics department, human resources department, technological design and production department, quality management and environmental protection department, administrative department (Băluță, 2005).

In order to obtain all the information necessary for the elaboration of the budgets, those involved in this process must know, in addition to the departments that can provide them this data, also the documents in which they are included. The information sources of the budgets and the existing links between them are presented, schematically, in figure no.1:

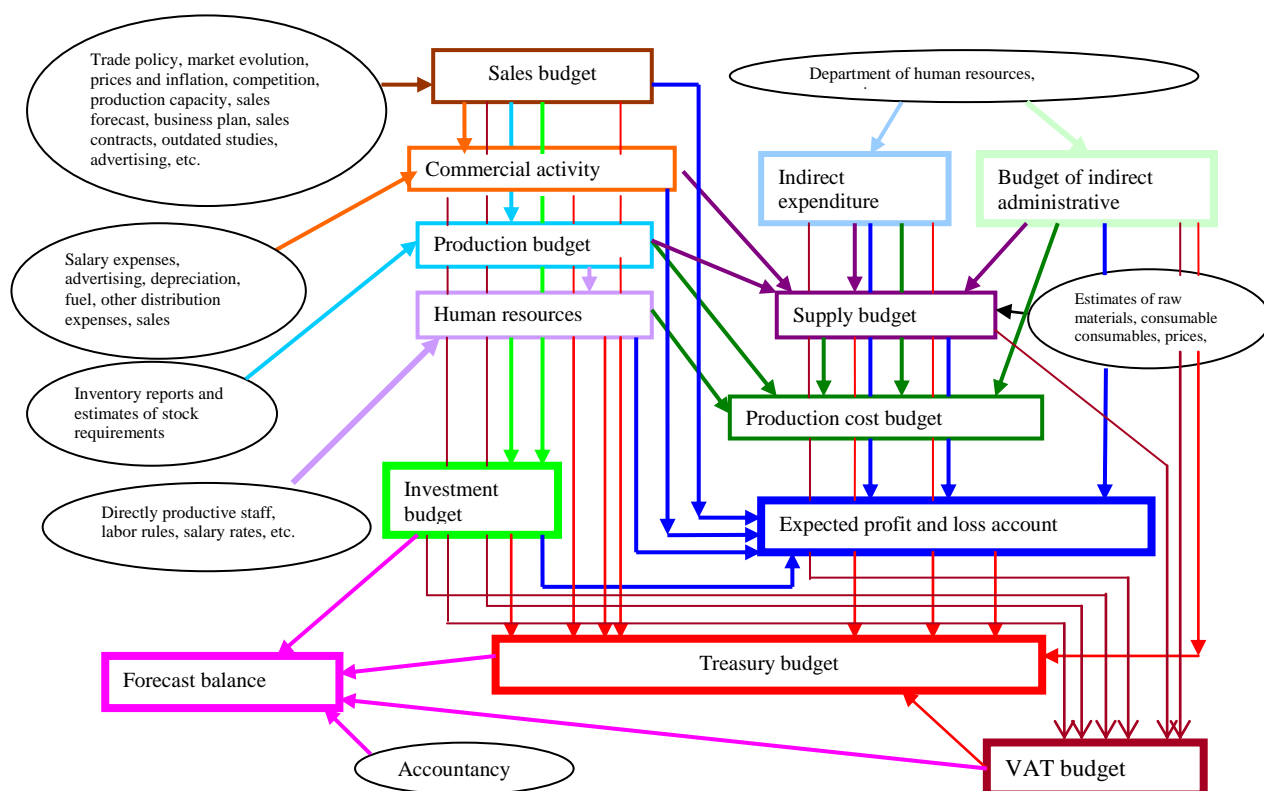


Fig. no.1: The information sources of the budgets and the existing links between them
Source: own conception

5. Activity budgeting and public enterprise performance - integrated approach.

International studies present budgets as recognized tools for achieving higher financial results (Ceaus, 2000), which contribute to increased efficiency (Chadwick, 1998), especially through planning and coordination (Hansen et al., 2003) and which support the achievement of the entity's objectives, such as increasing performance, improving liquidity, profitability, etc. (Dumitru, 2005).

First, budgets allow the setting of objectives of economic entities for a predetermined future period. Thus, they influence performance in two ways. The first aims at the capacity of the budgets to act as a reference in the development of the activity, guiding the managers in the adoption of the decisions, so that the obtained results are in accordance with the established objectives. Achieving goals is an indication of performance (see Gruman & Saks, 2001; Tabără et al., 2007; Verboncu & Zalman, 2005; Folan et al., 2007). And as budgets support their achievement, we can say that they support achieving the desired performance. The second way in which this feature of budgets influences performance is to use them as a benchmark for evaluating results. For an entity to be considered successful, its results must be superior to a benchmark chosen for evaluation. And budgets allow the quantification of performances (see Verbeeten & Boons, 2009) by comparing the results actually recorded by the entity by carrying out the activity with the predetermined objectives. Negative deviations can be a failure to achieve the performance desired by management. Instead, the positive deviations provide an indication of superior performance.

Secondly, being managerial tools, budgets are not only a reference in carrying out the activity and evaluating performance, but also contribute to their management. The budgets allow the estimation and management of the future financial performance of the economic entity, by forecasting the total revenues, the total expenses, the turnover to be obtained or the profit to be realized during the analyzed period. By knowing the essential objectives that will need to be achieved to achieve the desired performance, the entity can control or manage future performance.

We thus arrive at another feature of budgets that supports the improvement of performance, namely the ability of these tools to support the detection of deficiencies and to allow the adoption of corrective measures to remedy them in a timely manner. estimated through budgets. In this way, deviations are identified that negatively affect the activity and the performance obtained. Once these irregularities have been identified, management can establish and adopt corrective measures to enable it to effectively manage its business and still achieve its pre-established objectives. In addition, the budgets and their execution, support the management in adopting decisions that allow it to carry out its activity in conditions of efficiency and effectiveness and to obtain superior performances. According to the ideas published in the literature, the substantiation of decisions and the increase of performances can be achieved through budget planning and analysis of budget deviations (Popescu, 2006).

However, budgets do not only support improvement, but also performance evaluation. This is done by analyzing the results actually recorded compared to the budgetary targets.

The influence of budgets on the entity's performance can also be achieved indirectly, through other elements that create a link between the two variables.

The literature discusses the impact that the participatory budgeting process has on the performance of subordinates. The impact of participatory budgeting on employee performance is achieved through the exchange of information (Parker & Kyj, 2006), the correctness or adequacy of budgets (Nouri & Parker, 1998), through role ambiguity (see Parker & Kyj, 2006; Chong et al., 2006), through employee satisfaction, through the dedication that employees feel towards the organization, through acceptance of objectives (Renn, 1998), or through the importance given to budgets in performance evaluation (Lau & Tan, 1998).

The links between budgets and the performance of the activity or the way in which budgets influence the performance of public entities are presented in Table no.1.

Table no.1. Budgets and performance of activity in public enterprises

Elements of influence	Impact on the entity's performance
Budgets and their characteristics	
<i>Budgets allow the achievement of set objectives</i>	The entity's objectives are set through budgets. These managerial tools present the company's action plans, guide the development of the activity and support the achievement of objectives. Any performance implies the achievement of objectives. Thus, budgets allow for improved performance. Moreover, they can be considered a benchmark in their evaluation, by comparing the results actually recorded with the budgetary objectives.
<i>Budgets allow estimating and managing financial and non-financial performance</i>	The budgets estimate the entity's revenues and expenses, as well as the non-financial indicators that the company will have to meet in order to achieve the financial objectives. Thus, the budgets actually predict the performance of the economic entity (profit, turnover, total revenues, etc.). In this way, the company knows the objectives it has to achieve in order to obtain the desired performance. Such planning allows for optimal management and the exercise of effective control over future performance.


<i>Budgets help in planning and coordinating the activity</i>	The planning and coordination of activities, through budgets, supports the achievement of the entity's objectives and the efficient conduct, in optimal conditions, of the activity. Thus, the obtained performances are ensured.
<i>Budgets ensure efficient management of resources</i>	Budgets allow efficient management of the limited resources available to the entity. Thus, they support obtaining a maximum performance with a minimum of effort and without losses. We can say that budgets ensure in this way the maintenance of a balance between effectiveness and efficiency, as well as the achievement of a saving of resources, all these being attributes of performance.
<i>Budgets determine the establishment of authority and responsibility</i>	The responsibility of the subordinates regarding the execution of the budgets determines the achievement of the budgeted values, the fulfillment of the established objectives and the motivation of the employees and managers. All this leads to improved performance.
<i>Budgets help motivate subordinates</i>	Budgets motivate subordinates to achieve the results estimated by management. Thus, by achieving the estimated objectives, the performance obtained by the entity increases.
<i>Budgets increase employee performance</i>	The desire to achieve budgeted values motivates subordinates, who work harder and are more involved. In this way, the performances obtained by them and implicitly the performance of the entity are improved.
<i>Budgets allow for the detection of deficiencies and the adoption of corrective measures</i>	Budgets, together with budget execution, allow deficiencies to be detected by comparing actual results with budgetary targets. Their identification supports the adoption of corrective measures so that the entity's performance is not affected.
<i>Budgets are considered decision-making tools</i>	Based on budgets and the detection of deficiencies, decisions are taken to improve business performance and performance. These decisions are intended to support performance management.
<i>Budgets allow for effective control</i>	Control ensures compliance with budgets and thus achieving the desired performance.
<i>Budgets support the effectiveness, efficiency, economy and competitiveness of the entity</i>	Effectiveness is achieved through the ability of budgets to support the achievement of objectives. Efficiency is supported by budgets by controlling resources, preventing losses and waste, and supporting achieving maximum effects with available resources. In terms of economy, budgets allow, through the estimates they include, planning for the acquisition of the necessary resources at the lowest cost, as well as their efficient use. Moreover, these considerations, together with other budgetary features such as investment and innovation management, may allow the entity to maintain its competitive advantage over competition.
<i>Budgets allow performance evaluation by comparing actual results with benchmarks set by budgets</i>	Performance does not just have to be measured. The values of the indicators do not tell us anything if we do not refer to certain reference quantities. In our case, performance can be analyzed by comparing the values obtained with those estimated by budgets. Thus, we can say that budgets can be considered a benchmark in evaluating performance.
Participatory budgeting	
<i>Participatory budgeting allows for efficient allocation of resources</i>	The involvement of subordinates in the budgeting process allows an efficient allocation of resources based on the information received from them. The entity's performance increases when resources are not wasted.
<i>Participatory budgeting allows the elaboration of budgets with a high degree of accuracy</i>	Subordinates can provide superiors with useful information in the preparation of budgets, information known only to them as a result of direct involvement in the activity carried out. This leads to more relevant budgets and, in conclusion, to improved performance.
<i>Participatory budgeting reduces the ambiguity of the role of employees</i>	Communication between employees and management allows an efficient exchange of information, thus leading to the clarification of work tasks. Clarifying the role of subordinates allows to increase their performance.
<i>Participatory budgeting motivates subordinates</i>	The involvement of subordinates in the decision-making process gives them a sense of control over the final budgets. Thus, they will be more motivated to achieve the objectives to which they have contributed, and individual performance will increase.

<i>Participatory budgeting improves employee satisfaction</i>	Involving employees in budgeting gives them a sense of satisfaction. This can lead to improved individual performance especially through the dedication that subordinates can feel.
<i>Participatory budgeting increases subordinates' loyalty to the entity</i>	If subordinates participate in decision-making, they will consider management, procedures and budgets to be correct. This will improve trust and loyalty to the entity. Employees will work harder to achieve the desired performance and thus their performance will improve.
<i>The participatory budgeting system supports the improvement of subordinates' performance</i>	Participatory budgeting supports obtaining adequate budgets, improves employees' confidence in the budgeting and budgeting process, reduces the ambiguity of the role of subordinates, motivates employees and contributes to increasing their satisfaction and dedication. These aspects will allow the participatory budgeting system to favorably influence the performance of subordinates. We believe that improving the performance of hoses will later lead the entity to achieve superior performance. The positive effects of participatory budgeting on performance are accentuated by giving an explanation to subordinates if they cannot influence final budgets, by achieving participation at higher hierarchical levels, by using a results-based control system and by having a high level of knowledge. by cost management. The impact of participatory budgeting on performance is also influenced by the importance given to budgets in evaluating performance, but also by the degree of difficulty of work tasks.
The budget of non-financial objectives	
<i>Defining and using a budget for non-financial objectives improves subordinates' confidence in the budget process</i>	The use of non-financial performance evaluation indicators increases the degree of trust of subordinates in the correctness and accuracy of the evaluation process. Thus, they will be satisfied, motivated and will be dedicated to achieving the entity's objectives.
<i>The non-financial objectives budget supports performance analysis and management</i>	The use of non-financial indicators will improve the analysis and management of performance, providing the entity with additional information on the results recorded compared to management's expectations.
<i>The budget of non-financial objectives allows the connection of budgets to the entity's strategy</i>	Using a budget of non-financial objectives will allow the entity to create a link between strategy, planning and performance evaluation.
<i>The budget of non-financial objectives is useful in high conditions of environmental uncertainty</i>	The use of a budget of non-financial objectives will allow the entity to focus on customers, product quality and efficiency, innovation, etc. These aspects will support the development of the entity in a business environment dominated by uncertainty.
<i>The budget of non-financial objectives supports the achievement of operational objectives and financial performance</i>	The budget of the non-financial objectives will present the conditions that the entity will have to meet in order to be able to achieve the financial objectives foreseen through the budgets. Thus, the development and use of such a budget will support the achievement of operational objectives and financial performance.

Source: own conception.

6. Structural analysis of budgetary indicators and performance evaluation in a public enterprise

In order to highlight the importance of the BVC in the governance of a public enterprise "IP" but also of the role of relevant financial-accounting information, a structural analysis and the degree of achievement of budgetary indicators are presented (approved by Government Decision related to budget execution 9 months, respectively 30.09.2020).

 The situation of achieving the economic-financial indicators of the public enterprise "IP" on 30.09.2020, compared to the B.V.C. on the same date, is as follows:

on 30.09.2020 “IP” registers a gross profit in the amount of 340,438.19 thousand lei positive result

obtained as the difference between the total registered revenues amounting to 1,997,495.10 thousand lei and the total registered expenses amounting to 1,657,056,91 thousand lei, respectively a net profit amounting to 293,467.33 thousand lei, resulting from the decrease of the gross profit with the value of the profit tax amounting to 46,970.86 thousand lei;;

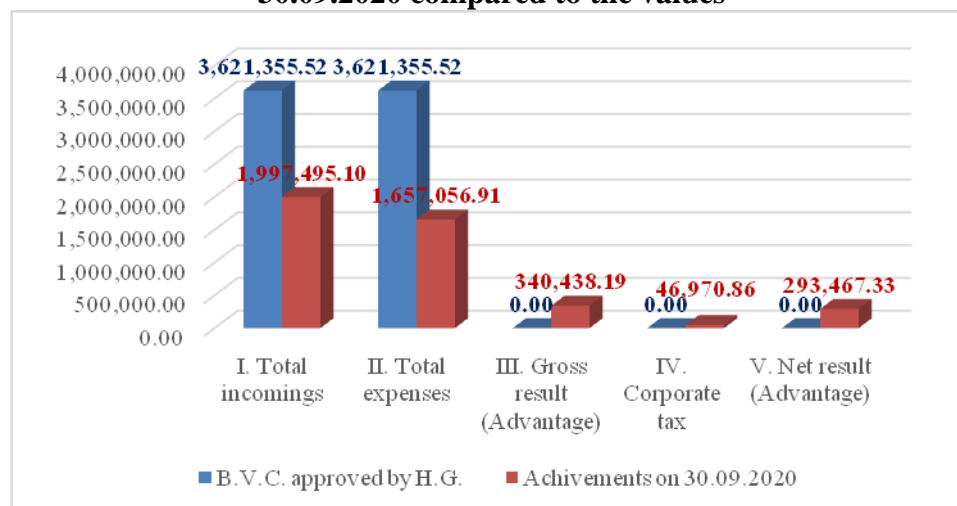
the total of class 7 “Revenues” (from the verification balance) is decreased by the value registered on 30.09.2020 for the indicator “Revenues from provisions regarding the operating activity”, and the total of class 6 “Expenses” (from the verification balance) is decreased considering the inclusion of the indicators “Revenues from provisions regarding the exploitation activity” in the amount of 68,509.78 thousand lei, respectively the indicator “Expenses with the profit tax” in the amount of 46,970.86 thousand lei;

the comparative situation regarding the achievements registered on 30.09.2020 compared to the values allocated by B.V.C. on the same date, it is as follows:

[thousand lei]

Indicator	B.V.C. on 30.09.2020 approved cf. H.G.	Achievements on 30.09.2020	The difference	%
0	1	2	3=2-1	4=2/1*100
I. Total income	3.621.355,52	1.997.495,10	-1.623.860,42	55,16
II. Total expenses	3.621.355,52	1.657.056,91	-1.964.298,61	45,76
III. Gross result (Profit)	0,00	340.438,19	340.438,19	
IV. Tax profit	0,00	46.970,86	46.970,86	
V. Net result (Profit)	0,00	293.467,33	293.467,33	

Graph no.1. The comparative situation regarding the achievements registered on 30.09.2020 compared to the values



Source: own conception.

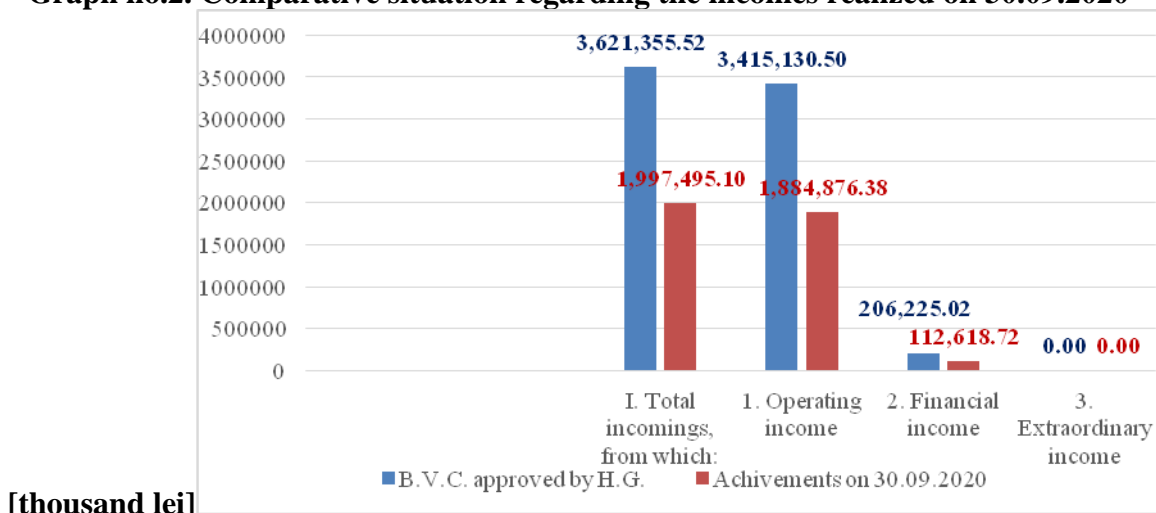
the situation of the total incomes realized on 30.09.2020 is presented as follows:

[thousand lei]

Indicator	B.V.C. on 30.09.2020 approved cf. H.G.	Achievements on 30.09.2020	The difference	%
0	1	2	3=2-1	4=2/1 *100
I. Total income, of which:	3.621.355,52	1.997.495,10	-1.623.860,42	55,16

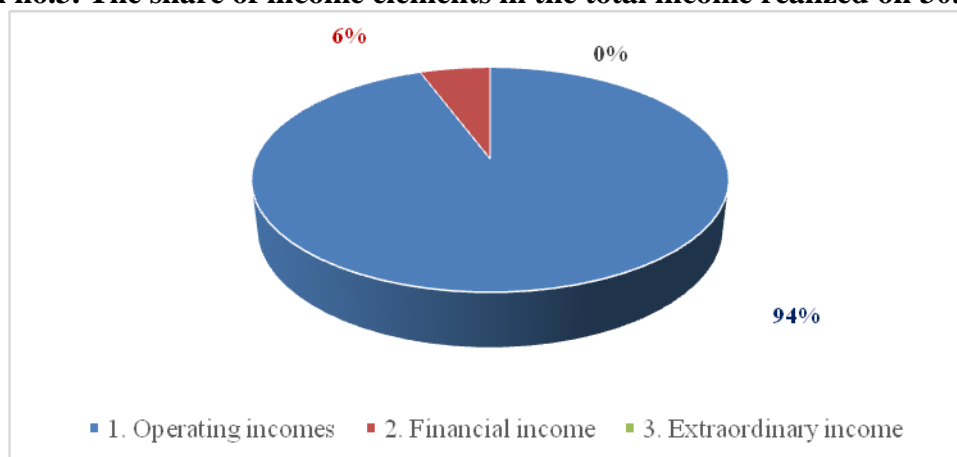
1. Operating income	3.415.130,50	1.884.876,38	-1.530.254,12	55,19
2. Financial income	206.225,02	112.618,72	-93.606,30	54,61
3. Extraordinary income	0,00	0,00	0,00	0,00

Graph no.2. Comparative situation regarding the incomes realized on 30.09.2020-



Source: own conception.

Graph no.3. The share of income elements in the total income realized on 30.09.2020



Source: own conception.

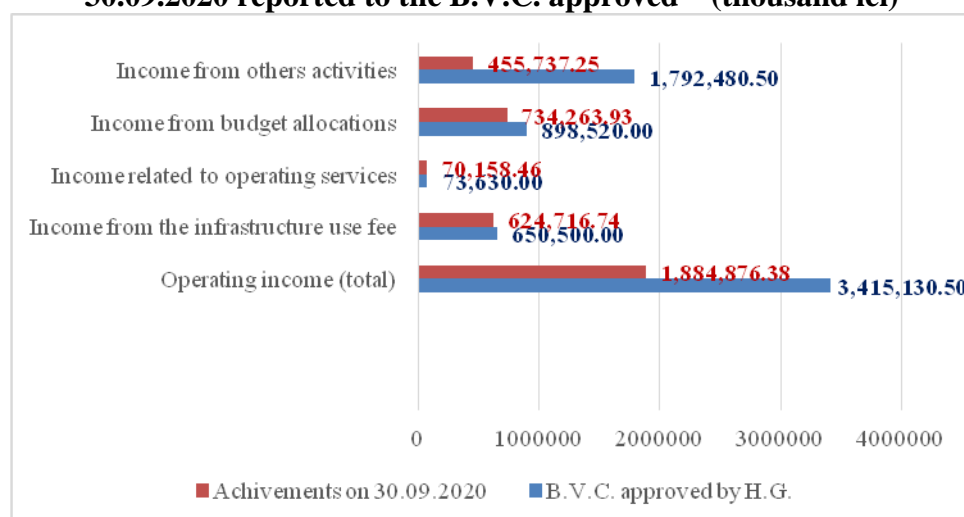
on 30.09.2020 the total revenues were realized in a percentage of 55.16% compared to the value programmed by B.V.C. approved for 2020. We specify that the total of class 7 “Revenues” (from the verification balance) is decreased by the value registered on 30.09.2020 for the indicator “Revenues from provisions regarding the exploitation activity” in the amount of 68,509.78 thousand lei; operating income was realized on 30.09.2020 in a percentage of 55.19% compared to the value allocated by BVC for the same date, which represents a non-realization in percentage of 44.81% of the value allocated by B.V.C. for the same period, non-realization that comes mainly from the indicator “Income from investment subsidies” for which on 30.09.2020 the value of 1,653,803.70 thousand lei was allocated and the value of 227,553.53 thousand lei was registered . Operating revenues have the highest share in the total revenues realized on 30.09.2020, whose value of 1,884,876.38 thousand lei and represents 94.36% of the total revenues recorded in this period;

the comparative situation of the operating income realized on 30.09.2020 against B.V.C. it looks like this:

[thousand lei]

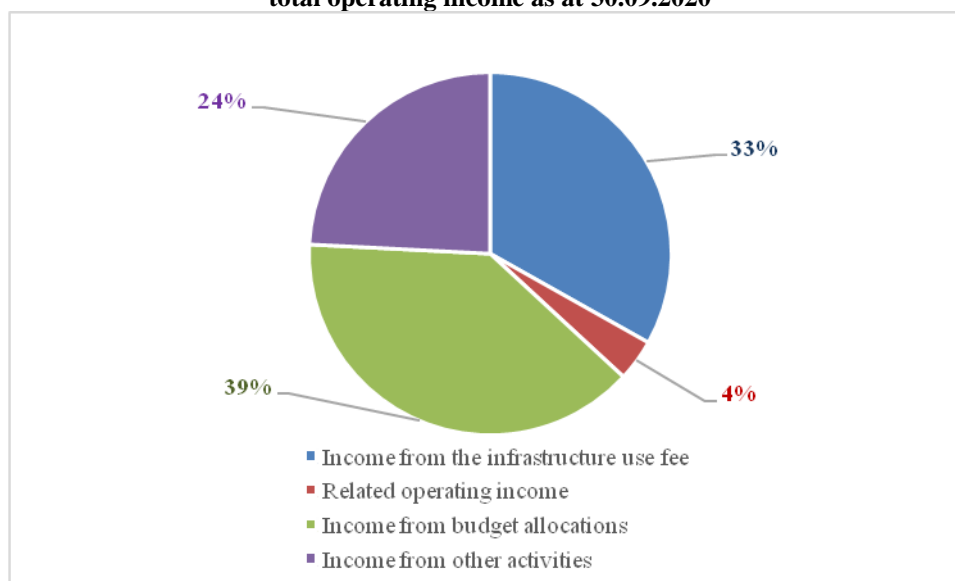
Indicator	B.V.C. on 30.09.2020 approved cf. H.G.	Achievemens on 30.09.2020	The difference	%
0	1	2	3=2-1	4=2/1*100
Operating income	3.415.130,50	1.884.876,38	-1.530.254,12	55,19
- revenues from the infrastructure use fee	650.500,00	624.716,74	-25.783,26	96,04
- income from services, other operating activities	73.630,00	70.158,46	-3.471,54	95,29
- revenue from budget allocations for infrastructure, of which:	898.520,00	734.263,93	-164.256,07	81,72
o for current repairs	40.800,00	3.012,00	-37.788,00	7,38
o for maintenance	857.720,00	731.251,93	-126.468,07	85,26
- income from other activities	1.792.480,50	455.737,25	-1.336.743,25	25,42

Graph no.4. Comparative representation (in structure) of operating income on 30.09.2020 reported to the B.V.C. approved – (thousand lei)



Source: own conception.

Graph no.5. The share in the structure of the income elements in total operating income as at 30.09.2020



Source: own conception.

✚ as of 30.09.2020, the revenues from the infrastructure use tariff are in the amount of 624,716.74 thousand lei, representing a percentage of 96.04% compared to the value allocated by B.V.C. for the same period, respectively a percentage of 33.14% of the total operating income registered in this period;

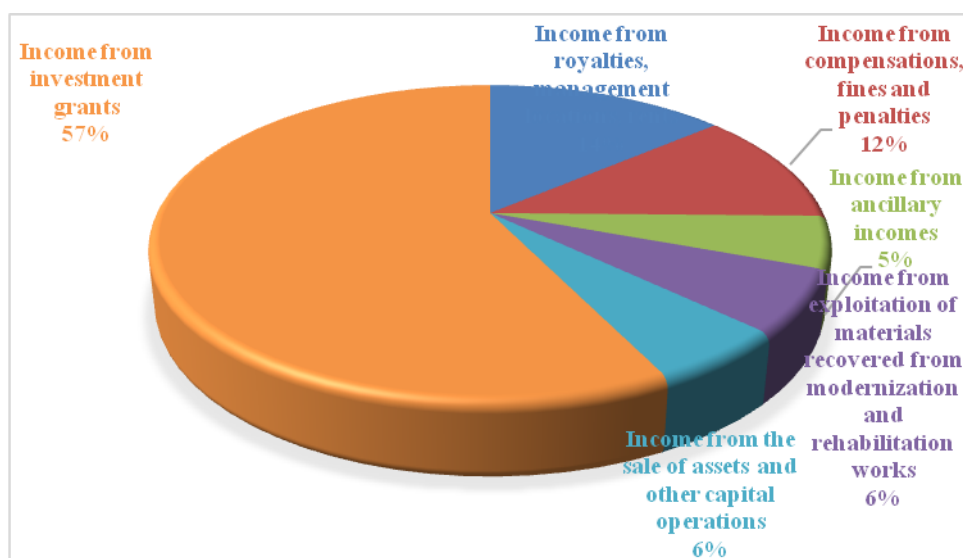
✚ revenues from services are in the amount of 70,158.46 thousand lei, representing a percentage of 95.29% compared to the value allocated by B.V.C. for the same period, respectively a percentage of 3.72% of the total operating revenues recorded in this period;

✚ the revenues from budgetary allocations for infrastructure are in the amount of 734,263.93 thousand lei, representing a percentage of 81.72% compared to the value allocated by B.V.C. for the same period, respectively a percentage of 38.96% of the total operating income registered in this period and are related to the budget title "Maintenance of public railway infrastructure" as well as the budget title "Transfers for current repairs to public railway infrastructure";

✚ on 30.09.2020 the revenues from other activities were realized in a percentage of 25.42% compared to the value allocated by B.V.C. for the same period, respectively in a percentage of 24.18% of the total operating income registered in this period;

✚ within the element "Revenues from other activities" whose value registered on 30.09.2020 is of 455,737.25 thousand lei, the following elements are mainly highlighted:

Graph no.6. The structure of the income element from other activities performed on 30.09.2020



Source: own conception.

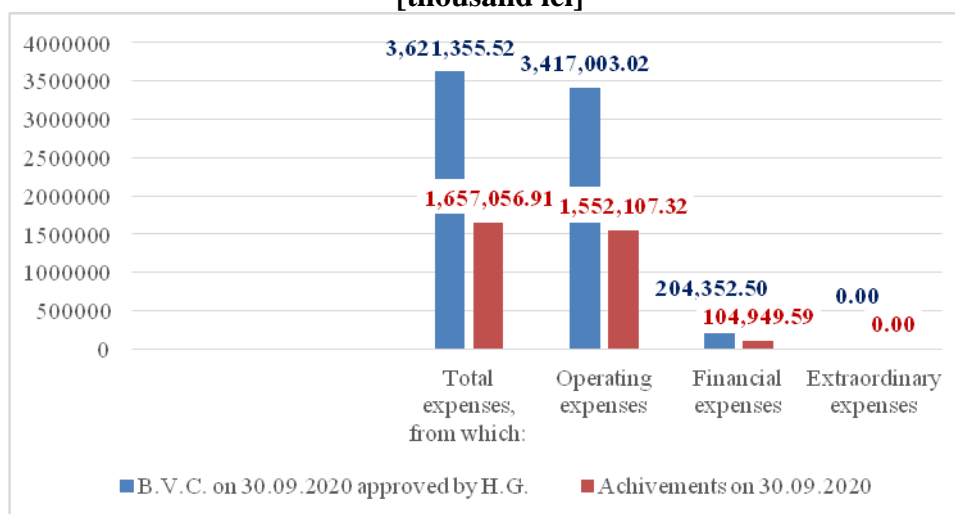
[thousand lei]	
Indicator	Achievements on 30.09.2020
- royalties, management locations, rents	54.730,34
- income from compensations, fines and penalties	45.701,83
- income from ancillary activities	21.133,33
-revenues from operating materials recovered from modernization and rehabilitation works	25.622,54
- income from the sale of assets and other capital operations	22.450,24
- income from investment grants, of which:	227.553,53
- transition to public patrimony	219.661,48

- ✚ financial income amounting to 112,618.72 thousand lei represents 5.64% of the total income registered on 30.09.2020 coming from exchange rate differences;
- ✚ the situation of the total expenses realized on 30.09.2020, is presented as follows:

[thousand lei]				
Indicator	B.V.C. on 30.09.2020 approved cf. H.G.	Achievements on 30.09.2020	The difference	%
0	1	2	3=2-1	4=2/1*100
Total expenses, of which:	3.621.355,52	1.657.056,91	-1.964.298,61	45,76
operating expenses	3.417.003,02	1.552.107,32	-1.864.895,70	45,42
financial expenses	204.352,50	104.949,59	-99.402,91	51,36
extraordinary expenses	0,00	0,00	0,00	0,00

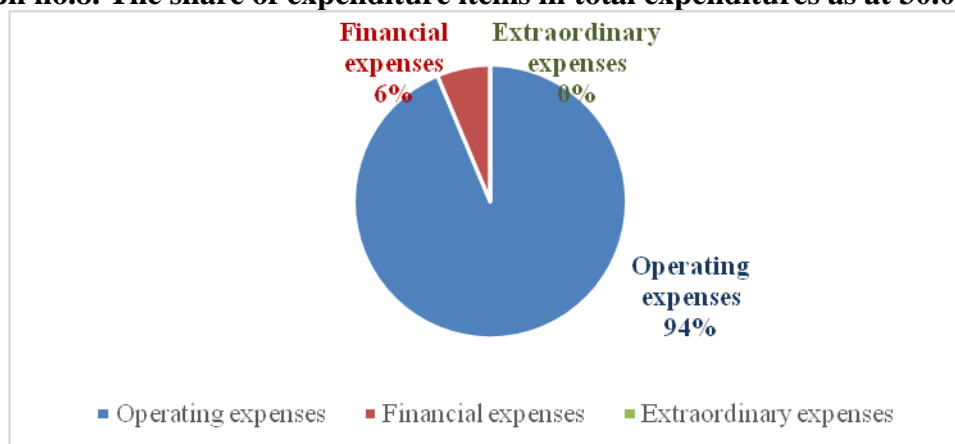
✚ on 30.09.2020 the total expenses were made in a percentage of 45.76% compared to the value programmed by B.V.C. approved for 2020. The total of class 6 (from the balance of verification) is diminished considering the inclusion of the indicators “Revenues from provisions regarding the operating activity” in the amount of 68,509.78 thousand lei, respectively the indicator “Income tax expenses” in the amount of 46,970.86 thousand lei;

Graph no.7. Execution of expenses on 30.09.2020 vs. B.V.C. approved on 30.09.2020 - [thousand lei]



Source: own conception.

Graph no.8. The share of expenditure items in total expenditures as at 30.09.2020



Source: own conception.

- ✚ operating expenses were 45.42% of the value allocated by the B.V.C., which represents a saving of 54.58% of the value allocated by the B.V.C. for the same period;
- ✚ operating expenses have the highest share in the total expenses incurred on 30.09.2020, whose value of 1,552,107.32 thousand lei represents 93.67% of the total expenses incurred during this period (in this phase of analysis may detail the structure of the expenditure in question);
- ✚ the expenses with goods and services are in the amount of 360,841.62 thousand lei on 30.09.2020 and represent a percentage of 23.25% of the total operating expenses recorded on this date;
- ✚ within the budgetary analysis by elements of expenditure can be analyzed the structure and the degree of realization of the expenses with services performed by third parties, insurance and security expenses, expenses with professional training, expenses with revaluation of tangible and intangible assets, losses from receivables, tax expenses, taxes and similar payments, staff costs, etc.;
- ✚ both the analysis of the revenues and of the expenses registered on 30.09.2020 can be done also in terms of operational and non-operational revenues or in terms of operational expenses and non-operational expenses;

✚ the gross result on 30.09.2020: the public enterprise “IP” registers on 30.09.2020 a gross profit in the amount of 340,438.19 thousand lei, result obtained as a difference between the total registered revenues amounting to 1,997,495.10 thousand lei and the total registered expenses amounting to 1,657. 056.91 thousand lei. The total of class 7 “Revenues” (from the verification balance) is decreased by the value registered on 30.09.2020 for the indicator “Revenues from provisions regarding the operating activity”, and the total of class 6 “Expenses” (from the verification balance) is diminished considering the inclusion of the indicators “Revenues from provisions regarding the exploitation activity” in the amount of 68,509.78 thousand lei, respectively the indicator “Expenses with the profit tax” in the amount of 46,970.86 thousand lei;

✚ the net result on 30.09.2020:

the public enterprise “IP” registers on 30.09.2020 a net profit in the amount of 293,467.33 thousand lei, resulting from the decrease of the gross profit in the amount of 340,438.19 thousand lei with the value of the profit tax in the amount of 46,970.86 thousand lei;

✚ efficiency indicators:

Nr. crt.	Explanations	B.V.C. on 30.09.2020 approved by H.G.	Achievements on 30.09.2020	%
0	1	2	3	4=2/3*100
1.	Total expenses per 1000 lei total income	1.000,00	829,50	120,55
0	1	2	3	4=3/2*100
2.	Labor productivity in value units per average average staff (thousand lei / person)	109,56	51,05	46,60
3.	Average number of employees	22.925	22.535	98,30
4.	Number of staff	23.468	22.971	97,88

✚ on 30.09.2020 “IP” registers arrears amounting to 52,722.20 thousand lei compared to the value of 72,933.44 thousand lei allocated by B.V.C. for the same period;

✚ the public enterprise “IP” registers on 30.09.2020 outstanding receivables in the amount of 1,228,193.88 thousand lei compared to the value of 1,099,744.21 thousand lei allocated by B.V.C. for the same period and also an analysis of the evolution of receivables can be made during the analyzed period. In the case of receivables not paid at maturity, “IP” issues invoices for penalties according to the contractual provisions and legal provisions in force. Moreover, “IP” has permanently in view the recovery of receivables for which it sends payment notifications, payment notices, summonses, prepares legal and / or criminal files, as the case may be. If “IP” registers reciprocal receivables and payables with various legal entities, carries out collection and payment operations through compensation, and for clients in insolvency proceedings, “IP” enters the credit table with the amount it has of recovered from them;

✚ management through the budget system allows monitoring the situation broken down by month of existing staff and the average number of staff in 2020.

7. Conclusions

Identifying the factors that should be taken into account in the preparation of budgets and that will influence the activity of an entity is essential, especially due to the impact that budgets can have on its performance. Performance is the fundamental objective of public interest entities, and the way in which they design their budgetary system will affect, among others, the results registered in the development of the activity.

Budgets can have a positive influence on the performance of public entities through their ability to support the achievement of objectives, along with planning and coordinating activity, but also to allow resource management, financial and non-financial performance.

It is also noted that budgets have a role in establishing the authority and responsibility of subordinates, in motivating them, in implementing effective control, in detecting and correcting deviations and in making decisions and evaluating results can contribute to increasing the performance of employees and public entities.

In our opinion, the efficiency of the results of public entities can also be supported by the use of a budget of non-financial objectives. It will support performance analysis and management, connect budgets to the entity's strategy, help achieve operational objectives and financial performance, and help increase subordinates' confidence in the budgeting and evaluation process..

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THE PROBLEM OF HAZARDOUS WASTE MANAGEMENT IN THE REPUBLIC OF MOLDOVA

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Abstract: *In recent years, the problem of hazardous waste management has been very acute in the Republic of Moldova and is getting even worse. This situation is caused by important changes in the national economy, such as: privatization or bankruptcy of large industrial enterprises, changing the spectrum of economic units, with the prevalence of small and medium enterprises, implementation of advanced technologies, application of new chemicals, use of pesticides and other harmful substances in agriculture, etc. The amount of waste we generate is closely linked to our consumption and production patterns. At the same time, demographic changes, such as the increase in the number of single-person households, also affect the amount of waste we generate. In the context of these realities, a major risk problem for the health of the environment and the population is generated by toxic waste, stored in industrial landfills, of former enterprises. The most important challenge facing the authorities is to minimize the impact of hazardous waste on the population and the environment. Thus, risk minimization is possible only through an efficient and correct management of waste of any kind. In the study, the author aimed to analyse and evaluate the management of hazardous waste, to identify the most important problems and risks to the health of the population. This study was developed within the State Program 20.80009.0807.22 Development of the mechanism for the formation of the circular economy in the Republic of Moldova.*

Keywords: *circular economy, toxic waste, environment, recycling, waste hierarchy.*

JEL Classification: *Q54, Q57, Q58.*

1. Introduction

The crisis caused by Covid-19 mitigates part of the impact of economic activities on the environment and climate. Thus, waste management is a major problem for countries in their anti-pollution actions, including for the Republic of Moldova. The most effective way to solve this problem is proper waste management through the existence of a legislative framework that establishes a series of rules on efficient waste management.

In recent years, many of the products consumed become waste in a very short time. At the same time, resource consumption has increased significantly in the context in which the application of sustainable practices has been taken into account for a very long time. As an example, the amount of plastic produced in the last decade exceeds that produced in a century (1950 - 1.5 million and in 2018 - 359 million). Thus, it is absolutely necessary to implement and apply at national level sustainable production and consumption patterns, which will make it possible to decouple economic growth from resource consumption. This decoupling is possible by reducing the consumption of primary sources in the production process by reusing the products, respectively by expanding the share of reused and recycled materials.

Therefore, the circular economy is an alternative to a traditional linear economy (do, use, throw away) in which the value of products, materials and resources is kept in the economy for as long as possible and waste production is kept to a minimum.

2. Waste management policy in the European Union

In recent years, the European Union has adopted a number of key measures that have been taken in areas such as food waste, green design, organic fertilizers, guarantees

for consumer goods, innovation and investment, etc. All these initiatives are important to support the circular economy that covers the entire value chain, from production to consumption, waste management and the use of secondary raw materials.

Waste management policy in the EU has been set out in the circular economy mini-package which addresses specific waste management issues:

- Communication on a European strategy for plastics in the context of the transition from a linear to a circular economy - COM (2018) 28
- Communication on the interface between legislation on chemicals, products and waste COM (2018) 32
- Monitoring framework on the circular economy COM (2018) 29.

The Waste Framework Directive, together with other EU Waste Directives (on waste disposal, end-of-life vehicles, waste electronic devices, batteries, packaging waste, etc.) includes specific objectives. For example, by 2020, each EU country had to recycle half of its municipal waste and by 2016, 45% of batteries had to be collected and by 2020, 70% of non-hazardous construction and demolition waste (mass) had to be recycled or recovered.

Regarding the regulation of waste management at EU level, a number of legislative acts have been adopted. Therefore, the main waste directives are:

- Directive (EU) 2018/849 of 30 May 2018 amending Directive 2000/53 / EC on end-of life vehicles;
- Directive 2006/66 / EC on batteries and accumulators and waste batteries and accumulators;
- Directive 2012/19 / EU on waste electrical and electronic equipment;
- Directive (EU) 2018/850 of 30 May 2018 amending Directive 1999/31 / EC on landfills;
- Directive (EU) 2018/851 of 30 May 2018 amending Directive 2008/98 / EC on waste;
- Directive (EU) 2018/852 of 30 May 2018 amending Directive 94/62 / EC on packaging and packaging waste.

The revised legislative framework on waste entered into force in July 2018. Thus, after amending Directive 2008/98 / EC, the main objective of the new Directive 2018/851, according to Article 1 is to establish "measures to protect the environment and health of the population by preventing or reducing the generation of waste, the adverse effects of waste generation and management and reducing the overall effects of resource use and increasing the efficiency of their use, which are essential for the transition to a circular economy and to guarantee the Union's long-term competitiveness. "

In this Directive, art. 5 specifies the correct management of waste by "using economic instruments and other measures in order to provide incentives for the application of the waste hierarchy, or other appropriate instruments and measures."

The main objective of the communication is to harness the energy of waste used for waste treatment by (ensuring energy recovery from waste in the EU) supporting the objectives of the circular economy action plan and strictly following the waste hierarchy established by the EU.

The waste hierarchy is the cornerstone of EU waste policy and legislation and a key element in the transition to the circular economy. Its main purpose is to establish an order of priority that minimizes the adverse effects on the environment and optimizes the efficient use of resources in waste prevention and management operations.

Following the above, the revised legislative framework on waste under Directive 2018/851, in order to move to a European circular economy with a high degree of resource

efficiency, Member States shall take the necessary measures to achieve the following objectives:

Directive 2018/851, according to art.11 par. 2

- ✓ separate collection of hazardous household waste (until the end of 2022), biological waste (until the end of 2023), textiles (until the end of 2025).
- ✓ the preparation for reuse and recycling of municipal waste is increased to a minimum level of 55% by weight by 2025, respectively 60% by weight by 2030 and 65% of waste by 2035.
- ✓ From 1 January 2027, Member States may consider municipal bio-waste entering aerobic or anaerobic treatment as recycled only if it has been collected separately or separated at source, in accordance with Art. 22.
- ✓ landfilling to reduce the landfill to a maximum of 10% of municipal waste by 2035;
- ✓ By 1 January 2025, Member States shall organize the separate collection of hazardous waste fractions from households to ensure that they are treated and that they do not contaminate other municipal waste streams.
- ✓ specific measures to combat food waste and marine litter, with a view to achieving the United Nations Sustainable Development Goal of reducing food waste per capita by 50% worldwide, in the retail and consumer network, and on reducing food losses in production and distribution chains by 2030;
- ✓ Directive 2018/852, according to art.6 par. 5
- ✓ recycling of packaging waste by 31 December 2025 at the latest, at least 65% of the total weight and at least 70% of the weight of packaging waste will be recycled by 31 December 2030;
- ✓ recycling targets for certain packaging materials, no later than 31 December 2025, for the recycling of the following specific materials contained in packaging waste: Paper and board: 75%, Ferrous metals: 70%, Glass: 70%, Aluminum : 50%, Plastic: 50%, Wood: 25%.
- ✓ recycling targets for certain packaging materials by 31 December 2030 at the latest: Paper and board: 85%, Ferrous metals: 80%, Aluminum: 60%, Glass: 75%, Plastic: 55%, Wood: 30%.

The EU waste management policy is set out in the various Environmental Action Programs, is implemented through the Waste Management Strategy and subsequent legislative measures, through EU Directives, Regulations and Decisions on specific waste management issues.

According to a European Commission communiqué "The circular economy - a zero waste program for Europe", stipulates that by 2025 the disposal of all recyclable waste must be eliminated, and by 2030 Member States should make efforts to eliminate waste virtually, which to use as resources.

3. Normative and institutional framework on waste management in the Republic of Moldova

In the Republic of Moldova, the activity of waste management is stipulated and the management of hazardous waste is based on the Law on waste no. 209 of 29.07.2016. The coordination of the management activity is assigned to the Ministry of Agriculture, Regional Development and Environment. Therefore, the Environment Agency and the Inspectorate for Environmental Protection are assigned to it in the field of waste management. An important role is assigned to the local public administration authorities, which aim to establish an integrated waste management system at regional level and to ensure regional cooperation in order to set up regional waste management associations.

State organizations with responsibilities in the field of environment and waste management in the Republic of Moldova:

- Ministry of Agriculture, Regional Development and Environment;
- Moldovan Waters Agency;
- Moldsilva Agency,
- Environmental agency,
- Inspectorate for Environmental Protection,
- Agency for Geology and Natural Resources,
- State Hydrometeorological Service,
- National Agency for the Regulation of Nuclear and Radiological Activity,
- Project Implementation Unit in the field of environment, etc.

The legal and institutional framework of waste management is provided by Law 209/2016 on waste, which regulates waste records and management and establishes mandatory measures for the protection of the environment and public health, through actions to make more efficient use of resources, but also to prevent or reduce the adverse effects of waste generation. The text of this normative act is based on the principles of sustainable development that harmoniously combine economic development, environmental protection and public health protection.

According to national legislation, waste is "substances, materials, objects, residues of raw materials from economic, household and consumer activities, which have lost, in whole or in part, their original value for use, some of which are reusable after processing" (art. 1 of Law no. 1347-XIII of 09.10.1997 on production and household waste).

The role and responsibilities of central and local authorities in relation to hazardous waste would be the following:

1. Create and implement relevant legislation in line with the transposition of the programs of the EU directives and the environmental acquis;
2. Creation of a national reporting and data system for hazardous waste;
3. Raising awareness of hazardous waste producers;
4. Raising public awareness of the impact of hazardous waste on health and the environment;
5. Providing economic and financial incentives for the development of appropriate hazardous waste management as well as for the creation of a market for hazardous waste management services.
6. Management of hazardous waste for which producers or holders do not exist or cannot be identified, such as historical waste.

The Ministry of Agriculture, Regional Development and Environment issues permits to enterprises that carry out waste management activities. In 2021, 40 enterprises are registered.

4. The trend of hazardous waste in the Republic of Moldova

Toxic waste is the most harmful and dangerous to the environment and human health, containing heavy metals (such as lead), found in used car batteries, can affect the mental health of children. For example: An old cell phone battery can pollute 600,000 liters of water with heavy metals. Hazardous / toxic waste management is one of the difficult problems that need to be solved in the Republic of Moldova. According to the latest statistical data provided by the NBS, in 2019, the total amount of hazardous / toxic waste generated was 10484 tons, increasing by 1.7 times compared to 2014 (6223 tons), and compared to 2001 this trend is in decrease by 12% (11879 tons). However, the tendency to aggravate the problem of waste in the Republic of Moldova, especially

hazardous waste, is generated by the faulty way in which various stages of waste processing are currently solved.

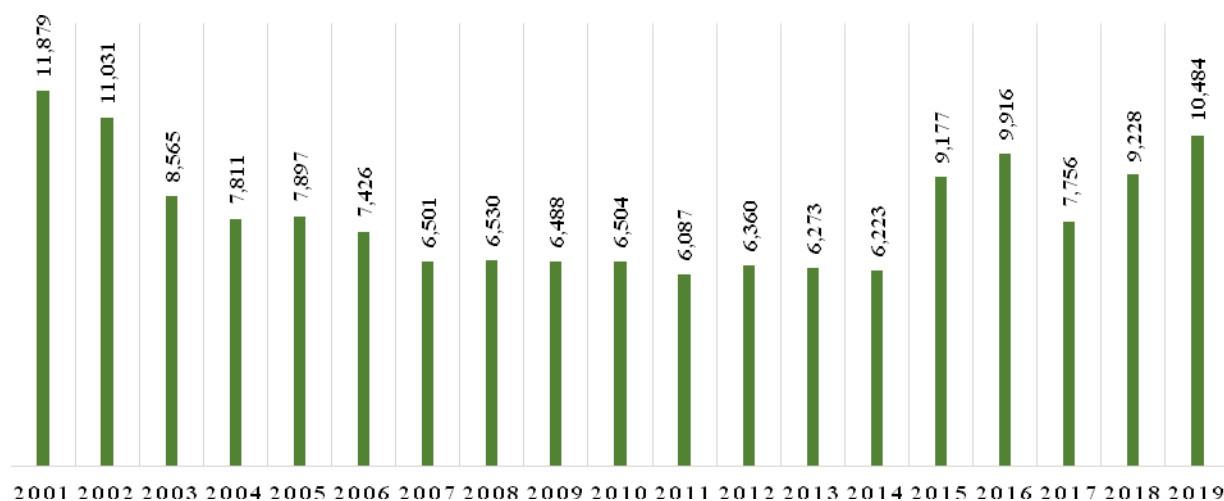


Figure 1. Toxic / hazardous waste at the end of the year in the Republic of Moldova, in the period 2001-2019, tons

Source: developed by the author based on statistical data.md

Hazardous waste management in the Republic of Moldova is performed by the following methods: recycling, neutralization, export for final disposal and storage. Thus, according to statistical data, waste generation fluctuates annually, and the amount of waste formed and managed is increasing. In 2019, a total amount of 4747 thousand tons of toxic waste was managed. Most toxic waste managed in the period 2001-2018, were registered in 2017 with a quantity of 6857 tons. Of which a large part of them, about 4254 thousand tons is represented by waste formed. Thus, the management of hazardous waste in the Republic of Moldova is performed by the following methods: recycling, neutralization, export for final disposal and storage. During the years 2015-2018, most of the hazardous waste was recycled 90%. Thus, in 2019, 4,582 tons were recycled.

Analyzing the series of statistical data on sanitation of localities, there is a slow increase, on average about 3.6% of waste volumes in 2017-2019, in the case of rural localities the generation trends are increasing on average by 30%, and in the case of urban growth is more modest than 1.3%. In total, in 2020, 187 services specialized in waste collection and disposal are organized and operate (53 services in the urban sector and 134 services in the rural sector), respectively 296 rural localities benefit from municipal waste collection services. Most of the toxic waste accumulated at the district level is reflected in the table below.

Table 1. Top 15 Districts with the most toxic waste in the Republic of Moldova, tons

Top	Rayon	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1	Ialoveni	651,2	655,6	573,5	459,6	454,1	462,1	768,4	1 040,0	1 473,6	1 473,6	1 473,40	1 472,00
2	Căușeni	1 195,8	1 196,20	1 196,4	1 196,2	1 093,4	1 093,4	1 053,2	1 053,2	1 053,2	1 053,2	1 053,20	1 053,20
3	Orhei	383,4	360,3	384,6	363,4	363,5	363,6	362,5	362,9	363,2	363,6	363,9	364,2
4	Cahul	218,2	217,8	217,8	217,8	217,8	217,8	219,1	219,5	226,5	229,1	234,9	243
5	Taraclia	475	475	434,5	362	351,2	351,2	166,4	163,1	190	187,1	170,5	172
6	Leova	234,7	235,2	235	235	247,1	247	173,6	199,4	199,4	199,5	199,5	161,7
7	Hâncești	105,2	105,3	107,9	108,2	108,9	108,9	107,5	105,2	105,9	139,8	106,8	103,7
8	Telenești	101,2	101,2	101,2	101,2	101,2	101,2	101,2	101,2	101,2	101,2	101,2	101,2
9	Călărași	199,3	199,3	199,3	199,3	199,3	199,3	67	67	67	67	67	67
10	Cimișlia	97,4	98,3	98,7	60,4	60,7	60,7	61,1	62	61,8	61,9	61,4	63,9
11	Nisporeni	50	51,2	51,2	61	176	176	61,1	61,1	61,1	61,1	61,1	61,2
12	Anenii Noi	80,7	80,7	80,7	52,8	52,8	52,8	52,8	52,8	52,8	52,8	52,8	52,8
13	Basarabeasca	26,1	23	7,2	7,8	55,1	55,1	5,9	37,9	69,4	145,8	34,7	38,3
14	Dondușeni	15,7	14,2	17,8	4,1	9,9	9,9	10	9,5	16	9,6	10	9,9
15	Strășeni	8,7	9,3	8,6	9	7,6	7,6	7,7	7,9	7,9	7,9	7,9	7,6

Source: developed by the author based on statistical data.md

Hazardous waste stock is the amount of hazardous waste to be treated or disposed of. Hazardous waste is normally stored before treatment or disposal. Some hazardous waste cannot be treated, disposed of or exported during the year in which it is generated. At the end of the year, this amount of hazardous waste that will contribute to the stock of hazardous waste to be treated or exported for disposal in the coming years.

According to the Sanitary Regulation on the management of medical waste, each waste producer is responsible for the safe management of waste, separate collection and packaging of waste, temporary storage and safe transport of waste, treatment and final disposal. At the same time, the producer of medical waste is obliged to keep records of data and information on waste produced and its management, education and training of staff. Some hazardous waste cannot be treated, disposed of or exported during the year in which it is generated. At the end of the year, this amount of hazardous waste that will contribute to the stock of hazardous waste to be treated or exported for disposal in the coming years.

Some of the most hazardous waste is electronic and medical waste. Electronic waste includes lamps, monitors, thermal insulation equipment, appliances, batteries. They contain many toxic substances: lead, nickel, cobalt, mercury, bromine. If e-waste ends up in landfills, hazardous substances enter water and soil, and from there - into the body of animals and humans. These substances can cause cancer and disorders of the endocrine glands. The share of e-waste is getting higher and higher, because people are constantly buying new technology.

At present, in the Republic of Moldova, prevention, protection and, at the same time, control measures generate various types of medical waste, such as: infected protective equipment such as - gloves, masks, goggles, protective visors used, waste containing blood or other body fluids, disposable syringes, mercury thermometers, psychotropic substances, antibiotics. If toxic medical waste ends up in landfills, it pollutes surface and groundwater.

Reaching the body with drinking water, antibiotics increase human resistance to drugs. And after burning hazardous waste, toxic substances will reach the environment.

5. Conclusions and recommendations

In light of the above, the outbreak of the Covid-19 epidemic on the territory of the Republic of Moldova poses an enormous risk to public health and the environment. Concerns are growing about toxic waste. Respectively, the hazardous medical waste generated in the medical-sanitary units, as well as regarding the household waste. Following the above, we elucidate the most important issues and come up with recommendations for solving the problem. It is important that the state authorities create a functional system for waste collection and then the population will sort it, because in the country there is no separate collection system well developed. Environmental protection authorities should monitor environmental components in epidemic areas and control bodies should carry out verification actions on how to manage medical waste.

The problem of waste management in the Republic of Moldova depends on several factors, but what remains more important is the lack of funding and an integrated waste management system, as well as the lack of infrastructure and services needed to adequately protect the environment. local, national and global level.

Waste management, also known as waste management, refers to education on waste collection, transport, treatment, recycling and storage. Usually, the term refers to materials resulting from human activities and reducing their effect on human health, the environment. Thus, the management of hazardous waste is insufficiently controlled in the Republic of Moldova. The appropriate flow of hazardous / toxic waste is not established. Possible private activities in this area do not have the necessary information on the volume of hazardous waste that should be treated and disposed of properly, so that costs and fees cannot be accurately estimated. There is still a need to establish the legal and regulatory framework for the recycling and treatment of waste in line with EU requirements. For the efficient management of toxic / hazardous waste, we come up with the following recommendations:

- Harmonization of the normative and legislative framework related to the Waste Law according to the European legislation;
- Population: rational consumption, collected and separated waste, paid services;
- LPA: integration in the regional waste management system, sorting / incineration stations, regional landfills;
- CSOs: pro-activism in decision-making and policy monitoring.

Hazardous waste management is a complex subject consisting of several components. There is no perfect model that can be applied in any situation, but the EU has firm principles on which to base its approach to waste management that can be applied in the Republic of Moldova.

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CHALLENGES THAT FACE MOLDOVAN FOOD INDUSTRY TO ACCESS THE EUROPEAN UNION MARKET

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Abstract: At present, Moldovan food industry faces a variety of challenges related to accessing the European Union market. While food industry go increasingly circular, more investment and more effective governance are needed to upscale promising innovations. Competitiveness on the home market and the export market needs to be strengthened. In a slowly developing circular economy, Moldovan food industry must improve operations and reduce costs while maintaining product safety and minimize produced waste. Moreover, the trends in the global food market are constantly changing. Studying the experience of German food industry will be helpful in this respect. Moldovan food industry must be able to anticipate and adapt to change in order to stay competitive. The analysis presented in this article highlights main challenges that face Moldovan food industry related to accessing the European Union market regarding productivity, consumer preferences and demand, food safety, government regulations.

Keywords: challenges, food industry, EU- Moldova market.

JEL Classification: L66, D4, Q18.

1. Introduction

Global Food Consumption and Trade. At present, consumer perceptions regarding quality and safety are changing global food consumption due to: higher income, urbanization, and transport. It is known that among the determinants affecting trade patterns, income growth and its impact on food consumption are one of the most important in explaining changes over time. The effect of income growth differs among developed and developing countries.

Author Regmi (2001) explain that in XX-XXI century, diet diversification and increasing demand for better quality and labor-saving products have increased imports of high-value and processed food products in developed countries. In developing countries, higher income results in increased demand for meat products, often leading to the expansion of livestock production. This in turn may result in increased imports of intermediate products such as animal feed.

Given different diets, food expenditure and food budget responses to income and price changes vary between developing and developed countries. Low-income countries spend a greater portion of their budget on staple food products such as cereals and are generally more responsive to food price and income changes. The magnitude of a country's response to income and price change also differs across food items. In poorer countries, greater budget adjustments are made to higher value food items such as dairy and meat, and staple food budgets undergo little change. Middle-income countries are the most responsive to staple food price changes.

2. Trade between countries

There are many reasons for trade between countries, and the most important reason, the theory of competitive advantage, is that it is cost-effective for the countries to trade. According to the theory of competitive advantage, a country exports those products it can produce relatively inexpensively and imports those goods that it can produce only at relatively great expensive. The relative advantage of countries in producing food or clothing depends on the technology of each country and on each country's endowment of land, labor and other resources. A country with a lot of labor and little capital finds it to its advantage to export labor-intensive products and import capital-intensive products from countries with lots of capital and little labor (Carlton and Perloff, 2000).

3. EU-Moldova relations

The integration of the Republic of Moldova into the EU is one of its priorities. With this purpose, the EU and the Republic of Moldova signed the Partnership and Co-operation Agreement in 1994. It came into force four years later. The Agreement meant co-operation, and attempted to persuade the EU leadership to open a new stage in its relationship with the Republic of Moldova.

The Republic of Moldova's link to the European Union became closer in 2004, with the accession of ten states to the European Union. In 2005 the Republic of Moldova and the EU signed the Action Plan, a political document for three years laying out the strategic objectives of the cooperation between Moldova and the EU.

The Association Agreement is currently under negotiation between Republic of Moldova and the European Union. Relations between Moldova and EU are also shaped via the European Neighbourhood Policy (ENP), a foreign policy instrument of the EU designed for the countries it borders.

Thus, EU is developing an increasingly close relationship with Moldova, going beyond co-operation, to gradual economic integration and a deepening of political co-operation.

EU-Moldova Relations:

- EU-Moldova Association Agreement;
- Deep and Comprehensive Free Trade Agreement (DCFTA);
- Visa-free travel regime;
- etc;

Assessing the current state of Moldovan industry, it is necessary to note that most of them were created before 1990, and till now most of them keep their old industry specialization (fig.1 and fig.2).

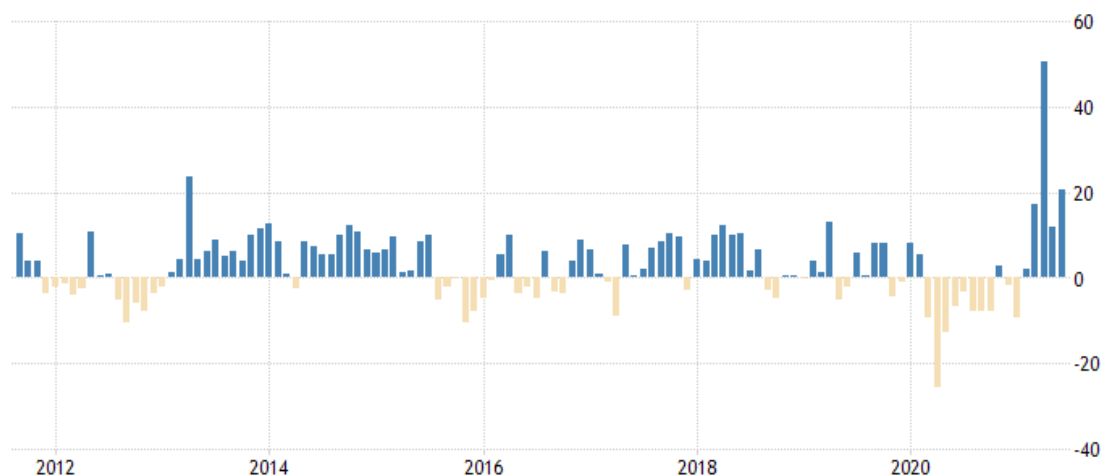


Figure 1. Moldova industrial production, 2011-2021, Moldova

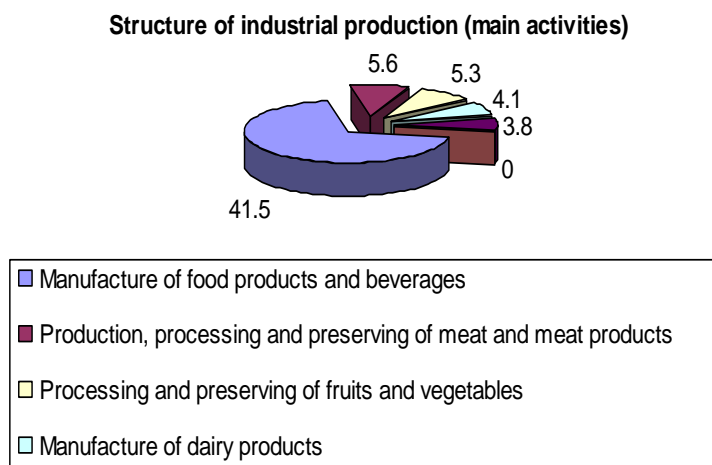


Figure 2. Structure of industrial production, based on main activities, Moldova, 2021

Source: compiled by the author, based on NBS data

We must mention that irrevocably changed the people, their mentality and approach to their professional duties, technical equipment of enterprises, technology and sales organization.

4. Trade policies

Trade policies promoted by the Republic of Moldova are mostly based on attracting investments in the national economy, which are capable of innovation, transfer of know-how and competitive goods for domestic and foreign markets, high added value and creating efficient technical and economic infrastructures in order to maximize existing economic potential.

Due to its favorable geographical position, Moldova is a platform for placement of international organizations and transnational corporations and becomes attractive to conduct business between western and eastern markets.

Autonomous Trade Preferences (ATP). From 2008, Republic of Moldova has benefited from the new scheme of trade preferences granted unilaterally by the European Union, known as the Autonomous Trade Preferences (ATP). Trade preferences have been granted as a result of Moldova's implementation of sustainable development, good governance policies and efficient customs administration. ATP offer free access to the EU market without quantitative restrictions and customs fees, the only exception being a small number of goods which are sensitive for the EU and are subject to annual duty free tariff quotas. The main condition for entitlement to the preferential arrangements is the compliance with the EU rules of origin of products. ATP have offered grounds for increasing the competitiveness of Moldovan products exported to the EU and have also stimulated the efforts of Moldovan exporters to penetrate alternative markets other than those from the CIS.

Deep and Comprehensive Free Trade Area (DCFTA). This DCFTA agreement assumes the abolition of duties and quotas in mutual trade in goods and services, as well as the elimination of non-tariff barriers (by the adoption of EU rules on public procurement, health and safety standards, and intellectual property rights, among other means). This allows the integration of Moldova with the common EU market. The idea is to stimulate free trade between the EU and Moldova, as well as to improve the investment climate. Consequently, this should translate into economic growth and also open up business in the EU countries to new opportunities to work with Moldova.

CIS. Moldova has signed 9 bilateral free trade agreements with CIS countries. About 41% of Moldova's international trade is conducted under free trade agreements with these countries,

this percentage being in a slight increase in comparison with previous years. Although the agreements provide for a general free tax trade regime, there is also the possibility for exceptions that are not stipulated in the texts of these agreements. Usually the exceptions are of asymmetric nature, while the customs taxes for the goods excluded from free trade regimes are applied using the most favored nation clause.

In 2002 Georgia, Ukraine, Azerbaijan and Moldova signed the GUAM agreement regarding the creation of a free trade zone. Its scope is to eliminate customs fees and other taxes with equivalent effect and quantitative limitations of trade, as well as to eliminate the barriers for free movement of goods and services.

Central European Free Trade Agreement (CEFTA). In 2006 Moldova has signed the Central European Free Trade Agreement (CEFTA). CEFTA allows duty free access to the market of countries from the South-Eastern part of Europe. The CEFTA agreement has radically evolved since Romania and Bulgaria left and joined the EU. At this stage, the present signing parties are Moldova, Albania, Bosnia and Herzegovina, Croatia, Macedonia, Serbia, Montenegro and Kosovo.

Although the exports from Moldova to CEFTA countries are pretty low, these have an important role in supporting Moldova's efforts to be included in the Western Balkans perspective of joining the EU, thus reinforcing the relevance of the CEFTA agreement in achieving the objective of Moldova's adherence to the EU.

The commercial relations of Moldova with CEFTA countries are governed by the preferential trade arrangements provided by CEFTA, which require almost total liberalization of imports

of industrial and agricultural products from CEFTA countries, except for imports of wine from the Republic of Macedonia. CEFTA also provides an individual mechanism for trade disputes settlement or usage of the instrument provide by WTO.

5. Competitiveness. Share of exports in industry revenue

In UE, wines and spirits continue to be the leading exports of the European food and drink industry. Overall, drinks accounted for nearly one third of the EU food industry export value in 2020. Those were followed by dairy and meat products which together accounted for an additional quarter of exports. In the fig.3 is presented the EU international trade in goods (yearly growth rates).

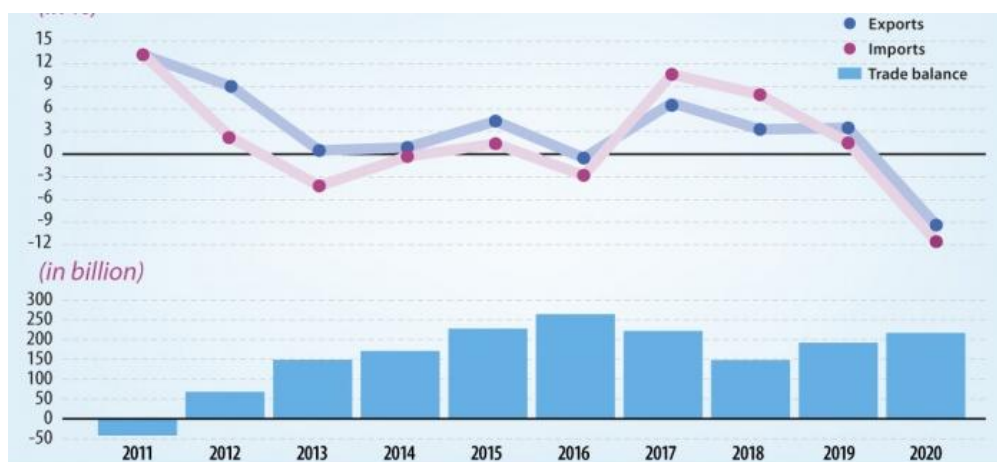


Figure 3. EU international trade in goods (yearly growth rates), %

Trade and Exports' Competitiveness (in Moldovan agricultural sector). In a rather small and open economy like that of the Republic of Moldova, better usage of agricultural trade benefits can be one of the most possible paths towards a significant economic growth, increase of population incomes and consequent reduction of poverty. Taking into account the fact that the local market is a rather small one and has a limited capacity of absorption, in the near future the agriculture would continue to be the main source for Moldovan exports, and the increase of agricultural production export will have the potential to produce a positive impact on long- and medium-term consumption and incomes. At its turn, this fact would foster the non-agricultural economy from rural area. Nevertheless, exports' increase will depend on Republic of Moldova's capacity to operate successfully and profitably its comparative advantages and to connect them rapidly to the international trade system.

Full exploitation of agricultural advantaged emerged as a result of the privatization, agricultural farms' restructuring and transition to a market economy represents the key to a significant growth in the sector, increasing thus rural incomes and creating more opportunities in rural zones. The Republic of Moldova is endowed with visible international advantages in high value crops' production, like fruits and vegetables which consume labor force and a have a higher probability to be cultivated in smaller individual households. At the same time, Moldova has fewer comparative advantages when talking about production of some conventional crops, like sunflower and wheat, which consume less labor force, but request a larger land area and equipment. These crops are cultivated by bigger farms due to a low profit margin. But, at the moment, Moldova encounters a significant impediment related to fulfillment of these advantages in the field of horticultural crops.

One of the reasons for Republic of Moldova's incapacity to bring into being its comparative advantages are the under-developed and distorted agricultural markets, this being a major barrier for trade which reduces incomes resulting from agricultural producers' activities. The local prices received by agricultural producers are much lower than the international ones and this fact affects agriculture profitability (which at the present time is the less preferred out of the total number of agricultural sectors). Thus, as a result of policies' distortions, markets' imperfections and inefficiencies, there are important profit transfers from farmers towards other trade network subjects.

Via cumulative effect, these distortions reduce agricultural incomes, conditioning an insufficiency of circulating capital and lack of new investments, which at their turn cause reduction of productivity and a bad quality of products, which are not competitive on export markets, this limiting event more the incomes. These deficiencies may be

rediscovered in low performance of big agricultural farms, but they may be extended also over the entire sector. At the same time, due to low incomes, the agricultural sector benefits from about 5 % of total investments, while agriculture's contribution to GDP is several times higher.

Moldova's exports to the European Union remain small. Although wine, nut, 16 large fruit and vegetable processors and specialty cereal exporters have succeeded in exporting to the EU, most Moldovan companies cannot meet the requirements for quality, safety, and volume of the EU markets. For instance, Moldova was a major supplier of fresh produce to the FSU, but none of its current companies can supply the EU with the volume of fresh produce exports that would warrant investment in the comprehensive and stringent EUREP-GAP or British Retailer's Code of practice. Moreover, nearly all fresh and processed food companies in Moldova lack the infrastructure and organization needed to meet the basic requirements for Good Manufacturing Practices (GMP) as recognized in the EU or the USA.

In last years, occurs a significant decline in the proportion of major groups of goods produced in Moldova. Thus, the share of food and beverages has changed from 51.7 % in 2014 to 41.5 % in 2020, while the share of the production of wines - from 20.6 % in 2014 to 6.1% in 2020. Of the 40 manufacturing industries of food and non-food groups (2020) we can distinguish 16 industries up to 1.0 % of the industrial products, 6 to 2.0 %, 15 - 6% 2 - to 10.0 % and 1 - 42%. Changes are noted only in the group of large industries with specific weight of 20 to 50 % and above, which includes main industries.

Moldova needs to diversify its exports market to reap more benefit from trade and to reduce the impact of disruptions of trade with CIS countries. The current over-dependence on the CIS, particularly Russian, markets renders Moldova vulnerable to shocks and political interventions by the latter.

The EU, a next-door market with a population of nearly half a billion, should be a more important destination for Moldova's food exports. An improved SPS system, particularly EU-compliant standards for products with clear comparative advantage and export potential, will greatly improve Moldova's access to the EU market. Experiences of other countries in central and Eastern Europe have shown how EU-harmonized standard and technical regulations have boosted agricultural export. For instance, Slovakia and Lithuania both had total agro-food export comparable to that of Moldova in the late 1990s. As a result of their accession to the EU – for which harmonization with the EU Acquis and the upgrading of food safety and SPS management capacity and infrastructure is a centerpiece of transition – their export to the demanding EU market tripled between 1998 and 2004. This caused their total export to more than double during the same period. By contrast, Moldova's total agricultural export grew by 15 percent over the same period and continues to rely heavily on the CIS markets. Its exports to the EU grew by 33 percent between 1998 and 2004 and that to CIS by only 13 percent. It is also worth noting that its export to CEEC declined during this period. Clearly, due to CEEC's adoption of the higher EU standards, their markets are becoming less accessible to Moldova's agricultural products.

Ensuring Country's Food Security. Although today food security of the Republic of Moldova is not threatened, being influenced only occasionally by negative factors, however it can be strongly undermined in a relatively short period of time.

De facto, national food security may be ensured, including, via manufacturing of sufficient and nutritive food products for all categories of the population, guaranteeing thus a healthy life and productive work capacity.

In this context, we must take into account: which of imported products groups can be replaced by competitive local production; the export of which agro-food products can

be intensified currently or in future; what kind of assistance is necessary from state's behalf so as to improve quality, increase processing volumes and develop marketing, etc.

At the same time, climate change can affect food security through erosion, drought and floods, resulting thus in a decrease or dramatic drop of agricultural production, including as a result of natural calamities. So, it is necessary to increase the reservoirs system, to rehabilitate the dams in flood risk zones, to have a more efficient irrigation, to implement agro-systems so as to increase resistance to erosions, to improve soil quality, to identify varieties of plants adjusted to Moldova's conditions (high temperatures and low humidity).

Aligning National Standards to EU ones and Ensuring Food Quality. At the present moment, the legislative framework regulating the development of agro and food sector for the time being is not adjusted to the European Union's requirements.

The fulfillment of the given goal provides for: revision of legislative-normative framework with abrogation, modification and adoption of respective acts that are not harmonized with the European ones (Guillotine II); development of technical regulations in agro-food field; setting up, equipping, appointing test laboratories for assessing the conformity of food products meant for internal market and export to the European community, as well as their readjustment to European standards and norms; development of national standards for agro-food field based on Codex Alimentarius Commission standards.

Consumer empowerment through information and education. The European Union's new strategy concept is determined primarily aiming consumer empowerment, which can be achieved primarily through its information and education.

In recent years a number of actions were carried out mainly related to consumer information and education. As the majority of authorities are empowered by law for consumer protection in their field (in particular the market surveillance) conducted seminars and consultations on matters of consumer rights are in their control. But in this respect it should be noted, however, authorities did not systematize and do not aspire to streamline and maximize the impact of the lack of clear plans in this regard, the lack of stability and tracking performance indicators.

On national level, is important to have a constant source of information in the media especially in the form of a periodical devoted exclusively to consumer protection issues, which have not worked enough for it to occur and be maintained at the appropriate level.

6. Conclusions

Moldovan food industry faces a variety of challenges related to accessing the European Union market, regarding productivity, food safety, government regulations, etc. Competitiveness on the home market and the export market is one of the key factors that need to be strengthened. In this order, Moldovan food industry must improve operations and reduce costs while maintaining product safety. Also, must be able to anticipate and adapt to change in order to stay competitive.

We consider that general problem of Moldovan economy is the lack of implementation innovative technologies. Development of the Moldovan food industry is impossible without achieving modernization process in the productive sector. The modernization process of Moldovan food industry needs to be created a model based on the consideration of complex phenomena and changing conditions determined by external and internal environment.

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STRATEGIC COMMUNICATION PROCESS: SUPPORT FOR MEASURING COMPANY PERFORMANCE

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Abstract. *This article presents specific features of managerial communication as a management discipline and its evolution in time. It is also justified the dependence of the management functions and communication process. It can be noted an interdependent relationship between managerial and communication functions, concluding that the communication process is central to the management system of any enterprise. Also in the article are reflected several new approaches that aim the roles of the manager, and the importance of communication in exercising this managerial roles.*

Keywords: *communication, managerial communication, performance.*

JEL Classification: *D38, M12, L25.*

1. Introduction

Currently, in the conditions of the modern economy, with the increase in complexity and diversity of organizations, their managers can no longer linger on the ground of empiricism and simple intuition. As a result, the modern manager tends in his managerial performance to professionalize himself by learning the science of management, but also of other adjacent fields, which would increase his professionalism and managerial skills. In the end of its actions are included a number of activities, including diagnosis, foresight, control of organizational behavior, effective communication, etc.

A leader must be prepared and proactive, to know what and how to communicate, especially in crisis situations, requiring permanent communication with subordinates, investors, partners, creditors, suppliers, customers, banking environment, etc. Thus, in moments of tension or conflict, it is important that through communication the situation is managed in favor of the organization, giving assurances to both employees and partners that things will evolve in a positive direction, and through the communication process they are informed about the future plans of the organization. The very day-to-day work within an organization is practically impossible to do without communicating, in one way or another.

And if on a personal level communication helps us to formulate and understand adequately the messages transmitted and received, favors cooperation with those around us, allows the de-stressing of tense states, then on the managerial level communication is a tool through which the manager transmits and receives information and decisions, accepts or rejects certain solutions, plans, organizes, trains, controls, prepares and implements change.

All the technological changes and innovations of the last 10 years have completely changed the way we develop business, communicate and live our lives today.

Technology is indispensable in almost all personal and professional aspects, generating new possibilities for connection, communication and innovation. Technological changes have created a real revolution in terms of communication and access to potential markets, anywhere in the world, by any means possible both in the online and off-line environment (Ștefan, Fratila and Radu, 2009).

Augmented reality, technological maximization, artificial intelligence, online communication and off-line experiences made available to us, whether we are consumers of certain goods or services or as we are part of the innovation and production process, generates opportunities and new opportunities to facilitate products and services in the

market. Thus, the company can offer them just a click away, anywhere in the world, at the best price, in the best conditions. Reducing the link between idea, producer, bidder and customer, creates new channels of income generation, new markets, new ideas and possibilities to generate "incremental innovation" and "disruptive innovation" (Stefan, Duica, Coman and Radu, 2010).

The work of an enterprise is unimaginable without communication, since this activity is carried out by people, and the probability of success of an enterprise is higher when we have effective communication between the members of the enterprise. Often, some work tasks are not performed as expected or certain actions, aimed at a change for the better, are not carried out according to the previous planning due to an inefficient communication (Stegarioiu, Radu, Simsek and Tabirca, 2020).

An efficient communication ensures the good development of the activities of an enterprise, and the functions of the enterprise are exercised in tandem and ensure, in our vision, the maximization of the results of its activity. In his daily work, a manager has the difficult task of making decisions, and these decisions are made after analyzing the information, which must be valuable, timely and full. Most of the time, this information is obtained directly in the communication process, whether it is about communicating with subordinates, superiors or partners or even with the company's customers. Following the decision taken, which, in turn, is also communicated, action is taken to turn resources into results. If the decision has been argued well, the results will be as planned.

Institutional theory and institutionalization improve our understanding of strategic communication, but are largely neglected in communication research (Sandhu, 2009).

2. Conceptual aspects of managerial communication

Communication is certainly one of the most important tasks a manager can have. In his daily activity, a manager communicates both with his subordinates and with his superiors within the enterprise, on the one hand, and with the environment external to the enterprise, including with customers, buyers, suppliers, the financial environment, on the other hand. And managerial communication does not reside in the simple ability of the manager to have good communication skills, but in creating a managerial communication system, based on a continuous process of improving both internal and external communication. What a good manager should understand is that effective communication in an enterprise is not a fad, but a categorical necessity, and poor communication can cause serious and costly consequences, including failure to perform work tasks, dismissals, material damage, compromises in relation to partners external to the enterprise and even bankruptcy.

Dan and Rodica Căndea, Romanian researchers, who have studied the communication phenomenon within the enterprise both at a theoretical and applicative level, are of the opinion that "effective and efficient managerial communication is a factor of competitiveness, a strategic advantage of the organization" (Căndea and Căndea, 1996). They also argue that the specificity of managerial communication, in relation to other existing types of communication, is generated by the purpose, objectives and functions of this communication, by the framework and structure of organizations, as well as by the context of organizational culture. At the same time, the managerial communication in the organization is subject to specific ethical norms that can be found in the organizational culture, the organizational policy and, obviously, in the individual ethics of the employees in the management positions.

Managerial communication is a special type of organizational communication, it is an essential component of it and helps both internally (i.e. everything related to the

company's employees) and externally, in relations with suppliers, investors, etc., which ultimately leads to the achievement of the management objectives of a company.

Managerial communication has several peculiarities, determined by the complexity of communication, its goals, objectives and implications, peculiarities that must comply with a series of norms imposed by the managerial culture and the organization's policy.

Studying the specialized literature focused on the issue of organizational communication, I identified a large number of definitions of the notion of managerial communication. Analyzing the multitude of definitions of the respective concept, we have identified some characteristics, according to us relevant, of the notion of managerial communication, including:

- programmed and permanent informational activity;
- process performed between a transmitter and receiver through specific channels;
- management tool, means of coordination;
- way of achieving a common goal by changing the mentality;
- an exchange of messages at the level of individual, subdivision, group;
- a fundamental process of interaction based on feedback.

Reflecting on these distinctive characteristics, we will try to define the managerial communication as a permanent, conscious process, in which an exchange of information takes place, at different levels, through the most appropriate channels, in order to succeed in the maximal understanding of the messages, in order to achieve a synergy of efforts to achieve a common goal and the achievement of the organizational objectives.

Managerial communication appeared as a discipline of management from the need to make available to the manager the optimal means of interaction in order to fulfill his functions and duties, being a factor of competitiveness, a strategic advantage of the organization.

In the period when the emphasis was on the development of technology, but not on people, and management was a "car management" and it started from the premise that in order to achieve goods, it was necessary primarily to make goods, the autocratic style of management was characteristic, and the decisions were taken by the chiefs and transmitted to subordinates.

The role of communication in this context was only to distribute the necessary information and instructions, from top to bottom, and the communication had to be clear, precise and authoritative, being called prescriptive communication.

Gradually, however, the accents changed, starting to appear the unions, which, in addition to concerns about the increase in wages, began to get involved in solving the problems of the organization. The concern for people, for driving cars is becoming bigger and bigger, and management is becoming a humanistic management. Thus, the concept of "chief manager" is added to the concept of "leader manager", along with the concept of group and employees. Specific to this period is the fact that communication gradually becomes an instrument of harmony in human resources management, a basic tool of the manager in fulfilling his functions and in achieving the organization's objectives. As a result, at the beginning of the XXth century communication is transformed from a series of mechanical measures and actions into a philosophy of management.

3. The communication process, an important pillar in the development of the company

In order to better plan the internal and external communication processes, companies and specialists innovate various forms of strategic planning to support the management processes, from vision to implementation and evaluation of concretely obtained results.

For example, the Balanced Scorecard (BSC) model, one of the best performing management systems and strategic planning tools, spread in the international business environment, improves external and internal communication and also monitors the performance of an organization based on its strategic objectives to the analysis of the impact of actions taken with resonance for the future. The BSC model developed by Norton and Kaplan is in fact a global and complex management tool suitable for the concretization, implementation and control of the company's strategies (Oliveira, Martins, Camilleri and Jayantilal, 2021).

Within the BSC, the managers' attention is mainly directed to the non-financial indicators with the role of evaluating the degree of satisfaction of customers, employees and partners, the duration of the processes and the quality of the results that are to be obtained. The respective indicators, also called "early indicators", help and facilitate the anticipation of the future financial performance of the company, because only with a motivated team, which acts according to efficient processes, oriented towards the customer, on a market with satisfied consumers, offering performing products made in conditions of economic efficiency, sustainable development can be achieved in conditions of profitability.

The translation of the mission into the expected results thought by Robert Kaplan and David Norton through BSC starts from the company's mission, which must answer a simple question: "Why do we exist?" and then translate to the vision (what do we want to do), the values in which the company believes, the strategy that proposes it as an action plan, the implementation process and the strategic action and innovation initiatives that can generate certain strategic material and immaterial results.

According to the BSC system, mission and values remain stable over time. The organization's vision is a projection that clarifies the direction of the organization and helps individuals understand why and how they should support the organization. The strategy is being developed under unstable conditions imposed by the real world.

The objectives and performance indicators are grouped into four perspectives, linked by cause-and-effect relationships (Malina and Selto, 2001):

- Financial perspective (how do shareholders perceive us?)
- Perspective of customers (how do users perceive us?)
- The perspective of internal processes (in what processes do we need to excel to be successful?)
- Personal perspective and innovation (how do we support our ability to adapt and improve our performance?)

It is the customer perspective that can generate added value and is relevant on the market, can make the company visible and attractive to meet the requirements of its customers.

The recent management philosophy has shown an increase in the importance of user focus and customer satisfaction in any organization. In the development of satisfaction metrics, customers should be analyzed in terms of customer categories and the type of processes for which a product or service is provided.

According to BSC, the Customer & Stakeholders section emphasizes the value that a company offers to its customers and the importance of measuring their degree of

satisfaction in order to make them loyal. From the customer's point of view, a company's performance is measured by how it is available to them, how it meets their requirements and how much it is open to listen to and innovate for them.

As long as a company innovates and meets the demands of its customers, it means that it wants to create a positive impact and generate added value in society. Creating value for customers and prospects will generate profits, new channels of innovation and access to new markets. They must generate Customer Value Proposition (CVP) processes, which specifically highlight the net benefits a consumer obtains from interacting with the company, its products and services. The consumer can thus be impacted at the physical level (product quality, form, price, delivery method, utility, etc.), relational (the interaction that creates it with the employees and the company, the accessibility of the services, etc.) and on an emotional level (how they made him feel and what experiences generated them).

The benefit package that a company can deliver to its customers and consumers is generated by the business philosophy it promotes in the market through its mission and vision.

Thus, the strategic communication process of the company will be strongly based on the principles and values in which it believes, above simple profit and with the desire for social improvement and sustainable development (Bénet, Deville and Naro, 2019).

Unlike ordinary public relations practices, strategic communication focuses on the main practices that generate and control organizational success. Also, strategic communication increases the area of traditional tactics of institutionalized communication in order to be able to manage the messages transmitted in all types of interactions with internal and external stakeholders. Strategic communication is an emerging area of study in the communication and management social sciences (Thomas and Stephens, 2015).

Communication will thus play a new role in promoting the management of innovation that can be acquired through the understanding from a new perspective of leadership communication. Theoretical concepts and experimental discoveries can be integrated into a circular system of leadership communication in terms of innovation, which combines the social, cognitive, affective and conative dimensions of the new role of communication management in the process of innovation.

4. The role of communication in the realization of managerial functions

Managerial communication cannot be viewed outside of management, this being an important and fundamental component of it. As a result of the analysis in the specialized literature of the issue of scientific communication, a relationship of interdependence between managerial functions and communication was identified; moreover, we found that the communication process occupies a central place in the managerial system of any enterprise.

The communication is, according to the Romanian researcher Emilian Dobrescu, the premise for exercising the management activity, the functions of the management process. "Only an efficient communication makes possible the planning and programming, coordination and control, motivation, consultation and active participation of the members of the organization in achieving the proposed goals" (Dobrescu, 2010). The author believes that every moment of the enterprise's activity is based on an efficient communication, as a way of focusing and correlating efforts.

The same idea is shared by the Romanian scientists Rodica M. Căndea and Dan Căndea, who consider communication vital in the exercise of managerial functions. The authors consider that the manager represents the person with authority of an enterprise or of a subunit thereof, who assumes the performance of the managerial functions identified

by the renowned French administrator H. Fayol as those of planning, organization, command, coordination and control (Câdea and Câdea, 1996).

We also rally ourselves to this idea, as we consider that the communication process is present in the exercise of management functions, and the manager performs a multitude of activities achievable through communication. In order to understand the place and role of communication in the realization of managerial functions, we will examine the essence of these functions and we will try to see what is the dependence between them and the communication process.

At the level of the general management, the planning or forecasting function consists of all the work processes through which the main objectives of the company are determined and its components, the resources and the main means necessary to achieve them (Niculae, Gheorghîță and Gheorghîță, 2006).

Planning, based on foresight, actually defines the purpose and objectives regarding the performance of the enterprise, the decisions regarding the tasks to be performed, but also the resources that will be used to achieve those objectives; in other words, it determines "where" the organization wants to go and "how" to get there. A manager cannot exercise this function without working with internal and external information of the enterprise, without a clear formulation and transmission of objectives and plans at different levels, without discussions and meetings inside and outside the enterprise. So, communication is inevitable in the planning process of a manager.

The organization, the second function at the level of the general management, consists of all the management processes through which the processes of physical and intellectual work and their components (movements, times, operations, etc.) are established and delimited, but also their grouping by positions, work formations, compartments and their assignment to the appropriate staff based on managerial, technical, economic or social, with the aim of achieving the objectives that were planned.

Through the command function, clear and precise instructions and provisions for the achievement of the planned tasks are transmitted to the subordinates, in order to achieve the objectives of the enterprise. The achievement of this managerial function is conditioned by the achievement of an adequate communication, which involves the delegation of responsibilities, establishing a climate of collaboration, motivation of the staff (Dobrescu, 2010).

The coordination function at the level of the general management consists in all the work processes through which the decisions and actions of the company's staff and its subsystems are harmonized, within the forecasts of the organizational system previously established (Niculae, Gheorghîță and Gheorghîță, 2006). The coordination function is an important prerequisite in the harmonization of the activities carried out and the resources used to achieve the common goal – of achieving the objectives of the enterprise. In order to ensure the most effective development of this managerial function, an adequate communication is required at all levels of management within the enterprise.

Thus, we can conclude that due to the character of complementarity that is established between the management functions and their mutual interdependence, but also due to a relationship of interdependence between them and communication, the communication process occupies a central place in the managerial system of any enterprise.

Interpersonal roles are manifested in the correlation of management with those around them; informational roles consist of activities of maintaining and developing an information network; decision-making roles are manifested in those situations where the manager has to make a choice.

5. Conclusions

Communication is an important component in the management of the enterprise, since a significant part of the activities of an enterprise is carried out by people, and the probability of success of an enterprise is higher when we have effective communication between the members of the enterprise.

We believe that the communication process helps to understand the problems faced by employees, ensures the sustainability of the relationships between employees or between them and the manager, the ability of the manager to motivate and lead his team, but also to strengthen the relations with the environment external to the organization. The manager therefore has, in addition to other important roles, the role of negotiator; he must organize and maintain a network of contacts with the organization's partners and sources of information that serve as a support in the orientation of the company.

In this context, we can say that the concern for a better communication with the subordinates, but also with the company's partners, has become a current issue for the modern manager, aware of the effects that a constructive communication or one can have

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