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HELPING STUDENTS OVERCOME BARRIERS TO BUSINESS COMMUNICATION NOWADAYS

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Abstract: *Foreign language competence and cultural differences are often seen as the most common barriers to effective business communication and mastering them is understandably a long-term process, involving both targeted study and accumulating relevant practical experience. This paper will start by identifying other obstacles to effective communication that business people might encounter nowadays and then suggest some ways in which students preparing for a career in business would benefit from communication-focused activities in the classroom. It will show that an interdisciplinary approach is especially relevant at the moment, since the traditional channels and perspectives on business communication have been challenged in the context of the current global health crisis.*

Keywords: *Business communication, barriers, language, soft skills, hard skills.*

This Article was presented as a paper at the 13th edition of the Annual International Conference Globalization and Higher Education in Economics and Business Administration (GEBA 2021), which was held at the Alexandru Ioan Cuza University, Faculty of Economics and Business Administration in Iasi, Romania from the 21st to 23rd of October 2021.

Introduction

Business communication is a broad concept in itself, but in attempting to define it, we must first refer to communication in general. In its most basic form, communication involves transmitting a message from a sender to a receiver, through a specific channel. The word ‘communication’ itself is derived from the Latin word *communis*, which means ‘common’, so, when we communicate, we are essentially trying to establish a commonality with another person (Overton, 2007, p. 6). In our case, the commonality Overton mentions is business. Thus, business communication can be defined as exchanging business-related messages, usually in a business context. Of course, the four main elements needed in order for communication to take place are usually accompanied by additional ones like medium, encoding, decoding, feedback, context and noise. Noise refers to anything which tends to distort the message in the process of sending and receiving messages and, consequently, it can be listed under the common barriers to communication. Business English students usually point out that foreign language competence and cultural differences seem to be the most prevalent obstacles when it comes to effective business communication, though arguably the former is easier to overcome. English is a *lingua franca* and, if everything else fails, one can always use the services of an interpreter or even a translation app when there

is an emergency. Intercultural competence, on the other hand, is more difficult to achieve, although they both take practice.

A look at the research literature on business communication reveals multiple factors contributing to the way a message is transmitted and perceived at the other end, the different codes within language, like verbal, prosodic, paralinguistic, kinesic and standing features (Ellis and Beattie, 1986, p. 17), concepts like register, dialect and accent (Hartley and Chatterton, 2015, pp. 57-58), while also differentiating between verbal barriers to communication, like inadequate knowledge or vocabulary, differences in interpretation, inappropriate use of expressions or ambiguity and polarization and nonverbal ones like inappropriate conflicting signals or distractions (Newman and Ober, 2013, pp.10-12). Moreover, based on the form of communication (spoken, written, non-verbal), we can encounter different combinations of the above-mentioned factors, which contribute to the uniqueness of each situation. Some basic functions of business communication, as identified by Bennie (2009) are: to pass on information, to persuade people to buy a product or use a service, to discuss an issue, to recommend a course of action, to make or answer a request or a complaint (Bennie, 2009, p.1), but choosing whether to initiate it orally or in writing “will depend on the circumstances, and to some extent on the person or people you are addressing” (Bennie, 2009, p. 2). For example, in some contexts, the speaker will choose oral communication for speed or to receive instant feedback from the audience (both verbal and non-verbal), while in other cases written communication is preferred to retain a permanent record, to send the same message to a number of people or to be able to think carefully about what you want to say (Bennie, 2009, p. 2). Choosing oral over written communication or vice versa might also depend on the profession. Chan (2020, pp. 2-3) mentions several studies which showed that the use of spoken communication is particularly important in the case of engineers, bankers and nurses, although writing and reding emails, memos and reports were also a significant part of people’s jobs.

Business communication happens mostly within a company and there are a lot of books addressed to students (Beebe and Mottet, 2013; Guffey and Loewy, 2016; Newman and Ober, 2013), managers and corporate workers (Bennie, 2009; Clutterbuck and Hirst, 2002; Hartley and Chatterton, 2015; Simon, 2015) detailing the specific situations and types of written or oral communication that can be used in order to improve the overall flow of information. Also, one may find information about successful communication in relation to leadership and organisational structure (Beebe and Mottet, 2013; Hartley and Chatterton, 2015; Newman and Ober, 2013), together with dealing with intercultural differences (Tuleja, 2017) and using ICT (Clutterbuck and Hirst, 2002; Newman and Ober, 2013). However, business communication is not limited to the constraints of one company, not even to the same city or country. In an increasingly globalised world, business people are travelling abroad to meet business partners and negotiate deals, acting as representatives of their respective companies and cultures. The question asked in this paper is whether both internal and external types of business communication are confronted with the same barriers, what they are nowadays and what can be done to help business students prepare for such challenges.

As previously stated, during our preliminary discussions about business communication, students often identify foreign language competence and cultural differences as the most difficult obstacles to being able to communicate effectively. Granted, these two may not be a problem in the case of internal communication, unless that

particular company has a significant number of employees from different cultural backgrounds. Most likely, they become an issue in the case of external communication, when the situation requires travelling abroad and/or frequent meetings with foreign partners or customers. Typically, companies would provide their key employees with the opportunity to take foreign language and cultural competence courses alongside providing training sessions on leadership, public relations or negotiating, all with the end goal of having well-prepared staff that can work together and also be able to interact efficiently with anyone outside the company.

Other traditional barriers to communication, in general, and business communication, in particular, may be:

- a) lack of interpersonal skills,
- b) language issues (even in the case of a person's mother tongue),
- c) limited specialised vocabulary,
- d) lack of expertise in the business field,
- e) lack of practice,
- f) lack of listening skills,
- g) poor knowledge of non-verbal cues,
- h) lack of business writing / presentation / negotiating / team-working / time management (Beebe and Mottet, 2013) skills,
- i) limited knowledge of business etiquette and ethics (Guffey and Loewy, 2014).

In the case of (Business) English seminars, raising students' awareness of such issues usually comes as a package with the linguistic input. But we must also acknowledge the added barriers that we have been confronted with for the past year and a half, as the world experienced the switch to mostly online communication.

Business communication during a global pandemic

When the pandemic hit, in early 2020, almost everything we thought we knew about business communication was suddenly challenged. Depending on national lockdown regulations, employees spent anywhere between a few weeks to months on end not being able to interact face-to-face and using different methods of working remotely, which was probably the most we have ever relied on ICT in our history. From working to shopping and even to connecting with friends and family, we were forced to adapt to this sudden loss of unmediated interaction and make changes by learning along the way. At this point in time, with the world still going through the disruption brought about by the pandemic, it is difficult to state the impact it has had on business communication. However, as they say, the show must go on, since businesses need to find ways to stay afloat while employees are doing their best to do their jobs in less-than-ideal circumstances. And it seems that we are craving the kind of efficiency we expect from business communication in our everyday lives as well, since our leaders have not been very coherent in providing guidelines for the past year or so (Jacobs, 2020).

The implications for everyone involved in any type of virtual information exchange were that we first had to adapt to the new channel and then find a way to get the message across given the new obstacles to effective communication. For Business English teachers and students, this basically meant that they had to overcome the barriers of online communication in general in order to be able to discuss about the barriers to business

communication in particular! This switch to online communication will undoubtedly have effects on what will be taught in the future. Already, there are companies where it has been decided to permanently implement the hybrid working model (both on-site and online), which indicates that both employees and employers have realised that business communication has remained effective even with people working remotely. We do not necessarily need to be in the same room to work together (of course, this is not the case for all fields of activity), so we might witness a worldwide revolution in working practices and this should be reflected in what we teach our students.

Learning how to overcome barriers to business communication through business english courses

So, how do we help our students understand what business communication is about, what barriers they might encounter in a work setting, how to overcome them and how to adapt to the challenges brought about by the current global situation?

The students at the Faculty of Economics and Business Administration in Iași are enrolled in ten distinct learning programmes at undergraduate level (Accounting and Business Information Systems, International Economics and Business, Trade, Tourism and Services, Banking and Finance, Business Information Systems, Management, Marketing, Economic Statistics and Forecasting, Public Administration and Business Administration – in English) and twenty-two master's programmes following roughly the same domains. Based on their specialisations, they could all benefit from training in business communication, especially when it is done in a foreign language. All undergraduate students study English for four semesters (or more for some specific programmes), which means they have the opportunity to improve their language level and also familiarise themselves with the implications of business communication in a foreign language.

In the following sections of this paper, I will provide examples of how we tackle the communication barriers identified above in the Business English classroom and how we contribute to familiarizing our students with the theory and practice of business communication. The overall objective of our Business English course is to help develop both their hard skills (related to language and specialized business knowledge) and soft skills (interpersonal communication and other general life/work skills like preparing and delivering presentations, business writing, negotiating, team-working, time management etc.) through a variety of activities.

Hard Skills

a) Foreign Language Competence

Foreign language issues are the main focus of our seminars with undergraduate students, especially those in their first year of study. In dealing with mixed-ability groups who have not been previously tested for language competence level, discussing more complex issues before making sure basic language knowledge is internalised is not viable. Thus, while topics related to the business world are tackled throughout the four-semester course, during the first year there is a lot of focus on grammar and vocabulary building. Gradually, more advanced notions are introduced and distinctions are made based on notions like register, levels of formality, specialised phrases etc.

Achieving communicative competence (i.e., the learner's ability to use the language in order to communicate successfully) is at the core of most language teaching approaches nowadays, because the end result in business communication is maybe less about knowing all the technical terms or having the skills to deliver an outstanding presentation (although these might be the focus at some point or another), but more about being able to express exactly what you want to say, clearly, concisely and appropriately, in a language that is not your native one. With a lot of the business communication (both spoken and written) now happening through online platforms, it is more important than ever to choose your words carefully in a foreign language so that misunderstandings are avoided.

b) Specialised Vocabulary and Business Expertise

When making the transition from general English (taught in schools) to ESP (taught in universities, language schools or in-company), students are faced with accumulating as much specialised vocabulary as possible. Grammar and syntax rules stay the same, but in order to be able to encode and decode messages in a business environment, students need to understand what certain words mean (sometimes the meaning changes depending on the context) in order to perform the tasks required from them. However, since the vast majority of undergraduates is pre-experienced, there is no specific business field to focus on. Even though a student might specialise in marketing, for instance, it is not at all uncommon for him/her to find a job in management or finance, particularly since all first-year courses are the same for all students at our faculty. This means that the teacher will have to cover more general topics at this level, rather than insist on extremely specialised vocabulary items.

Soft Skills

a) Interpersonal and Listening Skills

When it comes to interpersonal skills, it is important to acknowledge that practice is the best way to prepare our students for real life human interaction, be it direct or indirect. This involves providing opportunities for them to work in pairs or groups, prepare team presentations, collaborate on projects, encouraging them to attend conferences and networking events. By essentially treating the classroom as a potential work environment, through completing language-related activities, students indirectly learn to collaborate with their colleagues, follow instructions, receive and provide feedback, brainstorm ideas, ask for help, negotiate etc., which are all skills that employers are looking for and are at the basis of effective business communication, since there are very few jobs which actually do not require one to interact with other people.

With remote learning and working due to the pandemic, interpersonal interaction has suffered greatly. Beyond the inherent technical issues which hinder the actual exchange of (written or oral) messages, it is significantly more difficult for people to establish rapport, read non-verbal cues, decode hidden meanings or be mindful of cultural sensitivities when communicating through videoconferencing platforms or on the phone. Multinational conglomerates where employees had been using internal chat software and distance-communication platforms for several years before the pandemic may have been more prepared for the switch to online interaction (though employees in the same department would no doubt attend regular face-to-face meetings and teambuilding activities), but in the fields where physical interaction used to be the norm, blockages are inevitable. What can be done, at the beginning of a new academic year with little chances

of on-site activities, is to encourage students to make the most of what technology has to offer. It is important for them to understand, for example, that using their webcam during their seminars is much more than an inconvenience, it is an essential way to communicate effectively, since a large part of the message is transmitted visually. This also means that there is significantly more effort required on their part to encode the message, avoid noise, get it across and then receive and decode feedback.

b) *General (Work) Skills*

A lot of different types of skills can be included in this very general category and while most of them are not limited to the work environment, it is in that context that they become necessary to master. A brief look at the job advertisements posted on various recruitment websites reveals that many recruiters and managers today are looking for future employees who already master skills like time management, negotiating, team-working, preparing and delivering presentations, conflict management etc., alongside the required minimum level of foreign language competence (the more languages an applicant can speak, the better). Acquiring these skills has been the indirect objective of all teachers throughout the student's school instruction, but they continue to be part of the learning goals at university level, as they are essential to our students' future professional development. During our Business English courses, as we go through business-related topics like company organization and culture, advertising, management, cooperation and competition or human resources and recruitment, we also work on the skills needed to activate in these different business areas. Attending meetings, reading and sending reports, listening to and delivering presentations, sending or receiving emails are all part of our work lives nowadays, including in the case of what are considered non-desk jobs. Business writing in English is of particular concern for us, since the written word has significantly more weight to it and, in business, oral communication is normally followed by some sort of written agreement. Thus, our second-year undergraduate Business English students are specifically required to practise writing their CV, application letter and several types of common business correspondence in preparation for their future careers. This is especially relevant these days, since the pandemic may have accentuated the need for written agreements and information exchange as a result of business communication being conducted almost exclusively without physical interaction.

c) *Intercultural Competence, Business Etiquette and Ethics*

A lot has been said about the importance of cultural awareness, intercultural competence and cross-cultural communication (Harris et al., 2004; Jackson, 2014) especially in relation to learning a foreign language, since they should come as a package. This is also the case of the Business English courses at our faculty, as we recognise the necessity of helping familiarise our students with the realities of the business world. Globalisation has opened doors for them to travel and study abroad, as well as apply for positions around the world, but it has also meant that international corporations have expanded their business to our country and are looking for potential employees who are already familiar with working in a multicultural environment. Students who are currently working for such companies have confirmed that they are required to use both their spoken and written English skills as they communicate with customers abroad or attend meetings, workshops and training programmes with fellow employees from other countries, as well

as draw on their knowledge of business etiquette and ethics, which is also touched upon during their Business English classes.

As previously mentioned, all students at our faculty study Business English for four semesters (except for those specialising in Business Administration, who study Legal English). Regardless of specialisation, however, the concept of intercultural competence is introduced early on, as it is a significant part of the syllabus. Moreover, students specialising in Economics and International Business continue their training in English in their third year with a Business Communication course. We also offer several master's programmes where intercultural communication is taught in English, including one named International Business and Intercultural Strategies. This goes to show that there is a real preoccupation for such issues at our faculty, since it is up to us to prepare our students for the communication obstacles lying ahead, in the vast world of business.

Conclusions

Business communication is quite a loose term, encompassing a very large amount of specialised information, skills, factors and conditions, all necessary in order for the process to take place successfully. In fact, business communication is the engine that drives people and businesses, it brings them together and is at the basis of economic activities worldwide. It is not something that can be taught in a few weeks, since it involves a lot of practice and benefits from significant professional experience. The subject is covered by Business English courses, but students certainly benefit from the input provided by their other professors as well, who specialise in the different areas connected to Economics and Business Administration.

The current health crisis has definitely changed some of the ways in which we used to communicate and the way business was conducted, but it has also hopefully opened some new doors and at the very least it has showed that communication will take place, no matter what. In terms of communication barriers, with the use of online platforms, they seem to have been reduced in number, rather than multiplied. Social media, podcasts, wikis or blogging are now used on a regular basis, as we witness the digitalisation of the business world at a staggering pace. It is up to us to keep up with all that technology has to offer, but it is also up to educational institutions and companies to teach us how to implement it at work. As we continue to adapt to the new technologies, we will continue to be impacted by new trends, so it is essential that we evolve at the same pace as our students and the requirements of the job market, because it in turn reflects the communication needs at the workplace. Business communication will likely continue to develop in the future, and whatever other barriers might appear, we will certainly find a way to overcome them, as information exchange is the essence of who we are as human beings and of society itself.

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RECONFIGURING THE HEALTH SYSTEM FINANCING MECHANISM UNDER PANDEMIC SHOCK CONDITIONS

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Abstract: *Today, the whole world is facing an extremely aggressive pandemic that affects all government systems and processes, including the health care system. Therefore, this article substantiates the need to reconfigure the financing mechanisms of the health system and to take measures to overcome pandemic shocks. The aim of this research is to highlight the existing problems in the efficient functioning of the financing mechanisms, but also to reconfigure them in the context of the pandemic crisis. The main results obtained from the investigations consist in carrying out a comprehensive diagnosis of the existing financing mechanisms, defining the financial shock of the health care system, as well as offering practical recommendations for the institutions empowered with the management of the health system. The uncertainty we are in requires us to find new opportunities to develop and maintain the mechanisms for the health system financing.*

Keywords: *financing mechanism, health system, shock, pandemic, crisis.*

JEL Classification: *H51; H12; G01.*

This Article was presented as a paper at the 13th edition of the Annual International Conference Globalization and Higher Education in Economics and Business Administration (GEBA 2021), which was held at the Alexandru Ioan Cuza University, Faculty of Economics and Business Administration in Iasi, Romania from the 21st to 23rd of October 2021.

Introduction

The topicality of the study derives from the fact that the health systems around the world are constantly changing, being affected by the emergence of new diseases, pandemics (COVID-19) but also by the need for resources (financial, human, technical, etc.) necessary for their treatment/prophylaxis. One of the most important problems, at national level, is the efficient management of financial resources funds. The main actor in the system of compulsory health insurance in the Republic of Moldova belongs to the

National Health Insurance Company, which plays an important role in the process of allocating state budget funds and, in fact, representing a macroeconomic organization. Medical institutions are the main providers of medical services in the country, having the role of managing the budgetary funds. In the scientific attempt to reconfigure the financing mechanisms of the health care system in the Republic of Moldova, in conditions of pandemic shocks, we mention that the financing process in this field continues to be a current problem, because the mechanisms used are inefficient, which generates public money waste. It should be noted that the funds of medical services come largely from the population, while the collection mechanisms include: taxes, health insurance contributions, private insurance premiums, savings of the population, payments made directly by patients, donations, loans, grants, etc. [9, p.27].

At present, the compulsory health insurance in the Republic of Moldova is at a modest level due to the lack of financial and medical education, miserable salaries, the absence of fiscal incentives and, last but not least, the pandemic shocks that caused the medical, economic, financial psychological, but also social crisis. The recession of 2020 has exacerbated and further affected health systems, and the actors involved in managing the systems will have to cut back on planned spending, even staffing.

In some authors' opinion, the reconfiguration of the financing mechanisms of the health system derives, first of all, from the pandemic shock generated by COVID-19, which extended to the entire national health system and beyond. Thus, the pandemic shock caused by COVID-19, requires us to strengthen the capabilities of the national health system through all the available mechanisms and tools.

Data sources and methods used

As sources of information, the author used the statistical data of the World Health Organization, the Ministry of Health, Labour and Social Protection, the National Agency for Public Health, etc. In the paper, the authors used classical methods of analysis and synthesis, induction and deduction, history and logic, comparative and systemic analysis, as well as a contemporary approach to the trends of the COVID-19 pandemic.

Analysis and interpretation of results

Currently, the world economy is in a critical financial situation, that is why many countries have started to save on healthcare. Countries with a low level of socio-economic development, also refers to the Republic of Moldova, hardly cope with the economic and financial crisis, which causes an increase in poverty, which in turn directly affects the health of society. It should be mentioned that the COVID-19 pandemic highlighted the inefficiency, vulnerability and shortcomings of the national health system.

Pandemic shocks require us to investigate more details the problematic aspects of the financing mechanism of the health system. Therefore, for the beginning we will define the concept of **mechanism** by which we understand, first of all, a correlated set of financial relations, thus giving it the system significance. **The system** is a set of institutions, processes and behaviours that have established certain relationships between them. Secondly, we understand the notion of **mechanism** as a set of rules for transforming the effect of using advanced funds, especially consumed, in financial results [7, p.8].

The important thing is that the financing mechanism is integrated in two ways:

- *as a subsystem* – component part of the financial mechanism of the entity;
- *as a system*, which includes several components. Each form of financing has its own mechanism of realization, its elements and instruments.

The financing mechanism also differs within different entities, being determined by the organizational-legal form of the economic agent, the degree of association with other enterprises, the level of centralization of the financial resources' management, etc. The functioning of an entity financing mechanism involves the study of three basic elements [7, p.17]:

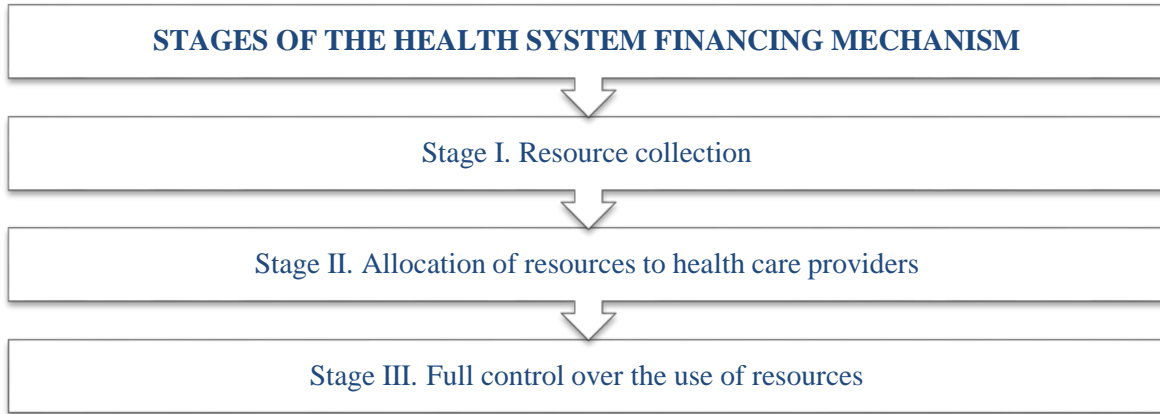
- 1) *determination of the financing need* – it is performed depending on the financing need of the investments and the current needs of the entity;
- 2) *determining the sources of financing* – is done taking into account the possibilities of access of the entity to different sources of financing;
- 3) *determining the financing structure* – is done so that the combination of different sources of financing to ensure minimum costs of financial resources and maximum effects.

Therefore, *the financing mechanism of the health system* is a combination of public and private resources. As public spending may not increase significantly in the future due to high public deficits, the main challenge for the decision makers is to bring more money into the system from private sources. In the case of the Republic of Moldova, the main private resources must be private health insurance and co-payments.

The researcher Copăceanu Cr. considers that *the financing mechanism of the health care system* is a whole set of actions of insurance, distribution and control of financial resources for a long-term perspective, based on contributions, taxes and co-payments, which will contribute to the achievement of strategic objectives of medical service providers [3]. With regard to the mechanisms for financing the European health systems through which funds are collected and allocated, we note that they are particularly complex and differ from one country to another. With the emergence of the state, social welfare changes are taking place at the level of health systems, in the sense of the state and society assuming responsibility for the health care of the population. There are a multitude of factors correlated with the size of funds that may be available for health: the tax base, the number of employees in the official sector, the number of poor households to be subsidized, the country's economy, etc. [2, p.124].

The financing mechanism of the national health system comprises 3 basic stages, reflected in figure 1.

Figure 1. Stages of the national health system financing mechanism

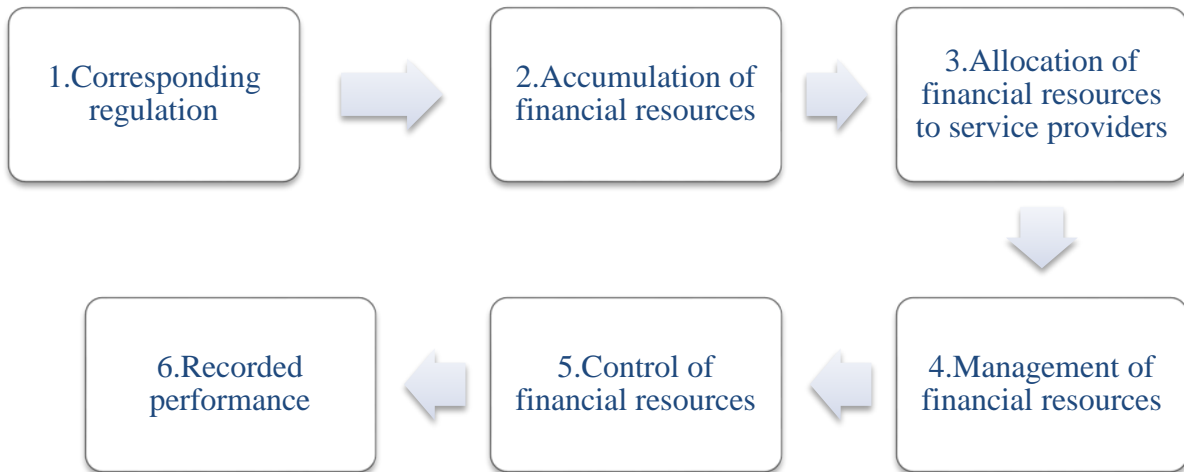


Source: compiled by the authors

In the *first stage*, the collection of the financing sources of the health system involves several sources, namely: compulsory medical contributions paid by the insured and the insurer, direct and indirect taxes, private health insurance premiums and direct payment of medical services by consumers. From the first stage derives the second one – that of the resources’ allocation, according to which the resources collected, through one of the mechanisms mentioned above, are allocated to the health care sectors (the primary, secondary and tertiary level) and medical service providers (hospitals, dispensaries, polyclinics, private offices). We consider the *third stage* as a tool for regulating and correlating the first stage and the second one, because by performing a rigorous and comprehensive control of the use of financial resources we will achieve performance in financing the financing system, as well as omitting the situations of the financial resources’ inefficient use.

According to the authors, it is necessary to reconfigure the financing mechanisms of the health system, in order to streamline both the financial flows and their management mechanisms. In this context, we propose the observance of the following stages of the financing mechanism of the national health system:

Figure 2. Reconfigured national health system financing mechanism

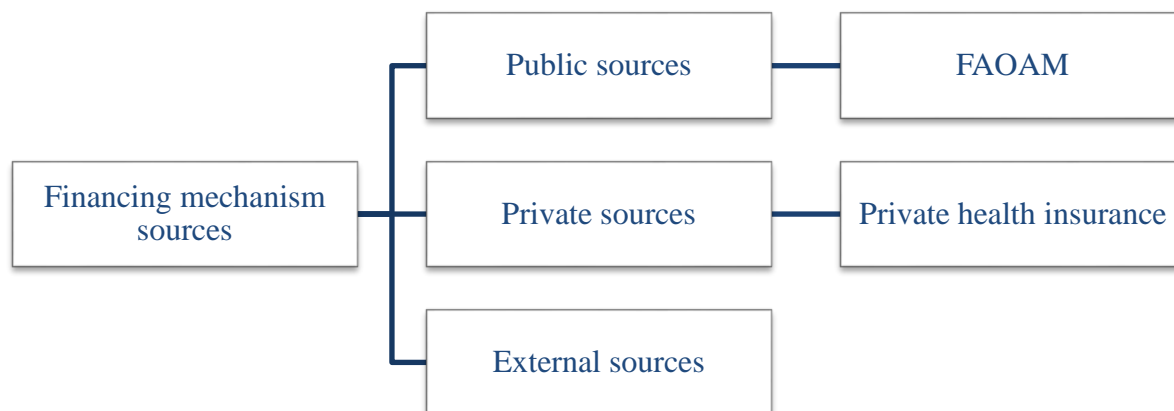


Source: compiled by the authors

Based on the fact that the funding mechanisms are affected by a number of endogenous and exogenous factors, we believe that the conjuncture proposed by the authors will allow the health system efficiency and modelling according to shocks and uncertainties that may arise along the way.

In this context, it is important to address the sources of financial resources for the health system, among which we can highlight: **public sources**, the accumulation of financial resources takes place on the FAOAM account (general taxes, medical contributions applied to employees and employers, external grants) and **private sources**, the accumulation of resources takes place through the economic circuit and represents the private income of the population, the rest being channelled to private health insurance, as shown in Figure 3 [1]. The distribution stage takes place through the participation of the intermediary of the National Medical Insurance Company (CNAM) in the case of public resources and directly by the beneficiaries or insurance companies in the case of private resources. Finally, the financial resources are used by the providers of medical services, represented by the public and private medical institutions, based on the contracts concluded with the CNAM, those with the insurance companies or the direct beneficiary-provider relations. Thus, the national health care system is the one based on the compulsory Bismark health insurance and is based on the insured's (CNAM) ability to pay, beyond the given limit being directly involved the beneficiary through private payments [1].

Figure 3. Sources of financing the health system in the Republic of Moldova



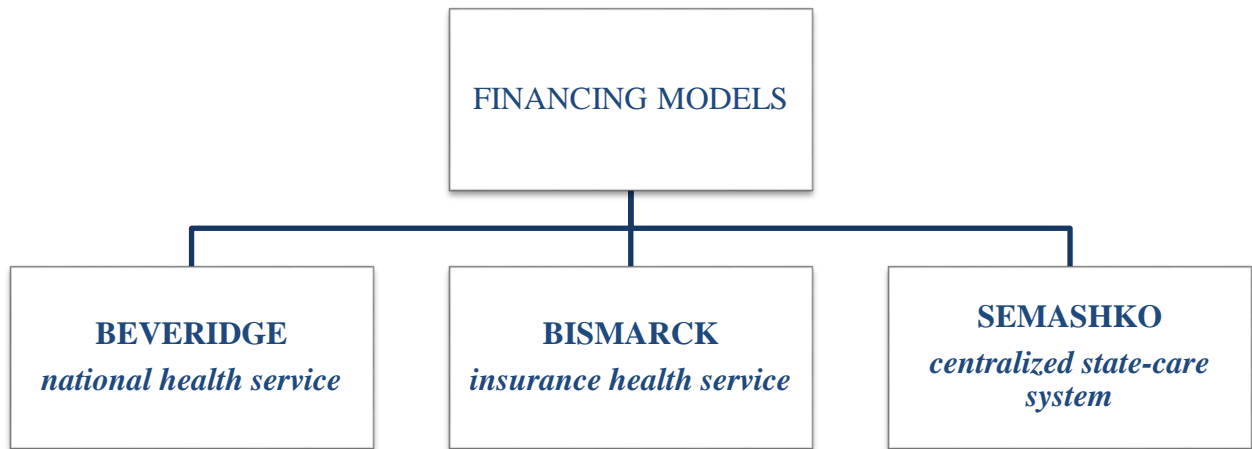
Source: compiled by the authors

According to the study conducted by the Independent Analytical Center "Expert-Grup", both public and private financial resources are involved in the national health system, including the external financial assistance [1]. Given that a large part of the expenditure of public medical institutions remains to be financed also from the medical services provided against payment to patients (private expenditure), the term "health expenditure" refers to all funds used by providers of health goods and services and include public funds, as well as private funds (personal expenses) incurred by the population when purchasing health goods and services, which are characterized by official and informal payments [1]. The official ones appear in the form of fees charged by private and public

medical institutions, as well as the payments made for the purchase of medicines, and the unofficial ones represent the amounts in kind or cash granted voluntarily by patients to express their gratitude. At the same time, public spending on health care is reflected in the budget and transposes state policy in this area, while private spending on health is rather the need and opportunity for citizens to complete the public supply of health services [1]. In order to identify the opportunities for reconfiguring the financing mechanisms of the health system, it is necessary to study the financing systems in the European Union. Therefore, the European public health systems are structured on the basis of three funding models, as shown in figure 4.

The Beveridge model, developed and proposed by the British, is used in England, Norway, Denmark, Sweden, Finland, Ireland, Italy, Spain, Portugal and Greece. The main source of funding for this model is general taxes. *The Bismarck model* is used in the Netherlands, Belgium, Luxembourg, Switzerland, France, Germany and Austria. The model combines elements of social insurance (old-age pensions, compensation for temporary loss of work capacity) and medical (sickness insurance). It is currently the most widespread model in Europe. *The Semashko model* as a legacy of socialist governance, was specific to the countries of Central and Eastern Europe, which are in the transition process from a centralized to a market-based planning system. The financing of the health systems was made from the state budget. Most healthcare systems in Europe use a revenue mix to sustainably fund services. The system of compulsory health care insurance in the Republic of Moldova was designed and operates based on the principle of operation of the Bismarck model.

Figure 4. Classification of health systems according to the financing model



Source: compiled by the authors in base of [3]

We mention that in all the countries of the European Union, the governments are involved in the financing of the medical systems. Most Member States use a combined system between social security contributions and direct government funding for health. Each country has developed its own health system based on the political, social, cultural and economic context, but is specifically influenced by the experience of developed countries in the field. Each national health system seeks to respond to new challenges according to its own characteristics, which require ongoing assessments and adjustments.

Thus, we cannot report on an ideal model that would serve as a standard for other systems [4]. The payment mechanisms used in the process of allocating financial resources to medical service providers are:

a) advance payment according to the advance case (a payment is granted for each case treated, depending on a predetermined cost);

b) budget broken down by categories of expenditures (the volume of the main elements of expenditures is established: personnel, medicines, food, materials, directing services, etc.);

c) global budget (it is a payment mechanism through which a global amount is allocated for the achievement of a predetermined volume of activities, in a determined period of time);

d) practice budget (a group of general practitioners can obtain a budget for providing medical care for a certain number of patients);

e) payment based on diagnosis (it is a mechanism in which the provider receives a fixed payment, established in advance, each time he treats an individual with a certain specified diagnosis - DRGs).

The financing mechanisms of the national health system are based on financing from public funds, through contributions to compulsory health insurance. At present, the Republic of Moldova needs to reform this funding mechanism in order to provide better access to a range of necessary services and to improve health outcomes. From a financial point of view, the main challenges are finding additional financial resources needed for the system and making optimal use of them. Underfunding of the health system is often cited as one of the main problems in the country [3]. The sustainability of the national health system is imposed by the possibility of collecting the necessary revenues to cover current and future expenses. Therefore, the authors consider it imperative to adopt good practices and to follow the model of the EU Member States, including Romania, to supplement the source of revenue to the FAOAM budget, with the claw-back tax identified as a new source to be constituted as own income of the Ministry of Health and subsequently to be allocated by transfer to the FAOAM budget or directly revenues to the FAOAM budget, for medicines that benefit the insured in outpatient treatment, with or without personal contribution, on the basis of medical prescription, in the health insurance system [5].

The claw-back fee, being assimilated to a tax obligation for all drug manufacturers present on the market through the holders of marketing authorizations of drugs, in order to finance the necessary health services for the whole community. Through this system, manufacturers of medicines that make products contribute to the financing of the public health system with amounts set according to the volume of revenues obtained. This mechanism, which involves the return of an amount to the financier for the same destination is used by states such as the Netherlands, Hungary, Poland, Belgium, the United Kingdom, Portugal, Ireland and France [5].

The pandemic shocks that have affected the whole world force us to reconfigure the financing mechanisms of the national health system. That is why, in our opinion, in order to combat pandemic shocks, as well as crises in the health system, it is extremely important to take into account the good practices of different countries that have gone through these conditions. Even if there is no universal recipe developed to deal with the crisis in this area, each country still acts independently, taking into account the level of development and resources available. It is obvious, however, that so far there are no quick solutions to the shock and crisis.

The possible solutions also differ according to the manifestations. The shocks that affected the global economy in the period before the official recognition of the crisis can be characterized as follows [6, p.31]:

- the general state of business in the global economy reflected the conjunction of three major shocks: rising prices; reducing the housing market in the US and some advanced countries; as well as the financial crisis. The interaction of these shocks has made it much more difficult to make economic and monetary policy decisions;
- commodity prices, even in the context of short-term reductions, are expected to remain high and volatile; however, if the commodity price trend is sustained, a new field for monetary, and in this case budgetary, counter-cyclical policies could be created;
- oil prices have moderated their growth, but uncertainty remains high, with signs of weak global growth indicating some demand response to high oil prices and improvements in supply conditions, which could lead to declining prices;
- however, the balance of supply and demand in the market remains tense, strong growth in demand, stimulated by accelerating resource activity and slow supply reactions in intensive emerging economies, leading to declining stocks and available capacity, which could high and volatile prices.

Originally generated, as mentioned before, by food and energy price shocks, the global financial crisis could significantly halt the fight against poverty. In a globalized world, where seemingly separate shocks and crises can quickly spread globally, the response must be global, coordinated, flexible and fast. The lessons of previous shocks and crises emphasize the importance of protective investments in long-term development, investments in infrastructure, in social development, in the quality of economic growth, etc. International financial institutions must help build bridges of multi-faceted policy responses to protect the poorest and most vulnerable economies from the immediate and long-term impact of the crisis, through actions aimed at supporting the financial and private sectors, assisting the developing countries within the process of managing the fiscal challenges to avoid long-term investment delays on which the relaunch and development depend [6, p.37].

In this context, we consider it relevant to attribute a new concept to the health system, namely *the financial shock of the health care system*, which in our opinion is welcome given that a number of problems persist in various areas that directly affect the revenues and expenditures of the health care system, in our case of the health system. According to researchers Mladovsky P. and others, the global financial crisis that began in 2007 can be classified as *a shock of the health system* – that is, an unexpected event caused outside the health system, which has a negative effect on the availability of system resources, or a positive effect on the demand for medical services [8].

We draw attention to the fact that the shock can be a medical one not only the financial one, for example the COVID-19 pandemic, which caused both an economic and a medical (pandemic) shock. Why medical? Because all countries in the world have been affected by the pandemic, and health systems have largely gone through a medical shock that has led the systems into a deep coma. If we make a remark, the medical systems, especially the medical staff, were the most exposed to the medical shock, which caused the medical crisis, lack of doctors, nurses, attendants, inability to space, beds to hospitalize all patients.

Currently, pandemic and economic shocks affect health decision-makers in three basic ways [8]:

→ *Health systems* require the estimation of revenues depending on the investment plan, determine budgets and the purchase of goods and services. Sudden cessation of budget allocations can cause major difficulties in providing healthcare.

→ *The decline in public spending* on the health system as a result of the economic shock occurs when the health system requires more resources, such as addressing the effects of unemployment on health.

→ *Abusive reductions* in basic health services can further destabilize the health system, if financial stability, equitable access to health services, and the quality of services provided, the increase in health and other long-term costs are affected.

Thus, *the financial shock of the health care system* – is a risk (a condition) that can generate problematic situations in many areas, which have a direct impact on health system revenues and expenditures, these problems, compiled can have serious consequences on both the system and of its performance. It is important to note that, in order to ensure the financial sustainability in the face of the financial crisis, as well as to improve fiscal preparedness in the health sector for financial crises, policies should be in line with the fundamental objectives of the health system.

If the health system is facing an economic shock, or financial crisis, decision-makers must provide in national health policy the possibility of maintaining, reducing or increasing the level of health spending. It becomes imperative to reallocate funds within the health system to increase its efficiency. For this purpose, a number of tools can be used to change the level of expenditure, in order to maintain the system as well as the application of an anti-shock therapy. In pandemic shocks, achieving the goals of the health system can be achieved through a series of actions, such as [8]:

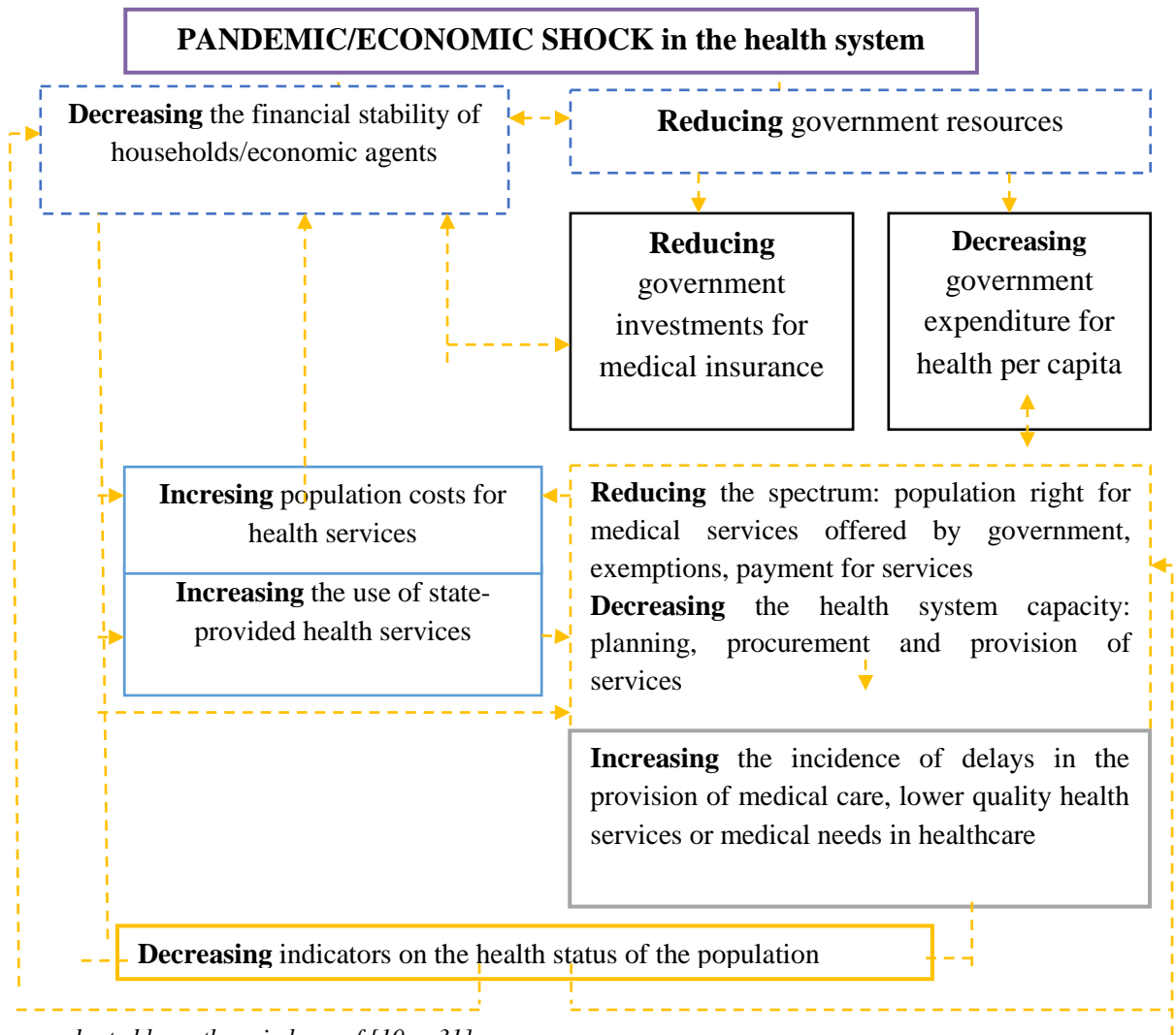
- *health status*: improvement of medical results and services provided;
- *financial security*: accessibility of the population to the requested medical assistance;
- *efficiency*: maximizing the health benefit in relation to the allocated resources and not admitting waste;
- *equity*: the provision of distributed health services in relation to the requirements of the population, and the contributions are established according to the ability to pay for the service;
- *quality*: represents the effectiveness of the clinical work expressed on the patient, which ensures safety, efficiency, accessibility, acceptability;
- *reaction capacity*: patients' expectations regarding non-medical actions, the way they are approached;
- *transparency*: providing reliable information on the characteristics of the health system, such as benefits, costs and quality;
- *responsibility*: monitoring and evaluation of performance, which is associated with tangible consequences (penalties).

We reiterate that worldwide health systems face budgetary problems when the level of public spending on health per capita does not correspond to the increase in demand for health services, they have fallen sharply despite the fact that demand is stable or growing. In the event of a pandemic, the economic problems of the public sector can be caused by several factors, such as: the financing policy of the health sector, the diminishing role of the public health strategy and social adaptation, used in financially vulnerable families

[10]. Any shock, be it pandemic or economic, presents a risk that can generate multiple health problems, affecting both government and household incomes and expenditures. These challenges can have serious consequences for the health of the population, as well as for the efficiency of the functioning of the national health system. Shocks, in general, have a direct impact on the health of the population, as the needs for medical services increase.

From the model presented, we conclude that the health system faces financial problems if government spending on per capita health does not match the rising or falling demand. The model presented demonstrates how important are the financing mechanisms of the health system, because the health status of the population depends on them, first of all. In shocking conditions, health system funding mechanisms need more attention to meet new challenges, so this must be a key concern for the administrative management responsible for the effective functioning of the national health system.

Figure 5. Model for reducing indicators on the health status of the population in conditions of pandemic or economic shocks



Source: adapted by authors in base of [10, p.31]

In conclusion, we specify that shocks and pandemic crises have destructive effects for countries with a poorly developed level, including the Republic of Moldova, which do not have sufficient financial support. Thus, being unable to obtain financial income to cover the necessary public expenditures or the impossibility to generate additional revenues, it led to the maximum reduction of public expenditures for the health field. In this context, being under the pressure of reducing public spending, the national health system was also affected. Research suggests that public spending on health in Europe has tended to decline after previous shocks and crises, often at a faster pace than other types of government spending. Therefore, the health system is vulnerable to depletion of financial resources from the national public budget, so it is necessary to identify new additional sources of collection of financial resources.

Conclusions and suggestions

The current structure of the financing mechanism of the national health system needs improvements, so as a prerequisite for the reform we propose to intensify internal control at each stage of the mechanism: collection, regulation, allocation, management, control of use of financial flows and financial performance. In general, this approach involves the funding mechanisms' reconfiguring, which will ensure the financial sustainability of the national health system. There is also a need to strengthen the capacity for efficient and modern governance of funding mechanisms in order to improve the health system, the health of the population, including the financial security, equity in the allocation of financial resources to health care providers, equitable access to health care, the quality and safety of the medical services provided, patient satisfaction, transparent and efficient management of financial flows for the health system.

In order to reconfigure the financing mechanisms of the national health system, we consider that the Republic of Moldova needs smart investments in the field of health. Therefore, for the proper functioning of the national health system we propose:

- the development of the national economy and the increase of the allocations for the health system;
- reconfiguration of the current financing mechanisms, through regulation, accumulation, allocation, management but also rigorous control of financial flows within the FAOAM;
- implementation of the mechanism for collecting financial resources through the claw-back tax, based on good practices, so that it is a new source of income for the national health system;
- consolidating the number of people who contribute to the system of compulsory health insurance;
- the budgets of the health system do not necessarily have to be bigger, but to be spent more intelligently (streamlining the use of available financial resources);
- strengthening investments in health, especially health promotion programs;
- increasing investments in health insurance, in order to reduce inequalities and social exclusion;
- prioritization of the health system by government institutions, in the process of distributing financial resources;

- harmonization of the financing mechanisms of the health system through the financing oriented on legislative criteria and SMART objectives, performance indicators, by harmonizing the legislative framework, which will ensure the sustainability and functionality of the health system in conditions of shocks or pandemic crises.

Finally, we conclude that the shock and crisis situations have highlighted the shortcomings of the mechanisms for financing the national health system, and to overcome the major challenges we need concrete objectives and appropriate tools to reset and modernize both the mechanisms and the health system.

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ECONOMIC FREEDOM: LOOKING FOR ANSWERS IN THE ENTREPRENEURIAL ACTIVITY

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Abstract: *The entrepreneur fires up the market mechanism through his actions or, in other words, is the driving force of the market process. However, in order to carry out the entrepreneurial activity and to enjoy a competitive market, it is clearly necessary to have a stable framework, based on freedom. The question is: how can economic freedom influence the entrepreneurial activity? To answer this question, we seek to identify and demonstrate (once again) the link between economic freedom and entrepreneurship. Economic freedom explains some aspects at the level of governmental influence on the economic activity, taxes on entrepreneurial activity, property rights, openness to international trade, the monetary system, etc. All these dimensions are focused on the way institutions exercise their influence on the rules of the game. A literature review was undertaken, and quantitative analysis techniques were used to achieve the abovementioned objective. Looking back, history proved that human evolution is based on the principles of freedom, regardless of the form it may take. Consistent with most of the studies available in the literature, we can conclude that countries with a high degree of economic freedom champion entrepreneurial activities. Economic freedom provides individuals that have entrepreneurial skills with the opportunity to act for a potential profit. Alternatively, (any kind of) restricted freedom causes changes in the behaviour of individuals and, by extension, in the activities of entrepreneurs.*

Keywords: *entrepreneurship, economic freedom, free market*

JEL Classification: *F02, F20, L26*

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Introduction

The differences between the levels of economic development among countries have been of interest in the specialty literature and, most of the times, have been explained by different degrees of economic freedom. Subsequently, these have also been explained by differences in the level of entrepreneurship. Under such conditions, we seek to exemplify

the connection between economic freedom and entrepreneurial activity in 11 post-communist countries that are now part of the European Union, namely: Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia. Identifying the connections between economic freedom and entrepreneurship is the keystone to understanding the differences between the levels of economic development of the countries. Starting from the premise of limited knowledge, we admit the importance of a vision both the specialty literature and on the reality reflected by the existing statistical data. The goal of this article is to exemplify the connection between economic freedom and entrepreneurship. The limitations of this article are evident based on two considerations: the relatively small size of the sample subject to analysis on the one hand, and the adopted approach (i.e. data observation) on the other hand. This research endeavour reiterates the importance of economic freedom for stimulating entrepreneurs and, implicitly, for economic growth. Promoting economic freedom is the keystone of entrepreneurial activity, and this aspect is illustrated in the eleven countries comprised in the sample.

Literature review

The entrepreneurial activity is centred on the individual, and how the latter acts within the market results in profit or loss. The context in which the individual acts can influence their behaviour and, implicitly, the results they achieve. The economic literature focused its attention to the way institutions and policies influence the entrepreneurial activity. Mises argues that freedom constitutes the environment in which the individual acts, having the possibility to choose between different courses of action (Mises, 2018 [1949], p. 280). To clear things up, he defines freedom as that state of affairs in which the individual's discretion to choose is not constrained by government violence beyond the margin within which the praxeological law restricts it anyway (Mises, 2018 [1949], p. 281). Significant references to the matter at hand are also found in Baumol (Baumol, 1996) and North (North, 1990). Baumol stated that one of the primary determinants of entrepreneurial behaviour, in a specific time and space, are the rules of the game. Thus, there are situations in which latter favour a focus towards a specific activity rather than another. In this context, the entrepreneurs' decisions will be guided towards entrepreneurial activities that provide a higher chance to make a profit (Baumol, 1996, p. 6). Improving the quality of institutions ultimately determines a shift in focus from unproductive or underproductive activities to productive ones that generate welfare (Baumol, 1996). North states that institutions and rules are the engine of society. Institutions can be formal and informal, but whatever form they may take, they contribute to a specific entrepreneurial behaviour. Thus, entrepreneurs adapt their strategies in order to benefit from existing opportunities or to take into account the existing limitations in the society in which they operate (North, 1990).

Building on the aforementioned opinions, we acknowledge the importance of entrepreneurial activity and the framework in which the entrepreneur operates. Therefore, we believe that economic freedom is one of the primary vectors in respect of attaining economic performances. By economic freedom we mean market-oriented institutions and policies. This topic was often approached in the specialty literature, which has revealed the importance of economic freedom in view of stimulating the activity of entrepreneurs. Empirical studies have brought to light the existence of a significant connection between entrepreneurship and economic freedom. Sobel et al. have studied a sample comprising 22

countries and found a positive relation between the level of economic freedom and the overall entrepreneurial activity, as well as the fact that the degree of regulation is a fundamental determinant for the rates of entrepreneurial activity (Sobel, R.S., Clark, J.R., Lee, D., 2007). Campbell and Rogers use an OLS model of net business formation and economic freedom and, consistent with existing studies in the literature, conclude that the existence of a higher degree of economic freedom determines a more intense entrepreneurial activity (Campbell, N.D., Rogers, T.M., 2007). A similar position is adopted by Nyström, as the results of the empirical study carried out by the latter prove that low levels of involvement of the governmental sector, a better legal structure and the security of property rights, as well as looser regulation of lending, labour and enterprises tend to boost the entrepreneurial spirit (Nyström, 2008). Following their own studies, Reynolds et al. (Reynolds, P.D., Miller, B., Maki, W.R., 1995) argue that a third of the economic growth can be explained by the entrepreneurial activity.

In accordance with the aforementioned, Bjørnskov and Foss pointed out that government involvement has a negative impact on entrepreneurship (Bjørnskov, C., Foss, N.J., 2008). Angulo-Guerro et al. consider that economic freedom encourages entrepreneurship as a discovery of opportunities and encourages entrepreneurship as necessity (Angulo-Guerrero, M.J., Pérez-Moreno, S. Abad-Guerrero, I.M., 2017). Wennekers et al. explain the variations in the level of entrepreneurship in different countries based on cultural and institutional differences (Wennekers, S., Uhlander, L. M., & Thurik, R., 2002) (Wennekers, S., Thurik, R., 1999). After conducting a specialty literature review, we identified an unanimously accepted opinion, namely that there is a direct connection between entrepreneurship and economic freedom. Building on the existing opinions, we set out to highlight the situation found in 11 countries in the former Eastern (communist) Bloc that are currently members of the European Union.

Methodology

This article aims to exemplify the connection between economic freedom and entrepreneurship. In order to achieve this goal, we have conducted a review of the specialty literature approaching the proposed topic and opted to highlight it using statistical data that analyse entrepreneurship, on the one hand, and the degree of economic freedom, on the other hand. The collected data refers to the year 2019 and is provided by Global Entrepreneurship Development Institute and The Heritage Foundation. Global Entrepreneurship Index provides information on the entrepreneurial skills, attitude towards entrepreneurship and aspirations of citizens in the analysed countries. Freedom Index is focused on analysing the business environment and the other factors that influence it. Of the important aspects, we mention observation of property rights, different types of freedoms, etc.

Results and Discussions

The issue of economic freedom has preponderantly marked a series of countries that have been under the communist regime for a long time. Under such circumstances, the transition to a market economy and, implicitly, the conduct of entrepreneurial actions has been a challenge. Thus, we set out to depict the current situation in 11 former USSR

countries in Europe that have joined the European Union. The analysed sample includes the following countries: Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia.

Table 1. *Economic Freedom for the selected countries, 2019*

Country	PR	JE	GI	TB	GS	FH	BF	LF	MF	T F	I F	F F	TOTAL
Bulgaria	62.5	41.9	35.1	90.2	63.9	98.8	62.7	68.4	88.0	86	70	60	69.0
Croatia	66.0	42.9	38.6	66.4	33.4	85.4	60.7	44.0	78.5	86	75	60	61.4
Czech Republic	74.8	47.6	52.1	82.6	52.1	97.6	72.4	78.1	81.5	86	80	80	73.7
Estonia	81.5	76.0	73.1	79.9	51.1	99.8	75.3	57.2	79.6	86	90	70	76.6
Hungary	60.9	45.2	35.3	78.6	31.7	85.0	61.1	64.7	81.8	86	80	70	65.0
Latvia	67.3	48.4	35.5	77.0	57.1	96.9	77.5	73.3	81.1	86	85	60	70.4
Lithuania	73.6	61.2	47.8	86.4	65.1	97.3	75.2	63.6	84.6	86	80	70	74.2
Poland	62.3	44.0	49.8	74.9	48.8	86.4	65.4	63.9	82.1	86	80	70	67.8
Romania	66.7	51.9	39.8	89.7	69.0	89.3	63.1	64.5	82.7	86	70	50	68.6
Slovakia	68.5	37.2	37.7	78.6	46.1	87.2	61.3	53.4	78.6	86	75	70	65.0
Slovenia	76.4	46.5	53.6	58.4	38.3	82.6	79.3	61.2	83.6	86	70	50	65.5

Source: author's processing using data available on The Heritage Foundation, 2019

Abbreviations:

PR	Property rights	JE	Judicial Effectiveness	GI	Government Integrity
TB	Tax burden	GS	Government Spending	FH	Fiscal Health
BF	Business Freedom	LF	Labour Freedom	MF	Monetary Freedom
TF	Trade Freedom	IF	Investment Freedom	FF	Financial Freedom

The degree of economic freedom registers values on a scale from 0 to 100, where 0 represents a society deprived of freedom, while 100 indicates the highest level of freedom. Table 1 illustrates the values of economic freedom registered in 2019 by the 11 countries in the sample. The highest economic freedom scores are registered by two Baltic countries (Estonia and Lithuania), which opened to competition, reduced the extent of governmental involvement in the economy, and developed an independent legal system. For some states, such as Slovakia and Slovenia, the marks of the communist regime are still difficult to erase, having some issues in the Rule of Law category (judicial effectiveness and government integrity). Although the economic freedom scores were overall moderate, Bulgaria, Croatia, Hungary, and the Czech Republic draw our attention via similar issues to the ones mentioned above, particularly related to the legal system. Corruption is one of the main challenges that both the states mentioned above and Romania are faced with. The Czech Republic and Estonia reduced red tape barriers to draw foreign

investments. Poland is one of the most important beneficiaries of subsidies granted by the European Union, which also resulted in a relatively open attitude towards foreign investors. Moreover, Estonia focused its efforts on reducing the rate of unemployment, while Latvia and Lithuania streamlined the incorporation procedure for new companies.

In the case of the analysed sample, economic freedom remains a stringent issue, with major implication for economic development. However, it is important to appreciate the evolution of the Baltic States, which chose to move away from the habits and customs of the former regime. The public policies in these states focused on economic freedom, open and competitive markets, free trade, protection of private property rights, etc. The transition to a free economy based on principles other than familiar ones is, however, a difficult process, but it cannot be omitted from discussions on entrepreneurship.

Table 2. Global Entrepreneurship Index for selected countries, 2019

Country	GEI	Attitudes ATT	Abilities ABT	Aspirations ASP	ATT Rank	ABT Rank	ASP Rank	GEI Rank
Bulgaria	30.1	32.4	26.5	31.3	62	73	57	61
Croatia	36.1	32.0	31.8	44.5	64	53	40	49
Czech Republic	43.5	34.7	42.6	53.1	53	37	32	40
Estonia	57.8	68.0	50.8	54.8	11	28	27	22
Hungary	46.2	36.1	48.7	53.8	48	31	29	33
Latvia	39.3	38.2	42.5	37.3	40	38	51	45
Lithuania	44.1	35.5	46.9	49.8	49	34	35	37
Poland	49.5	55.4	47.2	45.9	24	33	38	29
Romania	38.6	34.7	33.7	47.6	54	48	36	46
Slovakia	42.6	36.4	40.5	51.1	45	41	34	41
Slovenia	56.5	56.5	57.6	55.4	23	23	26	23

Source: author's processing using data available on Global Entrepreneurship Development Institute, 2019

To obtain a real picture of entrepreneurship, we believe it is relevant to use statistical data that reflect the entrepreneurial dimension. To this end, we chose to analyse the entrepreneurial activity of individuals in the 11 countries by looking into and processing the data available at the *Global Entrepreneurship Development Institute*. The *Global Entrepreneurship Index* structures entrepreneurship based on three dimensions: *attitudes*, *abilities*, and *aspirations*. In its turn, each dimension comprises sub-dimensions the main goal of which is to provide a clear picture of how individuals report to entrepreneurship. For the sake of clarity, we acknowledge the importance of listing the sub-dimensions of each main component:

(1) *Attitudes* refers to aspects such as: Opportunity Perception, Start-up Skills, Risk Acceptance, Networking and Cultural Support.

(2) *Abilities* analyses: Opportunity Start-up, Technology Absorption, Human Capital, and Competition.

(3) *Aspirations* focuses on: Product Innovation, Process Innovation, High Growth, Internationalization and Risk Capital.

Table 2 illustrates the scores obtained by the countries in the study sample for the three sub-dimensions, as well as their international level ranking. Estonians' *attitudes* focused on the conduct of entrepreneurial activities score net superior values, unlike those of other citizens in the analysed countries. With a 68/100 score, in terms of entrepreneurial attitude Estonians can be viewed as focused on discovering entrepreneurial opportunities,

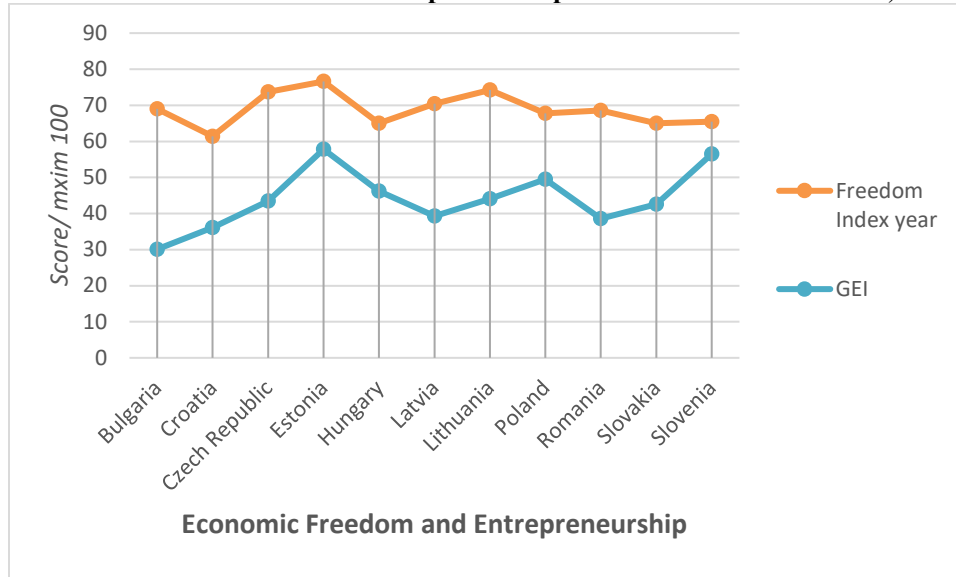
accepting risk and, moreover, having a cultural support that stimulates the opening of new businesses. At an international level, Estonia is ranked 11th in the ranking of entrepreneurship-oriented attitudes. Slovenians and Poles can be included in the same category, scoring 56.5/100 and 55.4/100, respectively. Croats and Bulgarians are at the other end of the spectrum, having the least entrepreneurship-oriented attitudes and scoring 32/100 and 32.4/100, respectively.

Skills are another factor of major importance in the conduct of entrepreneurial activities. This time, the highest scores in this category are found in the Slovenian population, with a 57.6/100 score. Slovenians are joined by Estonians, with a 50.8/100 score. Judging by entrepreneurial skills, these two countries are ranked 23rd and 28th, respectively, at an international level. Here too Bulgarians and Croats maintain their less entrepreneurial status, even in terms of skills, with scores of 26.5/100 and 31.8/100, respectively, alongside Romania with a 33.7/100 score.

Entrepreneurial aspirations analyse the capacity to innovate, to take upon oneself the decision to internationalise a business, etc. The most focused towards such perspectives are Slovenians, Estonians, and Hungarians, with scores of 55.4/100, 54.8/100 and 53.8/100, respectively, and ranked 26th, 27th and 29th at an international level. Bulgarians and Latvians are the opposite, that is the most reserved in terms of such aspirations, and they scored 31.3/100 and 37.3/100.

The shift from a socialist paradigm to capitalism engendered a series of challenges for the states in the studied sample. The implications of economic freedom on entrepreneurship cannot be omitted from any analysis. To this end, we think it is worth providing a brief illustration of the connection between the two components (see Chart 1).

Chart 1. Economic Freedom vs. Global Entrepreneurship Index for selected countries, 2019



Source: author's processing using data available on The Heritage Foundation and Global Entrepreneurship Development Institute, 2019

The Baltic States stand out by their wish for reform, which determined an intense championing of liberal institutions and, implicitly, of entrepreneurship. The Doing

Business reports deem the Baltic States as having resilient financial systems, capable to stimulate entrepreneurship. In 2020, according to the same report, Lithuania ranked 11th of 190 countries (81.6/100 points), Estonia ranked 18th (80.6/100 points) and Latvia ranked 19th (80.3/100 points) (WorldBank, 2020). At the other end of the spectrum are Bulgaria and Croatia, with lower values of economic freedom and the Global Entrepreneurship Index. The measures that would fundamentally help increase the level of economic freedom would refer to implementing a set fiscal reforms to reduce governmental spending and facilitate the operation of the legal system, as well as that of the labour market. The challenges these states are faced with are augmented by a high level of migration, ageing population, etc. The observations made for the 11 former USSR states are consistent with existing studied in the specialty literature, which argue the existence of a strong connection between economic freedom and entrepreneurship.

Conclusions

The activity of entrepreneurs requires a stable framework based on economic freedom, a framework that motivates them in their pursuit of profitable opportunities. In former USSR states, the focus towards entrepreneurial activities has been annihilated to a large extent during the communist period, and the acquisition of entrepreneurial behaviours is rather difficult. In this context, based on the analysed sample, we aimed to identify the way economic freedom stimulates entrepreneurship. After conducting a specialty literature review, we made a synthesis of the data regarding entrepreneurship and economic freedom in order to observe the current situation. The study is indeed limited by the size of the sample subject to analysis on the one hand, and the adopted approach – i.e. solely data observation – on the other hand; however, our future endeavours will also have us resort to statistical analysis in view of empirical argumentation.

The problems caused by the transition are still visible in certain states. However, countries such as Estonia and Latvia managed to catch up and reduce the level of influence of governmental structures in view of promoting an open attitude towards the free market, competition, and entrepreneurship. At the other end of the spectrum we have states such as Bulgaria and Croatia, where deficits still exist in eliminating the influence of the states and acquiring economic freedom.

In conclusion, we would like to reiterate the importance of economic freedom for stimulating entrepreneurs and, implicitly, for economic growth. Promoting economic freedom is the keystone of entrepreneurship, and the differences between countries illustrate, to a large extent, the capacity to waive short-term benefits in favour of long-term benefits.

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FINANCIAL MANAGEMENT PRACTICES FOR FARM PROFITABILITY

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Abstract: *This research is based on two studies that could help farm managers make financial decisions about equipping a dairy farm with an automatic milking system or conventional milking system or for choosing the most profitable hybrid maize used in agriculture for the production of maize grains. The data were collected following the accounting of agricultural companies. In the case of the analysis of the most efficient milking system, a t test was used to compare the farms according to the technology used and the statistical calculations were performed with IBM SPSS V.22 software. The second study was based on four maize hybrids, marketed by different organic production companies. Two variables were studied: the purchase price of the seed/ha and the productivity/ha for each of the 4 maize hybrids for which the relationship between the purchase price of the seed / ha and the productivity/ha of each seed hybrid was analyzed statistically corn under study. It was observed that the economic efficiency of farms is similar regardless of the milking system, for large farms the conventional milking system could be more profitable. In the case of maize hybrids, a direct connection is observed between the two variables because the higher the purchase price of the seed/ha, the higher the productivity per ha.*

Keywords: *Financial decision, Agricultural companies, milk production, corn production.*

This Article was presented as a paper at the 13th edition of the Annual International Conference Globalization and Higher Education in Economics and Business Administration (GEBA 2021), which was held at the Alexandru Ioan Cuza University, Faculty of Economics and Business Administration in Iasi, Romania from the 21st to 23rd of October 2021.

Introduction

The economic environment is characterized by a continuous process of search and analysis of tools and mechanisms that can lead to better financial management and thus to an increase in overall performance (Onofrei M., 2007). The economic importance of agriculture is found in the fact that part of the labor force in rural and urban areas is employed in this field, both for the production of agricultural products and machinery and

equipment used in agriculture (Scown and Nicholas, 2020). Agriculture is an instrument of economic development in rural areas. The purpose of agricultural holdings in the livestock and plant sector, in the current period, is to increase the quantity and quality of production obtained in order to meet the requirements imposed by the U.E. Financial decisions, in general, present elements of uncertainty due to the impossibility of predicting the future with maximum accuracy (Maina F. et al., 2018). Thus, certain unforeseen changes such as the price of a product or the fluctuation of the exchange rate or changes in interest rates lead to the destabilization of the activity. The number of dairy farms exploited for milk production, using the automatic milking system (AMS), is constantly growing, especially in Eastern Europe (Bijl R. et al., 2007). In 1987, the Dutch company Lely invented the milking robot, starting marketing in countries with advanced animal husbandry. In Romania, approximately 6% of farms use AMS, this percentage is constantly increasing (Matei A.C. et al., 2020). It is recognized that in agriculture, animal husbandry is a basic sector, especially in economic terms in countries considered developed, being the main source of high biological value proteins indispensable for human nutrition. One of the main reasons for investing in an automatic milking system is the desire to have a more flexible work schedule, but also more free time (Tse C. et al., 2017). Indeed, some previous research has reported labor savings after the adoption of the AMS, but at the same time it has been hypothesized that capital expenditures would increase due to high maintenance costs but also a much higher investment (Bravo-Ureta B.E. et al., 2007). The change in the milking system coincides with a change in daily work activities, which requires more attention to check the dairy cows. Maina et al. (2018) found that the adoption of new technologies in the dairy sector requires considerable investment with high capital expenditures. Efficiency is a major problem in the economy of agricultural production and is measured by comparing the value obtained with that expected (Scown and Nicholas, 2020). Economic efficiency in the case of farms is a product of technical efficiency together with allocation efficiency. In agriculture, the choice of hybrids is one of the most important factors influencing productivity/ha, often being able to even differentiate between profit and loss (Coleman and Hemsworth, 2014.) When choosing a maize hybrid, some details such as the temperature in the growing area, the level of annual rainfall, the incidence of diseases, soil nutrients, etc. must be taken into account, but many farm managers are easily influenced by the idea that the more expensive the seed for sowing, the higher the productivity, but this principle is not a healthy one for the company's budget (Scown and Nicholas, 2020).

Materials and methods

This research is based on two studies that could later help farmers make financial decisions about investments, such as equipping a dairy farm with an automatic milking system or a conventional milking system or choosing the most profitable corn hybrid. used in agriculture for the production of corn grains. The data collected for the first study come from the accounting records of dairy cows, registered in 2018. In this research, we studied 10 farms that use the automatic milking system and 20 farms that use conventional milking systems. The database included information on income (eg income from milk production and other agricultural activities), fixed costs (eg maintenance costs of buildings and machinery), variable costs (eg food costs, breeding costs, energy, water). All revenues and expenditures are expressed in one tonne of milk (using the total quantity of milk quota),

and subsequently these results were analyzed with a t test to compare farms with CMS with those with AMS. Statistical calculations were performed with IBM SPSS V.22 software.

The second study was based on four maize hybrids, marketed by different organic production companies. The data were collected following the accounting records of agricultural companies that produced grain maize, in non-irrigated system, in 2020. The database included information on the purchase price of the seed/ha, the selling price of production, productivity/ha, density of plants at sowing, etc. The 4 corn hybrids were sown on nearby soils benefiting from the same maintenance conditions as: precipitation (l/m²): March: 60, April: 62, May: 74, June: 102, July: 14, August: 30; density: 70,000 plants/ha. Sale price of corn grains 1080 RON/to. The expenses for the exploitation of a ha of land for corn production were fixed, for all the 4 corn hybrids studied, ie 1480 RON/ha, to which are added the expenses with the acquisition of the seed which varied between 512-590 RON/ha. The average productivity was calculated at the standard moisture content of 14% maize grains. Two variables were studied: the purchase price of the seed/ha and the productivity/ha for each of the 4 maize hybrids. The relationship between the purchase price of the seed/ha and the productivity/ha of each maize hybrid studied was statistically analyzed.

Results and discussions

The annual economic reports are generally of interest to farmers who pay particular attention to the finances that represent the performance of that farm (Scown and Nicholas, 2020). The farms in this sample can thus be characterized as farms that want to obtain and keep track of financial performance, their purpose being to help make the best management decisions.

Table 1. Description of the input and output variables used to analyze the efficiency and average values (with the std deviation) for farms with automatic milking system (AMS) and those with conventional milking system (CMS)

Variable	Data from farm accounting	AMS (n=10)		CMS (n=20)		p-value
		Average	Standard deviation	Average	Standard deviation	
Animals	Total number of cows	176	27,9	165	28,2	0,76
Capital expenditure (RON/ton milk)	Expenses for buildings	202,2	84	184	79	0,91
	Expenditure on machinery and equipment	401,5	170	304,4	150,2	0,0028
	Total capital expenditures	603,7	254	488,4	229,2	0,0030
Personnel expenses (RON/ton milk)	Total staff costs	484,1	78	512,3	176,47	0,60
Expenditure on materials (RON/ton milk)	Feed for animals	50,23	15,43	51,4	12,82	0,28
	Concentrates + premixes	329,32	26,74	328,46	28,5	0,98
	Fertilizers	48,65	9,32	49,88	9,72	0,18

	Pesticid	12,3	2,78	12,1	3,14	0,096
	Reproduction	43,42	12,4	42,98	11,8	0,68
	Medication	64,2	4,5	64,4	4,2	0,16
	Energy and water	74,67	8,3	75,8	9,1	0,001
	Elimination of manure	4,8	1,25	4,84	1,4	0,46
	Total expenditure on materials	627,59	80,72	629,86	80,68	0,12
Revenue (RON/ton milk)	Milk income	1600	130	1645	129	0,74
	Income from the sale of animals	120	24,5	116	24,4	0,61
	Revenue from other activities	25,2	4,7	24	4,7	0,45
	Total revenue	1745,2	159,2	1785	158,2	0,90
Net production (RON/ton of milk)	Total revenue - Expenditure on materials	1117,61	78,48	1155,14	77,52	0,77

Table no. 1 presents an overview of the entrances and exits for the 30 farms studied in total. Expenditures and revenues were reported per tonne of milk to allow comparison between lactation farms (305 days) and milk weight in fats and proteins. As expected, capital expenditures were significantly higher for AMS farms than for CMS farms. These higher costs are due to the higher costs of maintenance and construction of buildings and facilities, because in the case of AMS farms the rate of equipment replacement is higher. However, no estimates of the economic life of an AMS are available, so it would be beneficial to assess the lifespan of the AMS to allow a reliable comparison with the farms where CMS is used. In terms of staff costs, they are higher on farms with CMS, RON 512.3/t milk, because more employees are needed to milk cows, while on farms with AMS staff costs do not exceed 484, 1 RON/t milk. The costs of materials are approximately the same in both situations, because the animals benefit from the same ration of food, the same drug treatment, etc. No differences were observed between farms with AMS and those with CMS in the productions sold, the net income resulting from the sale of the productions registering close values. The total revenues for farms with AMS and CMS were 1745.2 RON/t milk and 1785 RON/t milk, respectively, and the net yields were 1117.61 RON/t milk for farms with AMS and 1155.14 RON/t milk for farms with CMS.

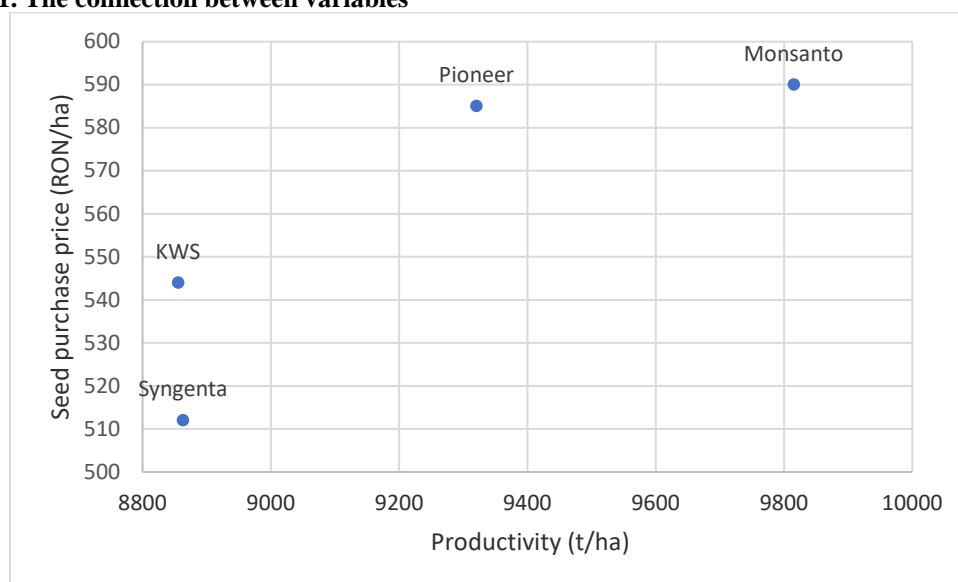
Therefore from table no. 1 it can be seen that farms with AMS have higher capital expenditures, but the net production does not differ between farms with AMS and those with CMS. This shows us that the small, insignificant differences in personnel and material costs observed in CMS farms, compensate for the capital expenditures of AMS farms. Bijl R. et al. (2007) found that investing in AMS is profitable. The results of previous studies showed that investments in AMS were not profitable for farms in the Netherlands and the United States. The results of the current study show that net production does not differ depending on the milking system, indicating that the economic efficiency of farms with AMS and CMS is similar. However, farms that use milking robots are expected to be more profitable in the future, with increased labor and energy and water costs. Maina et al. (2018) found that the implementation of new technologies in the dairy sector requires significant investments with high capital expenditures. A major disadvantage of AMS is that it can milk a limited number of cows/day, and on large farms, such as some in the US, AMS is

not profitable because it requires a large number of milking robots, which leads to a investment, while labor costs are lower in the US than in Europe (Matei A.C. et al., 2020). Regarding the second study, it was found that there is a correlation between the seed purchase price and productivity per hectare.

Table 2. The characteristics of the corn hybrids studied

Company/Hybrid	Seed purchase price (RON/ha)	Average productivity at 14% humidity (kg/ha)	Revenue from the sale of production (RON)
PIONEER/P9537	585	9320,80	10.066,46
MONSANTO/DKC5141	590	9815,44	10.600,67
KWS/KINEMAS	544	8855,65	9564,10
SYNGENTA/COBALT	512	8863,24	9572,29

Figure 1. The connection between variables



There is a direct bundle between the two variables because the higher the purchase price of the seed/ha, the higher the productivity per ha. However, it is not recommended that a high seed price be expected to have a high yield because traders can change prices depending on demand but not necessarily on quality. In this case, all four hybrids studied were profitable because the expenses varied between 1992 and 2070 RON/ha and the incomes varied between 9564.10 and 10,600.46 RON/ha only from the sale of the production to which can be added the subsidy for diesel and land area subsidy.

Conclusions

Regarding the study based on dairy farms in Romania that use automatic milking systems and conventional milking systems, to investigate whether the economic efficiency

differs depending on the milking system, so that in the future farmers can get the best financial decision. Farms with AMS had higher average capital costs (603.7 RON/t milk) compared to CMS farms (488.4 RON/t milk). Total labor costs and net production were not significantly different between AMS farms and CMS farms. Thus, the economic efficiency of farms with AMS and those with CMS was similar.

In the case of the corn hybrids used, a direct connection is observed between the two variables because the higher the purchase price of the seed/ha, the higher the productivity per ha. However, it is not recommended that a high seed price be expected to have a high yield because traders can change prices according to demand but not necessarily according to their productivity or quality.

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CUSTOMER ORIENTATION AS A BASIC PRINCIPLE IN THE CONTEMPORARY ACTIVITY OF THE BANK

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Abstract: *An open and sincere orientation towards solving problems and satisfying customer needs is the key used by marketing to open the door to success for any business. There is only one way to create and sustain superior long-term performance by a financial institution: exceptional customer care backed by constant innovation. In fact, banks have adopted the concept of marketing as a utility - the ability to create and retain profitable consumers - and see the customer as the main driving force of their business. Creating customers requires the bank to monitor the business environment in order to react promptly to changes in the needs of existing and potential consumers of financial-banking services, so that they become loyal customers of the institution. In contemporary economic conditions, consumers can choose what, when, how and how often to buy a product. The better the bank's offer synchronizes with the requirements, preferences and desires of consumers, the more loyal they become to the financial institution, willing to use more financial products and services, generating profit for the bank. The strengthening of customer relations becomes even more current in the conditions of the Covid-19 pandemic crisis, arising from the need to maintain a very close contact with customers to ensure good information about changes taking place at the network level, about the measures taken by the bank, about the possibilities of remote banking, etc. This situation forced the banking management to look at things differently, to change certain visions and approaches, because it caused the approach and acceleration of the processes that were foreseen for a more distant future. The main objective of this study is to provide a practical perspective of the customer orientation of the bank activity in order to retain the consumer of financial services and, thus, ensure the viability and stability of its activity.*

Keywords: *Customer orientation, customization, financial-banking services, preferences and desires of consumers, bank's client, customers' needs, customers' behavior, marketing.*

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Introduction

The objective of the banking activity is to maximize the profit by increasing the sales revenues and consolidating the position on the market, the realization of which is possible by ensuring the satisfaction of the consumers of financial-banking services. In order to achieve the expected performances, the banks must satisfy the demands of the customers through its products and services. The bank's customer orientation should be seen as a customer relationship management tool designed to generate long-term sustainable profits by ensuring management of target customers and available capital. At

the same time, the bank's customer orientation in modern banking becomes one of the most significant competitive advantages, which determines the institution's ability to generate additional profit through deep understanding and efficient satisfaction of customer needs. Against the background of accelerated global development, the banking system is experiencing an ongoing struggle for existing and potential customers. In order to ensure a stable activity in the conditions of intensifying the competition on this market, the banks develop customer orientation strategies, which in fact represent a continuous interaction between the bank and the client, a relationship started and constantly maintained by them. Customer orientation means ensuring a quality product or service, at all times, for customers who request it. In the current economic conditions, banks actively participate in the development of financial services, being focused on the client and his needs. In relation to the client's needs, banks create the necessary tools to model complete financial services packages and modules for a good relationship between the financial institution and its client, meant to support the modeling of the country's economic process.

Given that the offer of products and services has multiple common characteristics and aims to meet the same needs, each bank is required to stand out through its customer orientation strategy. Thus, the bank management aims to implement a customer orientation policy based rather on ensuring the relational balance, the communication between the bank employee and the customer becoming an advantageous exchange of information. The most important element of this strategy is to communicate in as many ways as possible with potential and current customers in order to attract and retain them. Strengthening the relationship between the bank and customers requires the existence of a permanent demand for improvement. If meeting customer needs is a priority for the bank, then the bank-customer relationship will ensure loyalty and, consequently, the customer will be loyal to the bank. Customer gratitude is the best and cheapest marketing tool. A larger number of customers gives the bank a more advantageous position than its competitors and, respectively, a larger market segment, which will ensure a long-term profit. Decoding the consumer's needs requires extensive research on the criteria for purchasing decisions, criteria that express the consumer's point of view on his own needs. The orientation towards the client, towards his real needs, is obligatory in an efficient banking management approach.

Literature review

An institution is successful insofar as it manages to develop very good relationships with customers (immediate beneficiaries of its products and services) and if it has the capacity and ability to provide products and services appropriate to the needs and at that level of quality that brings customer satisfaction. Customer orientation assumes that the institution that knows what the customer wants and expects must ensure that the product or service developed is consistent with those expectations (Ettlie, 1994). In essence, customer orientation means respecting the wishes and needs of the customer, anticipating them and then acting accordingly (Barends, 2019). During the evolution, the following possible interpretations of the term customer orientation were manifested, which emphasize different aspects and working principles.

Table 1. Customer orientation according to situational interpretation

Informational orientation	Kohli/Jaworski 1990, Kohli și al. 1993, Johnson 1998	Acquisition, analysis and use of customer information.	Systematic and periodic studies on customer satisfaction and loyalty.
Philosophical and cultural orientation	Kobi/Wütrich 1986	Employee behavior in relation to customers, treatment applied to customers.	Workshops on culture, seminars, analysis and processing of models of situations and behaviors.
Orientation towards results and interaction	Homburg 1998, Homburg/Werner 1998	Quality of products and services, interactive customer-oriented behavior by fully meeting customer expectations.	High quality of products and services, active complaints management, fast and uncomplicated reaction to the special requests of customers, strong motivation of employees.
Orientation from the perspective of the company and the client	Meyer/Dornach 1998, Homburg/Werner 1998, Droege &Comp. 1998	Quality of advice, responsiveness to customer proposals, responsiveness and sincerity in informing clients.	Activities regarding customer structuring, measuring customer satisfaction and customer loyalty.

Source: Bruhn, M., 2004, pp. 17-24

Zaltman (2003) states that a firm that focuses on customers and listens carefully to their opinion has a future. This gives the management team the information they need to assess how big the challenge is, especially in terms of their latent needs, and ensures improved teamwork, the creation of a business model and a successful marketing plan. Although today's customers are more different from each other, more discerning and more demanding than before, the problem of marketers has remained the same: knowing customers, developing solutions to their needs, establishing with them an appropriate link that leads to customer satisfaction and profit collection from the activity carried out (Fisk, 2008).

The relationship with the client is achieved through a continuous interaction between the client and the institution, a relationship that must be developed and cultivated. In order for a potential customer to become a customer attached to this institution, the bidder-customer relationship goes through the following stages: potential customer, probable customer, first purchase customer, occasional customer, loyal customer. From a low level of knowledge about a customer, a high level of knowledge can be reached through this relationship, and the level of customer attachment is measured by: the duration of the relationship with the customer and the number of transactions (Kretzner *et al.*, 1991). The customer-oriented institution promotes a different approach, called intuitive-reactive marketing: listening to customers, using different distribution channels, innovative market offerings, etc. (Kolter, 2004). Judicious customer knowledge provides an opportunity for the institution to make more efficient use of distribution channels, market opportunities, factors of production, and assets. Customer orientation is directly related to the goods and services of the institution, as well as the interaction between the bidder and the client. Thus, this concept is described by a dynamic relationship between the client and the institutions.

The primary goal of customer orientation is to meet customer needs, expectations, ensure maximum utility of the product and service to the customer, and not to gain an advantage over competitors in the market (Bruhn, 2001). An enterprise is customer-oriented when its activity meets the following characteristic features: high quality of products and services, active management of complaints and notifications, rapid and uncomplicated response to special customer requests, strong employee motivation (Bruhn, 2001). An interactive customer-oriented behavior is distinguished by the total satisfaction of customer expectations, by an appropriate relationship with employees of the institution, including cases of complaints or special wishes.

Of course, the process of attaching the customer to the supplier is particularly complex and includes several stages: a) analyzing customers according to potential, b) segmenting customers according to their value, c) researching customer satisfaction, d) wording recommendations for strategy and action (Eskert, 1994). Each stage involves the knowledge and use of a specific tool and the undertaking of multiple actions. In this way, the customer's attachment to the bidder is the result of a process of implementing customer orientation. In order to maintain the relationship with customers, barriers can be established, which make it difficult for the customer to migrate (Fornell *et al.*, 1992) and which can be achieved through a number of tools: the provision of certain clauses in contracts, the provision of facilities through price, communication of financial, social or psychological risks, formation of customer habits, etc.

The keystone in building lasting relationships with customers is to ensure a higher degree of value and satisfaction for the customer. Satisfied customers are more likely to become loyal customers, and loyal customers are more likely to give the institution a larger share of the purchases they make (Kotler, 2004). The principle of customer orientation implies that the bank does not focus on its product as such, but on the real needs of customers. At the same time, banks do not abandon the forced imposition of services and focus on maximum customer satisfaction. This requires a clear statement of the bank's objectives, the formation of ways and means to achieve them and the development of specific measures for the implementation of plans to segment existing and potential customers (Лосева & Козлов, 2015).

Customer orientation in banking

Contemporary banking is a customer-oriented one, adopted in order to increase the level of consumer satisfaction, as well as the loyalty of those of particular importance to them. To this end, banks continuously identify and collect customer data and information in order to shape their offer in line with their priority objectives. Customer orientation is a guarantee of the success and maintenance of the financial institution on the market, which leads both to the loyalty of attracted customers and to the acquisition of solid competitive advantages. Creating a "portfolio" of customers is an increasingly difficult task today, because being assailed by a wide variety of products and services, brands, prices and suppliers, attracting customers means first and foremost, deciphering the mechanism of thought and action of customers, in making the decision to opt for a particular brand or product. Banks currently adopt and demonstrate a clear customer orientation, justified by the following:

- the demands of consumers of financial-banking services are constantly increasing and banks need to adapt their products and services to meet them;
- competition in the banking market is fierce and competitors are introducing improvements to catch up and outperform innovative financial institutions;
- customers are quickly getting used to the banks' offer and have higher and higher expectations.

Thus, in order to maintain their market positions and strengthen it, banks focus their efforts on understanding and meeting the needs and expectations of current and potential customers. In this respect, increased attention is paid to the performance and conformity of the product and service, the assigned costs, the delivery method, the degree of safety, the impact on the current activity and the future evolution.

The bank as a financial intermediary is considered to be customer-oriented if:

- the offer includes high quality products and services. Quality is the best policy for ensuring customer loyalty, the most effective way to defend against competition from other banks and non-banking financial institutions, as well as the only way to develop and collect expected profits. In fact, there is a direct relationship between the quality of products and services, the level of customer satisfaction and the profitability of the bank. The financial institution needs to know how consumers perceive the quality of its products and services and what quality they expect to receive and, respectively, should try to offer more in terms of quality than its direct competitors. In contemporary conditions, what is defined by banks as a top banking product or service will soon be perceived by the customer as a minimum quality standard, creating important challenges for the customer loyalty and retention process. The major danger in this context becomes the ease of the process of changing the banking partner for any customer - currently, globally, about 40% of customers are not sure that they will not change their partner bank over a period of 6 months;
- applies active complaint management and pays special attention, a quick response to special consumer demands. Although banks seek to retain customers by ensuring their high satisfaction with the quality of products and services, there are many cases where customers are dissatisfied. This can be capitalized by implementing complaints management as an important element of a customer-oriented activity, given that specialized studies show that two out of five customers leave their current banking partner after the first negative experience. The development of complaints management by banks aims to promote the development of a favorable relationship with customers, increase customer satisfaction and loyalty. Thus, it is intended that, following the development of specific complaints management processes, through the way the bank reacts to the dissatisfaction expressed by customers, customer satisfaction will be restored. Customers' reactions to their dissatisfaction with the bank's products or services may vary: they may migrate, complain, complain or communicate negatively with third parties. By applying complaints management, the financial institution meets these reactions, aiming to obtain for customers the satisfaction of resolving complaints as a result of the process of processing information by the complainant, which compares the subjective expectations related to handling and resolving the complaint by the bank with the actual conduct of the process of receiving, processing and resolving the complaint;
- applies a strong motivation of employees. In order to provide excellent customer service, the bank's human capital should be sufficiently motivated. Every employee is able to positively or negatively influence the client's perceptions and preferences. Based on a

mentality, a "marketing culture", the bank's staff, especially those in the front office can at some point turn an "apparent" problem into an opportunity or competitive advantage.

Customer orientation is essential to achieving customer satisfaction. A perspective on customer expectations and satisfaction allows financial institutions to improve customer orientation. Monitoring customer satisfaction produces important information that makes it possible to supervise their business and improve bank-customer relations. Once the bank knows what it likes and does not like about certain categories of customers, it can implement improvements oriented towards certain objectives, which is, in fact, the customer-oriented itself.

Customer financial satisfaction results from:

- saving money (for example: a lower interest rate, set for loans from the bank, lower fees or cancellation for certain services);
- monetary gain (for example: a favorable interest rate for the resources kept in the bank account);
- the possibility to get extra comfort (for example: access to account resources at any time from any corner of the world).

Adding value-satisfaction to the products and services offered by the bank can be achieved by personalizing them. Thus, the bank's customer-oriented approach is a system of management measures of the financial institution, which offers its customers support and satisfaction of their requirements for a bank-customer reality, which ensures the solution of the problem of attracting, retaining customers and developing a customer base. Customer orientation measures include:

- at corporate level: organizational structure, business processes, technologies, standards, IT infrastructure, Public Relations (PR), etc.;
- at individual level (level of a specific employee), including staff selection and training.

The basic pillars of a customer-oriented activity, which will ensure the efficient management of customer expectations, both corporate and retail, determining the improvement of the quality of banking products and services are:

- knowledge of the client and his needs: his preferences according to risk aversion, his behavior regarding investments and savings, customization of products and services according to the client's life cycle (be it a legal entity or an individual). Banks must respond to the financial needs of customers with a personalized offer, ensuring the gaining of customer trust through mutually beneficial long-term relationships by building "win-win" relationships, both quantitatively and qualitatively;
- harmonization of the relationship between the banking product and the promotion and distribution channel. Optimizing distribution and promotion channels involves moving from the current situation of channel development to the next step: developing products and services to maximize channel efficiency;
- increasing trust in the bank by ensuring a high degree of transparency, financial education, taking into account the interest of each client at any time and situation. Bank customers not only want to get money or capitalize on their savings, but they want a more personalized relationship with the financial institution, a relationship that gives them confidence and a sense of control over this relationship. Differentiation is obtained at the level of trust and satisfaction;
- strengthening the customer-bank relationship through care, quality and frequency of interaction. Attention must be focused on customer retention by understanding the factors

that determine their satisfaction rather than the repetitiveness of the act of consumption. Customer satisfaction throughout the life cycle of the established relationship is a premise for their retention and subsequent loyalty;

- development of unitary policies and strategies regarding the characteristics (eg price, structure) of the offer of products and services at the level of all promotion and marketing channels, strategies whose main point is customers, with their real needs, understood through economic, behavioral filters, emotional and moral. The strong migration in the digital space has determined banks to develop products and services adapted to this environment, as well as to engage in building communities with their customers, where the main condition is that any communication approach is transparent, in a language accessible to consumers.

Orientation of the bank towards the client in the conditions of the COVID-19 pandemic

The period of the COVID-19 health crisis gave birth to the "new client", more vulnerable, insecure and less in control than ever, more financially constrained, looking for interactions without direct contact and more prudent in decisions. In order to succeed - and perhaps even survive - in this new reality, banks have had to become more connected, more digital and more customer-oriented than ever. The situation we are in is unprecedented, affecting every aspect of our lives and creating a "new normal" of daily life, the rules of economic activity and personal life. The way in which financial-banking services are consumed has evolved a lot during this period, characterized by a great impact, both from the point of view of the activity, and of the security and stability on the business environment. The COVID-19 pandemic has accelerated the digitalisation of the banking sector, as customer expectations continue to change, causing structural and supply and demand changes (Mistrea, 2021).

The pandemic has led to an incredible transformation, as banks have moved much of their operations and customer interactions into the digital space and have been forced to provide access to customers using alternative, remote, online channels. In order to survive the crisis and continue their activity, banks have been forced to adapt quickly to new circumstances, conditions in which digitalisation presents a multitude of challenges in the complexity of day-to-day operations. In this way, banks have developed their remote service systems, offering consumers more convenience and safety. They provide consumers with access to banking services and products, from home, from work or from anywhere the customer feels comfortable and safe 24/7, from any geographical point. Banks have taken various measures to stimulate remote customer service, by introducing facilities for online transactions, necessary to retain customers, in terms of limiting visits to bank counters. In order to prevent the spread of COVID-19, consumers have been encouraged to use cashless payments, such as: payment cards, internet-payments applications, mobile payments, credit transfer (payment order), which allow payments to be made from any computer or mobile device.

New online banking facilities have been introduced, such as cash by code, cash withdrawal service without the presence of the card, online deposits at a better rate than the bank's counters, the application of preferential rates for the execution of remote payment orders, home delivery of cards, creation of online current accounts and free

transfers between current, card and own deposit accounts, launching various products in support of SMEs and other categories of customers. In addition to the increased use of technology to sell products and services, various applications, emails and website messages are used to interact with consumers in order to maintain connectivity with customers. There are customers who, even if they have digital capacity and purchase digital products and services, they are not always able to satisfy their very specific, complex and urgent needs, requiring peer-to-peer services.

For people who prefer to go to the counter, the banks have provided a special self-service place, equipped with ATMs and Self-Service Terminals, which offers cash out, cash in and payment operations. At the same time, they have the support of the banking staff - the meter greeter - who guides them to carry out the first online operations. Aware that customer revenues have been severely affected by the restrictive measures imposed in the context of the pandemic, banks in the Republic of Moldova as well as banks around the world have taken various actions to ensure continuity of collaboration with customers. In this regard, the postponement of rates on bank loans has eased the financial burden, albeit in the short term, for many debtors in difficulty - companies forced to close or reduce their business, entities affected by supply chain problems, unemployed or low-income individuals.

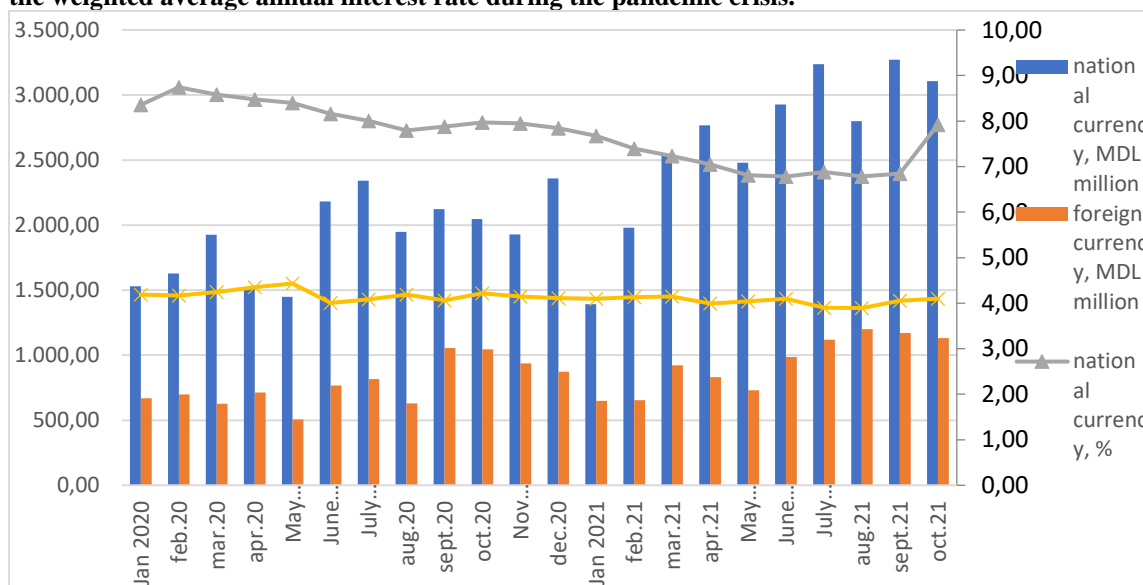
On March 17, 2020, the Executive Committee of the National Bank of Moldova (NBM) issued a decision allowing the licensed banks the flexible management of the payment obligations of individuals in difficulty of payment for loans contracted, in conditions of urgency, and by the decision of April 3, 2020 the NBM allowed banks to postpone or change the deadlines for payments and the amounts of payments due until June 30, 2020 to loans to legal entities. In this regard, banks have offered customers (both individuals and legal entities) individually several facilities, both for loans, advances, and leasing receivables, such as: payment of loan installments and payment interest for the first months of the pandemic was transferred for payment in subsequent months; no penalties and late payment interest were charged; the loan repayment schedule was modified without charging the clients the commission for modifying the contractual clauses, etc.

As the danger has not passed, uncertainty about the evolution of the pandemic is growing, budget imbalances are widening and funding conditions are tightening, facilitating access to finance remains an objective to be met, to ensure the necessary mechanisms for economic regeneration. In this regard, the licensed banks of the Republic of Moldova continue to grant loans under the normal regime, in accordance with their internal policies and regulations and in accordance with the legal norms and regulations of the NBM. The banking market in the Republic of Moldova is, unfortunately, characterized by excessive standardization of certain products, such as credit, in order to shorten the analysis time of the applicant (which unfortunately came to be considered a factor of competitiveness) to a period that, as a rule, it is insufficient to understand the client and the specifics of the business to be financed. Accurate identification of the risks associated with these operations should be only a key factor in parameterizing (structuring) those transactions and not an absolute obstacle or approval for them.

The COVID-19 pandemic caused disruptions in economic flows and the lockdown caused delays in corporate cash flow, declining consumption in some areas and contributed to behavioral changes and as a result led to a reinvention of the business model for banks from the Republic of Moldova and beyond. As the main financiers of the economy, the role

of banks has become crucial - to help save the economy and jobs. Thus, banks need to rethink the traditional way of assessing potential borrowers, focusing on the importance of choosing the present moment. The value of new loans granted in national currency in September 2021 reached the figure of 3270,49 million MDL (Moldovan lei), which is a volume about 2,3 times higher than the volume of loans in lei granted in May 2020 – 1448,03 million MDL, in the conditions in which banks decreased the interest rate charged for these loans from 8,4% in May 2020 to 6,84% in September 2021. A positive trend is also recorded in the volume of loans granted in foreign currency, increasing from 505,42 million in MDL in May 2020 to 1199,05 million MDL in August 2021 (when they reached the highest level), which is an increase of over 137%, given that the interest rate fell from 4,43% in May 2020 at 3,89% in August 2021. (see fig. 1).

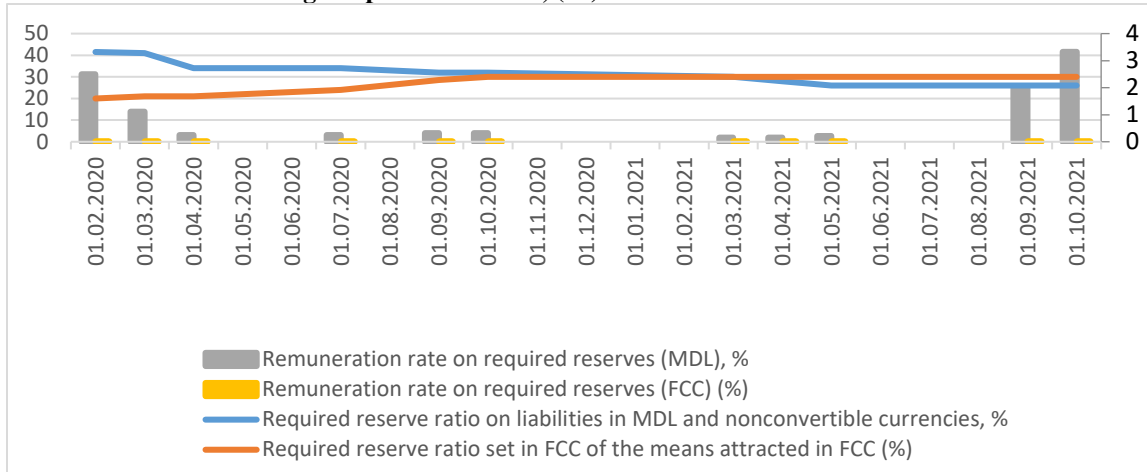
Fig. 1. Evolution of the value of new loans granted by licensed banks in the Republic of Moldova and the weighted average annual interest rate during the pandemic crisis.



Source: National Bank of Moldova, (2021). Statistical databank. Retrieved from <https://www.bnm.md/>

In order to increase the volume of financial resources of banks, the National Bank of Moldova gradually reduced the established norm of required reserves from funds attracted in MDL and nonconvertible currencies (%) from 41,5% in February 2020 at 26% starting with May of this year. The interest rate set for required reserves of funds drawn into MDL and non-convertible currencies held by banks at the NBM decreased from 2,5% in February 2020 to 0,15% starting in March 2021, and then increased to 1,98% in September 2021 and 3,33% in October this year. At the same time, the required reserve requirement for funds attracted in freely convertible currencies (FCC) has steadily increased from 20% in February 2020 to 30% since March 2021, in the conditions in which the interest rate established for the required reserves from the means attracted in convertible currencies maintained by banks at the NBM remained at the same level for the entire analyzed period – 0,01% (see fig. 2).

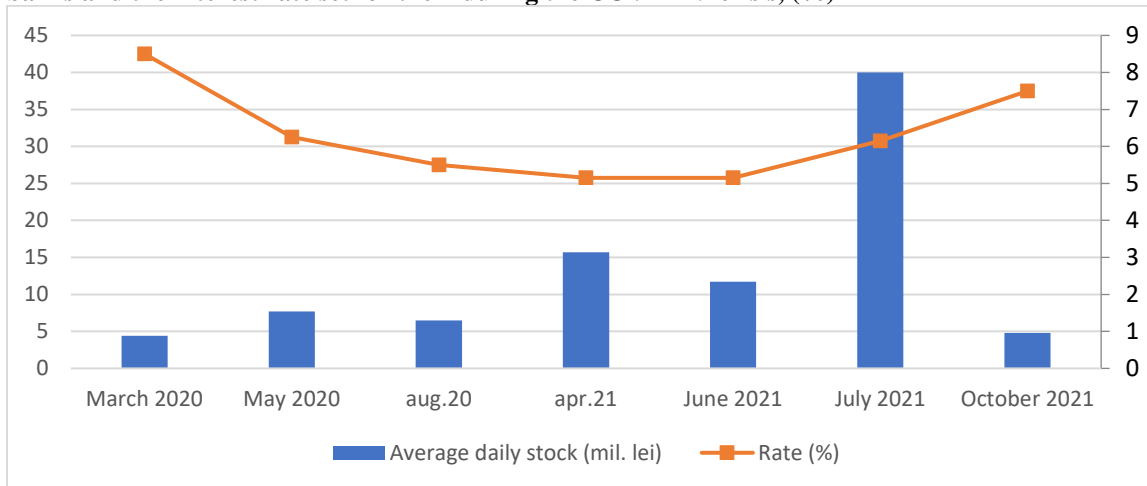
Fig. 2. Modification of the norm of required reserves from the means attracted in MDL, non-convertible currencies and freely convertible currencies, as well as of the remuneration rate of the reserves constituted during the pandemic crisis, (%)



Source: National Bank of Moldova, (2021). Statistical databank. Retrieved from <https://www.bnm.md/>

We must mention that even in the conditions of increasing the volume of bank loans, the need for banks in additional financial resources was insignificant and periodic, which proves that they have a high level of liquidity. Thus, the value of overnight loans granted by the NBM to licensed banks recorded the highest level in July 2021 - 40 million lei, in the other 6 months in which banks needed additional funds being much lower (see Fig. 3). The interest rate set by the NBM for overnight loans was 8,5% in March 2020, being reduced in April 2021 to 5,15%, after which it was set at 7.5% in October 2021 (NBM explains this increase as an instrument of influence on the inflationary process in the country).

Fig. 3. Evolution of the value of overnight loans granted by the National Bank of Moldova to licensed banks and the interest rate set for them during the COVID-19 crisis, (%)



Source: National Bank of Moldova, (2021). Statistical databank. Retrieved from <https://www.bnm.md/>

As for universal banks, banking is the same all over the world, the differences are given by the different needs of consumers of financial-banking services. Banks need to know not only the basic needs (food, clothes, utilities, salaries) but also the more complex and sophisticated needs (investment plans, health plans, pension plan, etc.) and to meet them with appropriate supply. In the current context of the COVID-19 pandemic and the evolving needs and preferences, including digital ones, it is necessary for banks to be prepared to respond quickly and efficiently to unforeseen changes in behavior. At the same time, in addition to the implementation of a trend setters regarding the products and services and a high degree of technologicalization, the concern for the customer, manifested by the bank, matters the most. In order to survive, banks need to focus on readjusting and re-evaluating strategies at the customer approach level, as well as realigning internal processes and resources. Under these conditions, they must collect and analyze granular data and information through a deep and in-depth (re) evaluation of the customer base (including customer research, segmentation, customer journey, etc.) in order to later develop integrated experiences that will help them adapt and thrive in the new reality.

Conclusions

The bank's customer orientation can be seen as a customer relationship management tool designed to generate long-term sustainable profits, which determines its ability to generate additional profit through deep understanding and efficient satisfaction of customer needs. Increasing customer loyalty to the bank requires strengthening the customer orientation of all divisions of the financial institution that would ensure the identification of customer needs and satisfaction as efficiently as possible. The use of advanced technologies allows banks to use information from customer data to know their real needs and properly market their products and services to fully satisfy them, giving them full satisfaction and a desire to return to the bank for more products and services. Data is becoming the focus of digitization, and many banks are accelerating the adoption of digital technologies, such as data analysis, artificial intelligence, robotic advisors and blockchain, to gain competitive advantage in the face of the pandemic crisis and as well as in the post-COVID-19 period.

Under these conditions, digitization must be an effective mechanism for banks to maintain and improve the "customer-centric" philosophy by using digital channels, which will ensure the use of data and information obtained in the direction of proactive customization, based on relevance and opportunity, at customer, the offer of products and services. Thus, the collection and accumulation of customer data and information will provide a huge opportunity to increase the quality of products and services by creating CRM (Customer Relationship Management) analytical capabilities for the conversion of "unstructured data" to "structured data". Although, lately, the level of digitalization and automation of banking has increased considerably, bankers talk about the need for its further growth, to ensure an uninterrupted digital flow from the first contact with the customer (entry on the bank's website, research the bank's offer) until the sale of the product without human intervention (except for decision moments). However, banks continue to offer predefined, rigid products and services, the characteristics of which (term, amount, interest rate, etc.) do not change according to the needs of different subcategories of

customers. The development of customized products and services will provide the customer with the desired comfort and satisfaction and the considerable increase of the banking business potential in a short time.

In order to achieve a customer-oriented activity, banks must directly address the following areas:

- redefining the bank's activity: placing the client and his needs at the center of all processes to ensure permanent solutions. Creating a customer-centric business model requires that banks understand and accept the uniqueness of each customer and create a real image of a partner in the bank-customer relationship by solving the needs of the customer and not the seller of financial products and services. At the declarative level, most banks support this strategy, in reality they are extremely far from achieving this goal. Objectively speaking, how many banks in the Republic of Moldova can claim and demonstrate that they know their customers extremely well and that they analyze potential transactions starting from the customer and not from the product?

- ensuring a mobile banking in order to satisfy the clients' requirements regarding the accessibility at any time to the banking products and services by using different devices, such as: smart phone, smart watch, mobile wallet, tablet, PC, etc.;

- developing a data analytics strategy designed to help customize the bank's financial products and services, which is to provide solutions tailored to the needs of each client;

- selecting the right technological platforms to ensure that the bank can integrate with its customers in an ecosystem for a mutually beneficial relationship.

Obviously, it is vital for banks to become players open to market realities, able to act proactively on changes in the socio-economic environment through innovation and the adoption of strategies and models that keep pace with customer expectations, demographic realities, opportunities offered by alternative sources, financing of customer activity, the new regulatory framework, the emergence of advanced technologies and new types of competitors, such as FinTechs (technology providers for the financial services industry).

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CONTROVERSIES REGARDING THE INTERPRETATION OF THE EXCHANGE RATE REGULATION IN THE MEAT PRODUCTION ACTIVITY

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Abstract: *In the context of contemporary food security concerns, commercial transactions involving live animals have increased significantly. This document critically analyzes the controversies regarding the accounting records of the exchange rate used at the date of receipt of biological assets such as stocks as a result of intra-community commercial acquisition operations. We consider that the legal document Letter of Consignment or the International Covenant on Transport Contracts (C.M.R.) on the basis of which the goods are received and the entry into administration is assigned to account 408 "Suppliers-incoming invoices", and the favorable / unfavorable exchange rate difference at the subsequent arrival of INVOICE is in return for account 408 "Suppliers- incoming invoices". Incorrect accounting registration of INVOICE only through account 401 "Suppliers" is contrary to the accounting regulations of Order no.1802/2014, because the goods were received by C.M.R. prior to the arrival of INVOICE, thus giving rise to the calculation of favorable / unfavorable exchange rate differences with fiscal and financial influences.*

Keywords: *Conforming accounting regulations, relevance, exact representation, legal form of the document, economic nature of the operation, professional reasoning*

This Article was presented as a paper at the 13th edition of the Annual International Conference Globalization and Higher Education in Economics and Business Administration (GEBA 2021), which was held at the Alexandru Ioan Cuza University, Faculty of Economics and Business Administration in Iasi, Romania from the 21st to 23rd of October 2021.

Introduction

From 1990 to 2020, the share of the breeding activity of pigs (swine) like other animal branches in Romania, registered a strong decline. Thus , the swine herds in 2003 (5145448 heads) represented 42,86% of the herds of 1990 (12003470 heads). The herds as the first May 2020 (3669342 heads) represented only 30,56 % of the swine herds of 1990. As a result, in order to cover its pork needs, Romania makes intra-Community acquisitions of biological assets of the nature of stocks. Romanian businessmen purchase intra-Community swine and carry out the production of pork through weight gain. The increase in weight gain is determined monthly, and at 90 days the capitalization of the swine is made, by sale.

Preliminary notions

C.M.R. is a document with special regime, of road freight transport, drawn up on the basis of a transport contract (concluded between the consignor/supplier and the carrier). It is used in the transport of goods between two countries. It shall be drawn up in three original copies. It is signed by the sender/supplier and carrier. The first copy shall be given to the consignor/supplier, the second copy shall accompany the goods and the third copy shall be returned to the carrier. When the goods to be transported have to be loaded into more than one vehicle, separate waybills shall be drawn up for each vehicle. All these transport letters will be entered in the INVOICE that will arrive later. The number, series and date C.M.R. can be found later inserted in invoice. "Avizul de însoțire a mărfii" is a document used on the territory of Romania, which accompanies the goods during transport. It is not used in the carriage of goods by road, between two countries. The " Notice accompanying the goods" cannot replace C.M.R. The notice accompanying the goods is a financial-accounting document on the basis of which accounting entries can be made, without the fact that it is mandatory to draw up the invoice. At the same time, this financial accounting document is the basis for the transfer of material values, from one management to another territorially dispersed, in Romania, belonging to the same economic entity, in which case it will be entered "without invoice". The mention "For processing to third parties" where there are material values sent for processing to third part. In other situations, other than those presented above, the cause for which the Notice accompanying the goods was drawn up will be maintained and not the invoice.

Invoice is a supporting document on the basis of which economic transactions are recorded in the accounts. At the same time, it is also a document that includes tax information, such as: the taxable base, the nature of the goods supplies or supplies of goods, the possible VAT rates, mentions regarding the transactions. For the purposes of Directive 112_2006 as amended and supplemented, the concept of invoice states that documents and messages shall be accepted between Member States in paper or electronic form as invoices meeting the conditions. The invoice has the following details, important from a fiscal point of view, for VAT purposes: the date of issue; a sequential number based on series, the VAT identification number on the basis of which the taxable person has delivered/ supplied the services; the VAT identification number of the customer on the basis of whom the customer has benefited from a supply of goods or services for which he is liable to pay VAT or has benefited from supply of goods; the full name and address of the taxable person and the customer; the quantity and nature of the goods delivered or the volume and nature of the services provided; the date on which the supplies of goods or services were effected or concluded, possibly the date on which the advance was paid; the taxable base for each quota (for biological assets of the nature of stocks-piglets, the VAT rate in Romania according to the Fiscal Code is 9%); the VAT rate applied; the amount of VAT to be paid, unless a special scheme applies for which Directive 112_2006 excludes the mention. From a fiscal point of view, the content of the EU Directive includes simplification measures, declarations, recapitulative statements, special regimes, derogations. We can talk about a classification of invoices:

- electronic invoice is the document or message that has been issued and received in any electronic format, issued by a taxable person,

- simplified invoice is a document or message that has been issued and received, in paper or electronic form, less than 100 Eur or the equivalent in national currency.

Case study

The accounting regulations on the individual annual financial statements and consolidated financial statements (Order of the Minister of Finance no.1802 of 29 December 2014, as subsequently amended and supplemented), which originate in Directive 2013/34 EU of the European Parliament and of the Council also include the development of the detailed general chart of accounts in the classes of accounts, groups of accounts and synthetic accounts of the first degree and synthetic accounts of the second degree. In the form of presentation of the balance sheet, the horizontal form, in letter B. Current assets we have at figure I Stocks with the items carried out, as follows:

B. Current assets

I. Stocks

1. Raw materials and consumables
2. Production in progress
3. Finished products and goods
4. Advances" (Section 4.2 of Order no.1802/2014).

A Romanian entrepreneur has concluded a contract for the purchase of piglets (swine) with a supplier in the Netherlands. The commercial transactions are carried out between two partners from two different countries, territorially distanced, EU member states. The purchase contract is carried out for a period longer than 6 months. The road transport contract is carried out with specially equipped machines for the transport of live swine and is a contract concluded between the supplier and the transport company. The invoice is issued after a few days, after the carrier arrives at the supplier. The Romanian economic entity makes the purchase of swine from an EU member state, the purchase price being established by the purchase contract, in Euro currency. The transport is carried out by special means of transport for the transport of swine, based on the C.M.R., and the duration of the transport is in days. Before carrying out the transport, the supplier sends a Pro-Invoice to the Romanian economic entity. The cost of transportation is the responsibility of the supplier of swine.

In the following, we will analyze the accounting records generated by the activity of intra-Community acquisition of swine for the purpose of meat production, carried out by the economic entity with Romanian private capital. The Romanian entity focuses on obtaining and recording the accounting of the "weight gain", as a production process in animal husbandry.

In this article, the following accounting accounts will be used:

- Account 361 " Biological assets in the nature of stocks ", an element with a patrimonial asset substance,
- account 408 " "Suppliers - incoming invoices", element with patrimonial passive substance,
- Account 711 'Revenue for the cost of stocks of products', a liability substance item,
- Account 606'Expenditure on biological assets of a stock nature', an item with an active substance,
- contul 401'Suppliers', item with a patrimonial passive substance,

→Account 665' Expenses from exchange rate differences expressed in foreign currency', asset substance item, first degree synthetic account,

→account 7651" Favourable exchange rate differences related to monetary items denominated in foreign currency", item with liability substance, synthetic account of the second degree,

The accounting method used in the accounting management of "Biological assets of the nature of stocks" is the method of permanent inventory, recording all entry and exit operations both in quantity and value, at any time being known the stocks and their value. In Section 4.6, "Third parties" of the Order of the Minister of Public Finances no. No 1802/2014 in paragraph 314(4) I have the following description, I quote:

'4. In the case of goods acquired accompanied by the invoice or the notice accompanying the goods, and the invoice will arrive subsequently, the exchange rate used for entry in the accounts shall be the rate at the time of receipt of the goods.'

The case of the intra-Community acquisition of swine described above does not, primacy, fall within the scope of point 314(4) of that order. It is a legislative loophole that generates errors of interpretation and accounting registration, including in accounting software and, through tax fines. In the author's opinion, the accounting records generated by the intra-Community acquisition of biological assets of the nature of stocks - swine, must be recorded as follows:

1. On June 2, 2021, the transport of piglets (1244 heads* 86,4926 Eur/cap= 107,596,82 Eur;1244 heads * 25kg= 30600 kg) is received, based on C.M.R., the exchange rate being 4.9197 lei/ 1eur:

361.01 = 408 "Suppliers - incoming invoices"
529,344.08 lei

"Biological assets of a stock nature"
analytically young swine

The Entry Note Reception of swine is made on the basis of C.M.R. which is a document of transport and accompanying of the intra-Community goods. The C.M.R. is the basis for the preparation of the INVOICE, subsequently.

2. On 07.06.2021, the arrival of INVOICE from the swine supplier is recorded, the invoice value of 107,596.82 Eur, the exchange rate being 4.9230 lei / 1eur. At the same time, we also record the reverse charge with the simplified rate of 9% (art. 291 paragraph (2) letter e) of the Fiscal Code. We have the following records in accounting:

408 "Suppliers - incoming invoices" = 401 "Suppliers"
529,699.14 lei

4426"VAT deductible" = 4427 "VAT collected" 47,672.92
lei

3. It was calculated an unfavorable exchange rate difference of 355.06 lei recorded by debit of the account 665 "Expenses from exchange rate differences expressed in foreign currency", "and crediting the account 408 "Suppliers - uneasy invoices":

665 = 408 "Suppliers - incoming invoices"
355.06 lei

"Expenses from exchange rate differences expressed in foreign currency "

4. The transport of piglets is received (1479 heads * 86.4926 Eur / head = 127.922,55 eurEur; 1479 heads * 25kg = 36975 kg) on June 8, 2021, based on CMR, the exchange rate is 4.9229 lei / 1 eur:

361.01	=	408 "Suppliers - incoming invoices"
629,749.92 lei		
"Inventory biological assets" analytical pig youth		

5. The arrival of INVOICE from the pig supplier is registered, on 14.06.2021, the value of INVOICE 127,922.55Eur, the exchange rate is 4.9188 lei / 1 eur. At the same time, we also register the reverse charge with the simplified quota of 9% (art. 291 paragraph (2) letter e) of the Fiscal Code. We have the following records in accounting:

408 "Suppliers - incoming invoices"	=	401 "Suppliers"
629,225.43 lei		
4426 "T.V.A. deductible"	=	4427" T.V.A. collected "
56,630.28 lei		

6. Calculate a favorable exchange rate difference of 524.49 lei registered through the debit of account 408 "Suppliers - unpaid invoices" and crediting of account 7651 "Favorable exchange rate differences related to monetary items expressed in foreign currency":

408 "Suppliers - incoming invoices"	=	7651 "Favorable exchange rate differences
524.49 lei		
		related to monetary items denominated in foreign currency "

In the literature and in common practice, the acquisition of biological assets in the nature of stocks was treated as follows:

1. Acquisition of biological assets

% =	404 "Suppliers of fixed assets"	29,430 lei
	217	27,000 lei
"Biological assets productive"		
	4426	2,430 lei
"Deductible VAT"		

2. In a specialized correspondence with the person in charge of maintaining the WinMentor accounting program, in the answer regarding the registration of the favorable / unfavorable exchange rate difference at the time of INVOICE arrival, after the C.M.R.

408	=	404	5,862.18 lei
4426	=	4428	935.98 lei
4426	=	404	0.15 lei
665	=	404	0.80 lei

3. It is a habit to register in the accounting when the INVOICE arrives and not at the time of the arrival of the pigs with the C.M.R.ul.This is because the users of Winmentor accounting programs do not use the closure of the account 408"Suppliers- unpersonable

invoices" through the accounts of favorable / unfavorable differences, but in correspondence with the account 401 "Suppliers".

The road freight transport document/ the C.M.R. consignment note, on paper, has a negative impact on the environment. In the near future, the use of the e-CMR electronic consignment note will be generalized.

Conclusions

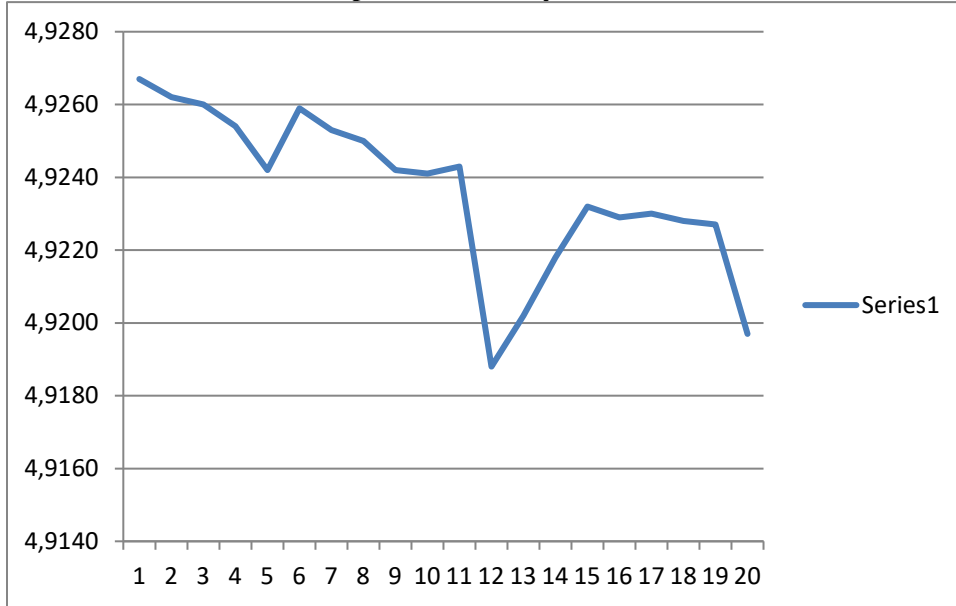
In the current contemporary conditions, 2021, Romania has lost its industrialized pork production. In 2020, May 1st, Romania's swine production is 30.56% of the swine herds of 1990. This information is statistical data. Romania achieves the production of swine through the intra-Community acquisition of piglets, on which it then achieves the "weight gain increase". Entries in the accounts regarding the acquisition of biological assets of the nature of live animal stocks intended for meat production, are made on the basis of C.M.R. (from an accounting point of view, the performance of the economic and financial operation is proved by any document in which it is recorded) by crediting the account 408"Suppliers-invoices unseated" and debiting the account 361.01 "Biological assets of the nature of stocks" analytically young swine. Upon arrival (invoice) the account 408"Suppliers-invoices unseated" is debited by crediting the account 401 "Suppliers". the account 408"Suppliers- unseated invoices" is debited by crediting the account 401 "Suppliers". Since the transaction is made in the currency of the supplier's country, from the Netherlands, we have euro. The result is the registration in the account of favorable exchange rate differences (account 765)/ unfavorable (account 665) in correspondence with the account 408" Suppliers- invoices unseated". The transaction in euro shall be initially registered at the exchange rate, communicated by the National Bank of Romania, from the date of receipt of biological assets of the nature of stocks (entry into management). Accounting is a science, it is the coded language of the accounts with which we create the life of the economic entity, through the filter of our own professional reasoning. Looking at it from another angle, accounting describes the life of the entity through its own interpretation of the matrix of professional reasoning.

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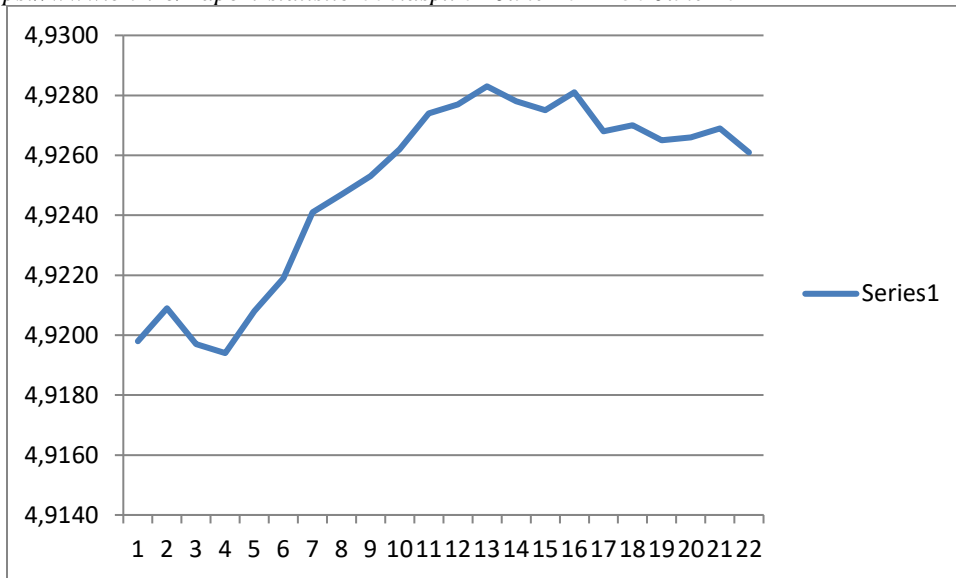
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ANNEX - THE EVOLUTION OF THE LEU-EURO EXCHANGE RATE DURING THE ANALYZED PERIOD

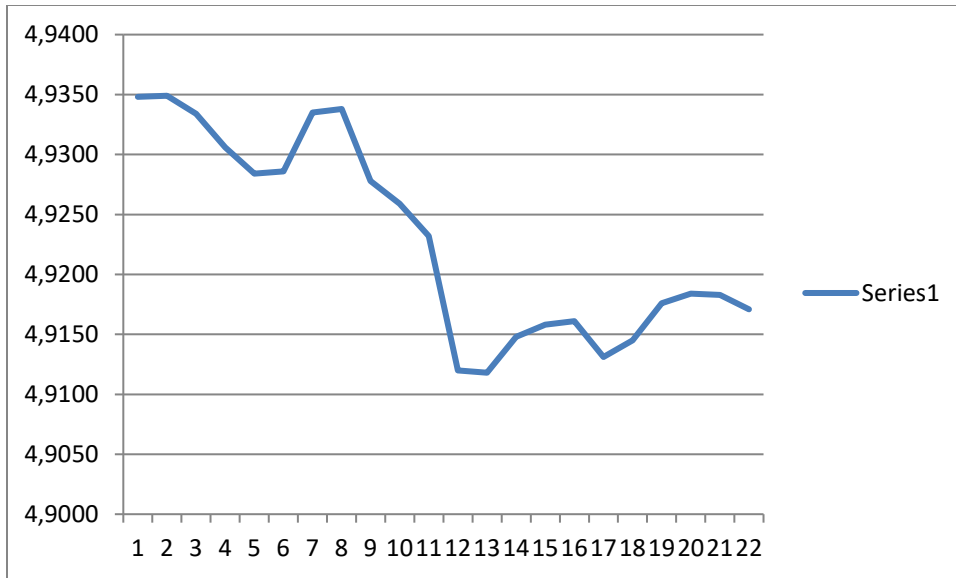
The evolution of the exchange rate, the exchange ratio between the Leu and the Euro in the period 01 June 2021 to 30 September 2021. The daily dynamics, rendered in graphical form, monthly, of the comparative currency evolution



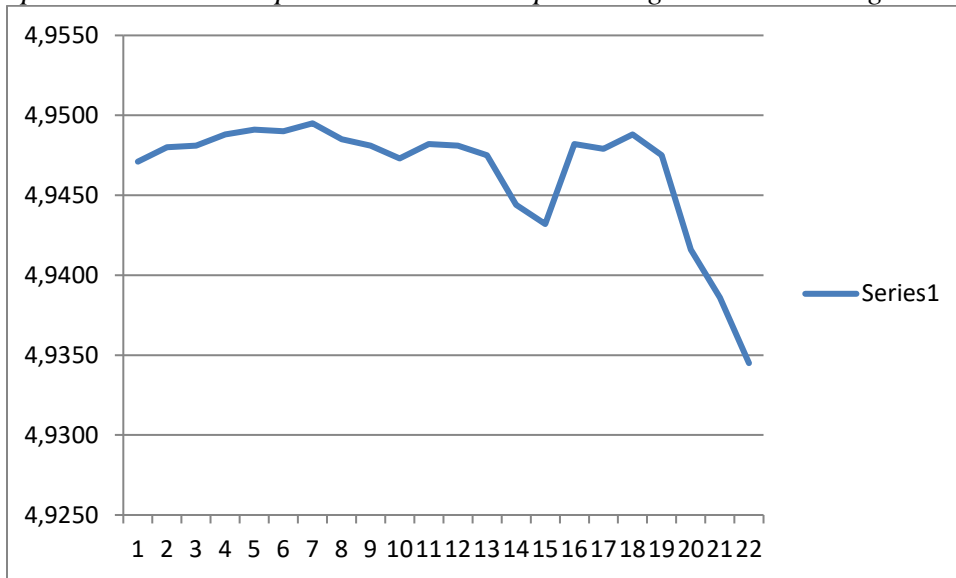
sursa <https://www.bnr.ro/Raport-statistic-606.aspx> 02 June 2021- 30 June 2021



sursa <https://www.bnr.ro/Raport-statistic-606.aspx> 01 July 2021 until 30 July 2021



sursa <https://www.bnr.ro/Raport-statistic-606.aspx> 02 August 2021- 31 August 2021



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PREVENTIVE RESTRUCTURING, FINANCIAL DISTRESS AND VIABILITY OF THE COMPANIES

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Abstract: *The need to restructure businesses has become a constant reality in the international economic landscape and hence the constant concern of the European legislature to harmonize the relevant legislation in the Member States. In order to harmonize the legislation, it is necessary to establish the common benchmark that will underpin the legislation of the EU countries. Defining the methods of restructuring, defining the financial difficulty and the ways of assessing the viability of companies are starting points in this approach.*

Keywords: *preventive restructuring, financial distress, viability*

This Article was presented as a paper at the 13th edition of the Annual International Conference Globalization and Higher Education in Economics and Business Administration (GEBA 2021), which was held at the Alexandru Ioan Cuza University, Faculty of Economics and Business Administration in Iasi, Romania from the 21st to 23rd of October 2021.

Introduction

For the purposes of the Directive on Preventive Restructuring and Insolvency (DPRI) - restructuring is defined as "means measures aimed at restructuring the debtor's business that include changing the composition, conditions or structure of a debtor's assets and liabilities or any other part of the debtor's capital structure, such as sales of assets or parts of the business and, where so provided under national law, the sale of the business as a going concern, as well as any necessary operational changes, or a combination of those elements". Restructuring is a formal procedure that aims to rehabilitate a company with financial or economic problems through financial measures accompanied by operational changes (Danovi et al., 2008). Operational reorganization involves the sale of goods or the

whole business "as a going concern" (Eidenmuller, 2017), as it may include the sale of non-productive machinery accompanied by changes in the labor force. Financial restructuring involves addressing debt by postponing the payments, canceling debt, obtaining new financing and swapping debt into equity – changing the structure of the company's capital (McCarthy, 2019). Both the reorganization and the restructuring aim to rehabilitate the company so that it can continue its activity while saving jobs. The second Recital of DPRI emphasize the importance of saving business "Restructuring should enable debtors in financial difficulties to continue business, in whole or in part, by changing the composition, conditions or structure of their assets and their liabilities or any other part of their capital structure — including by sales of assets or parts of the business or, where so provided under national law, the business as a whole — as well as by carrying out operational changes. Unless otherwise specifically provided for by national law, operational changes, such as the termination or amendment of contracts or the sale or other disposal of assets, should comply with the general requirements that are provided for under national law for such measures, in particular civil law and labor law rules. Any debt-to-equity swaps should also comply with safeguards provided for by national law. Preventive restructuring frameworks should, above all, enable debtors to restructure effectively at an early stage and to avoid insolvency, thus limiting the unnecessary liquidation of viable enterprises. Those frameworks should help to prevent job losses and the loss of know-how and skills and maximize the total value to creditors — in comparison to what they would receive in the event of the liquidation of the enterprise's assets or in the event of the next-best-alternative scenario in the absence of a plan — as well as to owners and the economy as a whole".

According to the art. 1(1)(a) of the Directive (EU) 2019/1023 of the European Parliament and of the Council "preventive restructuring frameworks available for debtors in financial difficulties when there is a likelihood of insolvency, with a view to preventing the insolvency and ensuring the viability of the debtor." It can be stated that both, the restructuring procedure and the reorganization procedure, pursue essentially identical purposes using essentially identical measures. The fundamental difference between them is represented by the circumstances in which each of these procedures is used: the restructuring procedure assumes that the debtor is not insolvent but is in a difficult situation and therefore has greater chances of rehabilitation, while the reorganization means the fact that the debtor is already insolvent. Reorganization is an entirely formal and collective procedure, while the restructuring of the company can be carried out entirely out of court or with minimal legal input and without the participation of all creditors, although there are authors who believe that restructuring should also be collective.

As a novelty, the Directive encourages preventive restructuring with little or no involvement of administrative or judicial authorities, favoring contractual / enhanced or hybrid arrangements / agreements. Last but not least, the Directive (Garrido, 2012) is intended to be a benchmark for the harmonization of legislation on preventive restructuring in the European Union. Purely contractual restructurings, enhanced and hybrid restructuring procedures are, in many cases, an effective alternative to purely formal insolvency proceedings. Regarding the rehabilitation of companies in difficulty but viable, the Directive refers to enhanced and hybrid restructurings, procedures that can be regulated and are not entirely extrajudicial or judicial, and the failure of the restructuring does not

remove the possibility for the debtor to try a reorganization. (formal) before being forced to declare insolvency.

There is a lot of confusion in understanding the concepts of restructuring and reorganization. In fact, many legislative systems lack a clear demarcation between these procedures: starting from purely contractual agreements, going through extrajudicial restructuring - but with formal components, following the (purely) formal reorganization and ending with insolvency. (Fig.1).

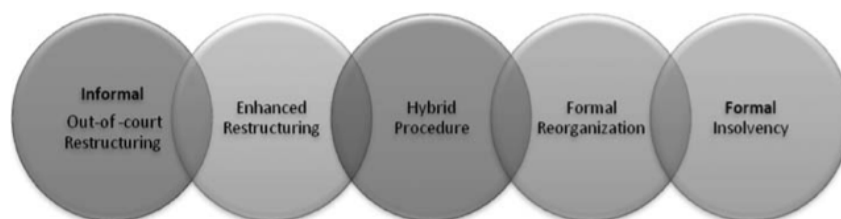


Fig.nr.1 - Rehabilitation procedures of companies (Source: World Bank)

Definition of financial distress

”Financial distress is an emerging field steeped in confusion and complexity. Some of the confusion can be resolved by understanding the diverse nature of financial distress; it is not synonymous with corporate death. Firms in distress face a variety of situations having very different effects on their values and claimholders” (Wruck, 1990)

One of the first definitions of financial distress issued by Fitzpatrick in 1932 assumes that financial distress can be considered when the company can not pay its debt at maturity. (Michalkova, 2018) There were since many attempts to define the financial difficulty; majority of them based on different symptoms: negative cash flow (Whitaker, 1999), unsecured bond (Beaver, 1966) value of debt less than value of the assets (Purnanandam, 2005) etc.

”A debtor is only in financial difficulty when he is either cash-flow or insolvent balance sheet but the company is viable. In such circumstances, the business has a higher value if it continues to operate than if it is sold in pieces or liquidated. Instead, a debtor is considered to be bankrupt when his business is not viable - that is, his assets would be worth more if they were sold in pieces than if the business continued to operate (Mokal, 2005; Sarra, 2003).

Article 6 (2) of the Romanian law project for the transposition of the Directive accumulates some of these symptoms and states that a debtor is in financial difficulty in the following situations:

- a) the turnover decreased by at least 20% in the last six months compared to the same period of the previous year and recorded a negative operating result;
- b) the net current asset is negative;
- c) any occurred circumstance that may reasonably lead, in the next six months, to one of the results provided in let. a) or b).

The need to develop criteria to establish the viability of enterprises

Assessment of the viability of a company is a difficult task and the results will always be hypothetical. However, it is important that before opening a restructuring procedure to assess with the help of an experienced expert whether the company is viable or non-viable. For example, if the company produces a good that is no longer demanded on the market then the company has no chance of recovery if it is based on the same business idea. The problem is that not all cases are so simple, and the wrong choices have significant costs (Franks, 2005). Establishing the viability of a company can be a long and expensive process, for this reason it would be helpful to be provided only one test, well specified, for all companies in difficulty which asking to enter the restructuring procedures. The test must filter viable firms, and non-viable firms must undergo the liquidation procedure. It should be borne in mind that, as shown by statistical studies, 17 most companies in difficulty end up becoming insolvent and going into liquidation. For example, the liquidation rate in the second quarter of 2020 in France was about 74.62%, in the United Kingdom in the same period was 88%, in Spain in 2015 about 90%, and in Germany 84%, although all these countries have legislation that contains well-codified restructuring procedures (NIS).

In the Directive, Article 4 on the "Availability of preventive restructuring frameworks" there are mentioned three limitations: the debtor has been sanctioned for various accounting irregularities and is not allowed to access the preventive restructuring frameworks, the debtor does not pass the viability test, the debtor has also accessed that procedure and does not fall within the period in which he can access it again. The conclusion is that the restructuring procedures must be applied very carefully, after a strict assessment of the viability of the company in difficulty, according to well-established criteria and simple to apply, which does not require additional time and costs, otherwise there is a risk of occurrence two undesirable situations: either a viable company is subject to liquidation procedures, or a non-viable company is subject to restructuring - in both situations the losses will be significant and diverse (money, know-how, etc.). The role of restructuring procedures is practically to separate viable companies, which need to be restructured, including by selling "as a going concern", from non-viable companies that will have to be liquidated as efficiently as possible (Eidenmuller, 2017).

Differentiating viable from non-viable enterprises is essential in trying to rehabilitate companies in difficulty. In order to benefit from the restructuring procedures, the company must be viable and more valuable if it continues its activity "as a going concern" than if it is sold in pieces in the liquidation procedure, and then it is considered that the company must be liquidated. This separation should be done individually for each company, which would involve a lot of time and very high costs. The role of the authorities is mainly to ensure an optimal legislative framework so as to encourage both debtors and especially creditors to choose to participate in the rehabilitation process of companies. The assessment of the viability of companies must be done primarily by creditors who have the necessary expertise to estimate whether a company is viable or not. Creditors have an important role in rehabilitating companies: by not resorting to forced executions of the debtor in difficulty or the liquidation procedure and by participating in negotiations with the desire to find the best solutions to help the company. Debtors must pay attention to early warning signs and initiate early restructuring procedures, prepared a well-structured

restructuring plan, taking into account the most appropriate measures to save the company (capital increase, debt rescheduling, etc.).

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AN OVERVIEW OF THE INTERGENERATIONAL FINANCIAL TRANSFERS IN ROMANIA

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Abstract: *Intergenerational transfers are one of the most important and contentious aspects of modern welfare systems. In today's societies, financial transfers between adult generations in the family are an important part of the intergenerational link. They are important not only for the family as a whole – how it distributes its resources and ensures its members' well-being – but also for broader aspects such as welfare policy, social inequality, and social integration. The financial transfers are playing an important role in accumulation and distribution of the wealth. In consequence these financial transfers are important not only for the individuals, but also for the social aspects of the wealth redistribution. Using the dataset provided by Survey of Health, Ageing and Retirement in Europe (SHARE), we want to create the profile of the persons over 50 from Romania that give and receive financial aid.*

Keywords: *Intergenerational transfers, financial transfers, private transfers, SHARE.*

This Article was presented as a paper at the 13th edition of the Annual International Conference Globalization and Higher Education in Economics and Business Administration (GEBA 2021), which was held at the Alexandru Ioan Cuza University, Faculty of Economics and Business Administration in Iasi, Romania from the 21st to 23rd of October 2021.

Introduction

During the periods when changes in the structure of the family, in the attitude towards the family and in the values about familism exist, there is a growing interest in intergenerational solidarity. This interest is even stronger in the wake of structural problems, such as rising unemployment, rising costs and services, and an aging population. During these periods there is a tendency for the state to transfer the social responsibilities to the private sector, most often represented by the family (Bawin-Legros and Stassen, 2002). Financial transfers and assistance with daily activities by family and friends are important sources of support that contribute to the well-being of the elderly. The transfer of resources to the elderly is critical for both the family and society, with economic resources possibly being the most important (Leeson and Khan, 2013; Arber, 2013). Europe is an aging continent, and the need for long-term care will almost certainly increase in the coming decades. Children have always been an important source of care for parents in their old age. Furthermore, as the population ages, there is a growing concern for the elderly's well-being. If transfers between children and parents are significant, one might believe they should be considered when assessing population welfare. Most studies on intergenerational financial support focus on the reasons for thus exchanges. Given the lack of literature on intergenerational transfers made and given by Romanian older adults, in this paper we aim to provide an overview of financial transfers given and received by people over 50. We explore who gives and who receives financial support, as well as the profile of donors and recipients.

The paper is structured as follows: Section 1 summarizes the relevant literature, including both theoretical and empirical studies; Section 2 describes the methodology used in our study; Section 3 discusses the empirical findings and Section 4 will contain the conclusions of the study.

Literature review

Financial transfers are important not only for individuals, but also for social policies involving wealth redistribution. The direction in which they flow - upwards to the elderly population or downwards to younger families with children - has been reshaped by the establishment of welfare systems: older people who were previously economically supported by their children have since become providers of financial support to their offspring (Attias-Donfut, 1995; Kohli, 1999). Moreover, the literature presents that repayment of perceived debts and altruistic kinship commitments have been proposed as two key normative incentives for adult children to provide late-life financial support to parents (Cao, 2006; Hayhoe and Stevenson, 2007; Koh and MacDonald, 2006). Reciprocity norms are societal beliefs about adult children's obligations to repay their parents for earlier sacrifices made on their behalf (Silverstein et al., 2002). Financial assistance is intended to be provided as parents age in exchange for the services and financial support provided to their children as children and even into adulthood.

The motivations for intergenerational transfers can differ depending on the type of intergenerational transfer. Economic research on the motivation for intergenerational transfers has frequently relied on two models: altruistic and exchange models. That is, intergenerational transfers, particularly monetary assistance between generations, are the

result of altruistic preference for family members (Becker, 1974; 1991) or mutual perceived advantage in transacting or engaging in joint production by family members (Becker, 1974). They reflect social ties between generations while also influencing those relationships. Adult children who receive financial assistance from older generations benefit economically, but their parents benefit as well because these gifts strengthen their children's affectionate bonds with them (Aquilino, 1991). This may be important later in life because feelings of closeness and solidarity have been linked to important outcomes for aging individuals, including aspects of mental and physical health. Also, the literature largely acknowledges the altruism towards family members in homeland as the main reason for remitting. Migration and remittances, without a doubt, relieve the sending countries of underemployment and create new opportunities, as well as help alleviate poverty and improve life in poor countries (Adams and Page, 2005; Spatafora, 2005; Gupta and al., 2009). Remittances have the strongest economic impact on sending countries, as the money sent home by migrant workers plays an important role for both receiving households and the economy (Gubert, 2002; Ratha, 2004; Gammage, 2006; Skeldon, 2007).

Prior research also focused on different types of transfers separately. According to Attias-Donfut et al. (2005), the likelihood of making family intergenerational financial transfers decreases with age, whereas the likelihood of receiving practical support significantly increases, particularly after the age of 75. Regardless of age, Albertini et al. (2007) discovered that parents are more likely to give financial support to their children than to receive it from them. Parents aged 70 and older, on the other hand, were more likely to receive than to provide practical support, excluding grandchild care. Researchers also investigated the geographical distribution of family transfers. They discovered that financial family transfers are the least common and most intensive in Southern Europe, while they are the most common and least intensive in Northern Europe (e.g., Albertini and Kohli, 2012; Kohli and Albertini, 2007). A similar geographic pattern was discovered for the exchange of non-monetary family help and care (Brandt and Deindl, 2013; Brandt et al., 2009; Deindl and Brandt, 2011; Haberkern and Szydlik 2010; Igel and Szydlik, 2011). The reasons for generational solidarity vary, but the literature emphasizes altruism among family members, particularly among parents toward their children (Becker, 1991), as well as expectations of reciprocity between generations (Coleman, 1990), affection, and need (Fingerman et al., 2009; Fingerman et al., 2011).

Data and methodology

In this paper we use the dataset provided by Survey of Health, Ageing and Retirement in Europe (SHARE), which is the largest pan-European social science panel study that provides insights into the public health and socio-economic conditions of European citizens aged 50+. We use data from the Wave 8 of SHARE that was applied in 2020 and comprises 28 European countries (plus Israel). The sample of analysis proposed is composed of those respondents who provided or received a financial transfer and who are from Romania. Financial transfers were measured over a period of 12 months prior to the interview. According to the SHARE definition, financial transfers include received or provided financial or material gifts valued at least €250 (or local equivalents in local currency). Respondents were asked: "Now please think about the last twelve months. Not

counting any shared housing or shared food, have you or your husband/ wife/ partner given any financial or material gift or support to any person inside or outside this household amounting to 250 euros or more?”. In this context, the term "financial or material gift" is meant to describe "giving money" or to provide specific types of benefits such as health care, insurance, schooling, and home purchase down payment. Loans were not considered as being gifts. For financial transfers received, the same format was used. In the case of positive replies, respondents are put into a question loop that allows them to give details on up to three transfers. They were also asked to whom they gave or from who they received most frequently financial transfer during the past 12 months.

This paper aims to improve our knowledge and, at the same time, to give us a picture of the financial transfers granted and received by people over 50 in Romania. We explore who gives and who receives financial aid, as well as the profile of donors and recipients. The analysis proceeds in several stages. First, we will offer a picture of the financial transfers for each country to see where Romania stands in the European context. Next, we find out who is sending and receiving financial transfers in Romania. Subsequently we will test if there are differences between the income of those who provide a financial transfer and those who receive. Finally, using multiple correspondence analysis we will identify the profile of donors and receivers from the perspective of the main socio-economic and demographic characteristics. Multiple correspondence analysis (MCA) is one of the methods used to analyze multivariate data that analyses cross-frequency tables (contingency tables) to explore the simultaneous relationships among variables (Benzécri, 1979, Burr & Phillips, 1984). This exploratory technique uses maps to determine structures subjacent to the variable set. After obtaining this, it is possible to visually observe the distance between the categories of the qualitative variables and between the observations. Multiple correspondence analysis was chosen because it allows analyzing all outcomes simultaneously, characterizing the profiles of respondents who gave or received a financial transfer.

Results

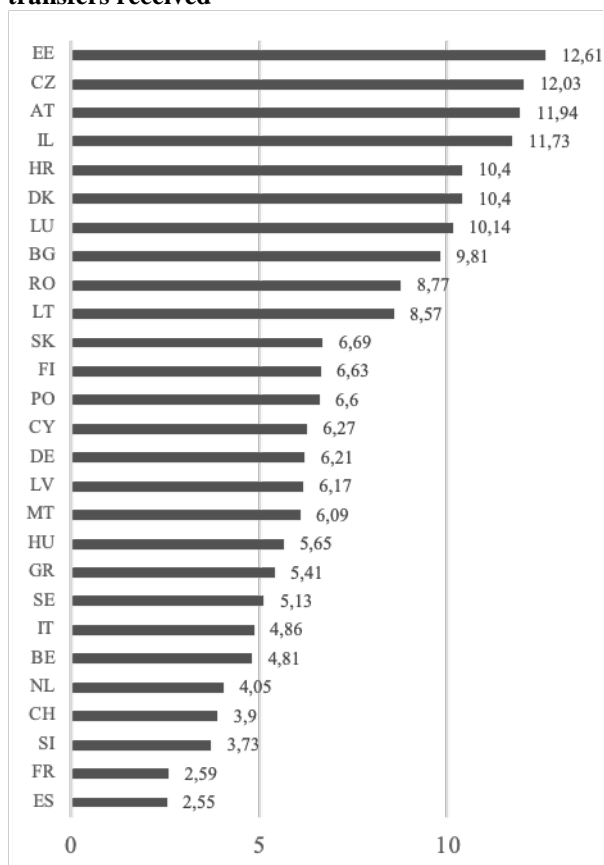
Table 1 shows the pattern of financial transfers in the European countries. One of our interests is to see Romania's place in the European context. Concerning financial transfers made, only 16.04% of Romanian respondents reported having given 250 euros or more within the last 12 months to their family or other members of their social network. Romania ranks in the bottom 5 with Slovakia, Spain, Bulgaria, Latvia. As far as receiving financial transfers is concerned, overall rates are slightly lower than for giving transfers, Romania being in the top 10 countries, with an 8.77 percent. We observe that, in Romania and in other European countries, there is a tendency that older people are more likely to offer than receive financial transfers. Even though these transfers appear small at first sight, we must say that the threshold of 250 euros excluded multiple transfers of smaller amounts while capturing simultaneously the larger transfers.

The identities of the donors and beneficiaries of the transfers are shown in Figure 3. As we mentioned above, if the respondents gave a positive reply, they were put into a question loop that allows them to give details of up to three transfers. As far as the beneficiaries of financial transfers are concerned, in all three times when a transfer was offered, two main patterns can be discerned. Firstly, the recipients of these transfers are

almost exclusively family members, and secondly, the path of financial transfers is overwhelmingly towards children. For all three transfers granted, children account for more than 60%, followed by transfers to grandchildren for which 23.88% for the first transfer, 14.77% for the second and 4.17% for the third.

Figure 1. Distribution of countries by financial transfers granted

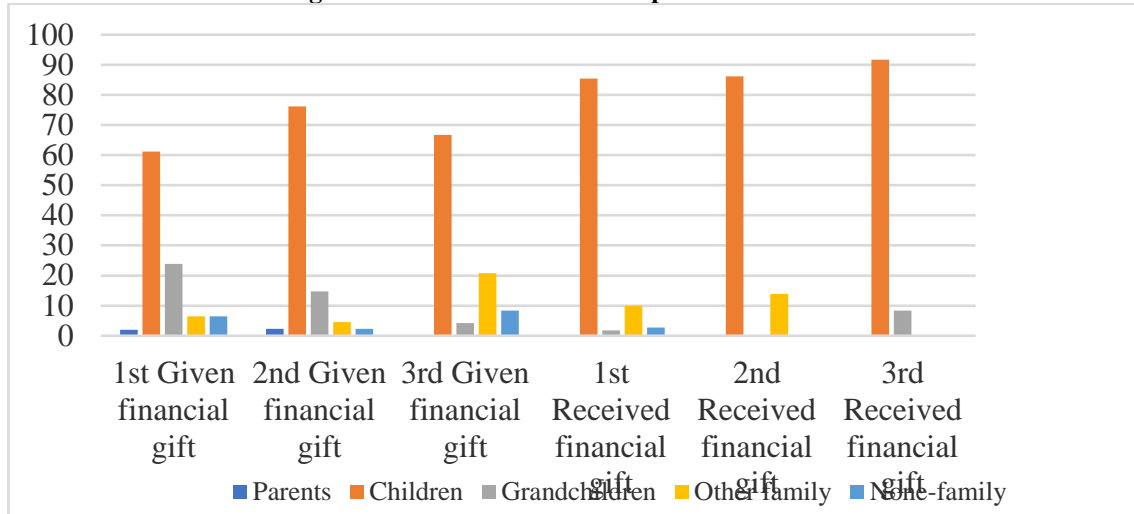
Figure 2. Distribution of countries by financial transfers received



Source: SHARE 2020 (Release 1). Own calculations, weighted

Figure 3 presents the network of donors, those people from whom the respondent has received financial transfers. As for donors, children have the highest percentages, i.e., over 80% in all three cases of transfers received. It can also be noted that other family members form a small but important part of the network of transfers for the first and second received financial gift, while for the third transfer received, it is the non-family members who form an important part of the network.

Figure 3: Financial transfer recipients and donors



*Source: SHARE 2020 (Release 1). Own calculations, weighted.

Our results show that the process of financial transfers is concentrated especially in the family line, that cash gifts mainly flow to the younger generations. Having a downward flow, resource transfers from parents to children are much more frequent than those from children to parents. The results suggest that this type of support from the family is important in determining the accumulation of capital for younger generations (Ermisch, 2003; Altonji et al., 2012), acting as an insurance against income shocks while creating cohesion and solidarity among family members (Altonji et al., 1997, Chen et al., 2016).

Considering financial transfers, the economic circumstances of the recipient and giver are important. According to the literature, the better off a family is, the more likely they are to provide financial assistance and the greater the amount of aid will be with each transfer (Henretta et al., 2002; Albertini et al., 2007; Leopold & Raab, 2011; Brandt & Deindl, 2013). The study by Albuquerque (2014) observes that children may receive a financial transfer if their parents' financial situation is good, but that financial circumstances are not a predictor of child to parent transfers. Therefore, we want to investigate whether there are significant differences of income between the two categories of respondents, i.e. recipients and donors. Using the the simple Student test, we determine whether the mean income for donors is significantly different from the mean income for recipients. The results can be seen in Table 1.

Table 1. Independent samples Student test results

Variable	Mean	Standard Error	Standard Deviation	95% Conf. Int.		No. of observations
Income of the donors	728.7118	50.4322	714.9999	629.2647	828.1589	201
Income of the receivers	577.6522	65.48198	686.7808	447.869	707.4353	110
Combined	675.2824	40.13242	707.743	596.316	754.2488	311
Diff = mean (Income of the donors) - mean (income of the receivers)	H ₀ : diff=0	t=1.8062		-13.50439	315.6237	Degrees of freedom = 309

H _a : diff < 0	H _a : diff ≠ 0	H _a : diff > 0
Pr (T < t)=0.9641	Pr (T < t)=0.0719	Pr (T < t)=0.0359
*Source: Authors' calculations		

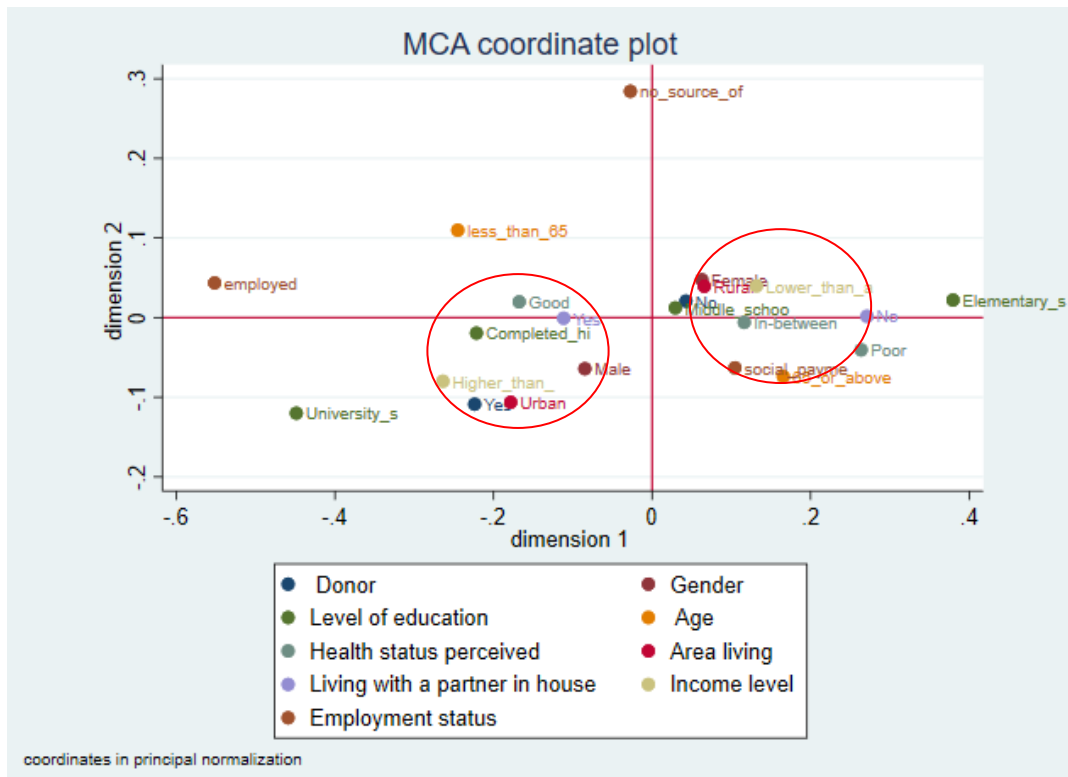
As we can notice, the test registers a value of 1.8062 with 309 degrees of freedom and a probability of 0.0719 (p>0.05); this indicates that there are no significant differences between average incomes of donors and receivers.

Since there are no significant differences between donors and receivers in terms of income, it should be noted that the level of income is not the main reason for such transfers. We might say, in the present context, that these transfers are made as part of a reciprocal and symbolic exchange model with close relatives who are emotionally linked to each other. Future research will examine the reasons behind financial transfers among older adults to determine if they are driven by human capital and economic investment.

A final step in the current analysis is to build a profile of both the recipients and donors of financial transfers by meeting their most important characteristics using multiple correspondence analysis. We will assess the profile of donors and recipients in terms of age, gender, education level, residence area, marriage status and health status.

According to the MCA analysis, a two-dimensional solution was found to be most appropriate, as the first 2 factor axis explain the largest differences between those who were donors and those who weren't.

Figure 4. Representation of statistical variables in the system of the first two factor axis.

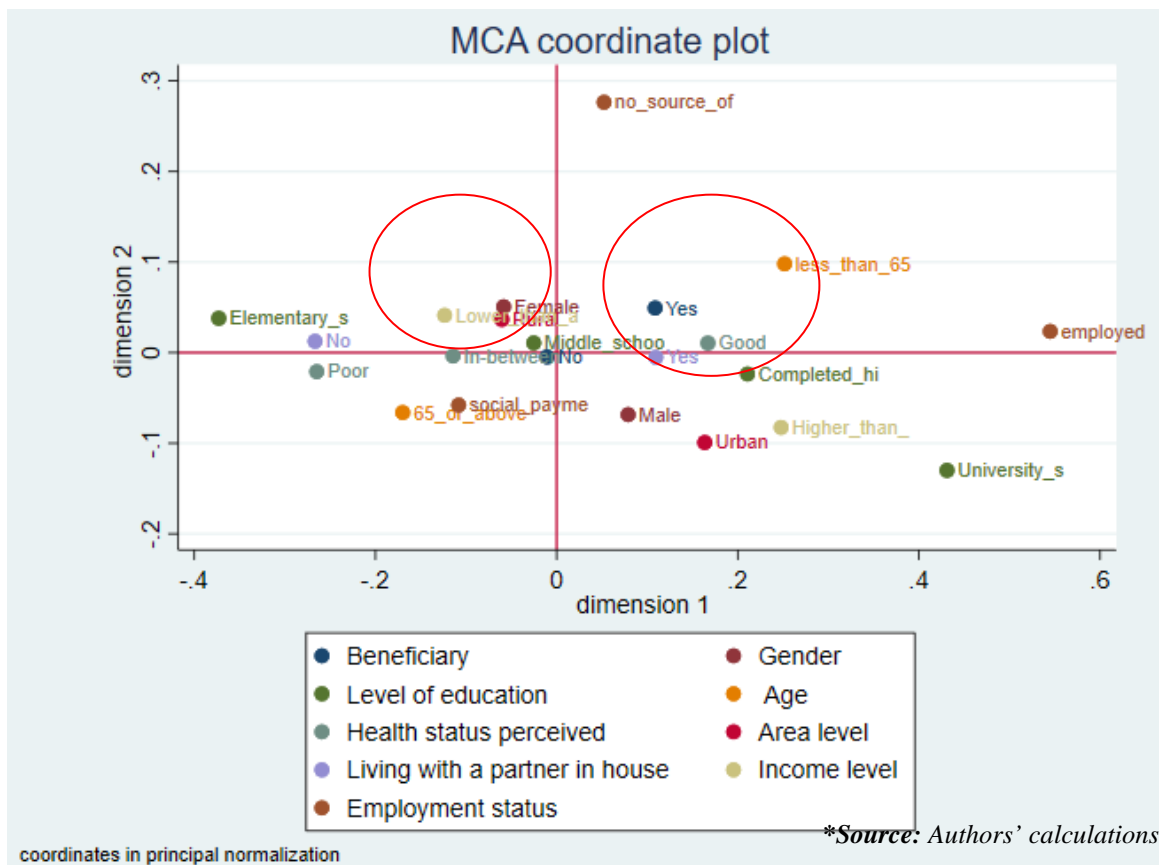


*Source: Authors' calculations

According to Figure 4, the people who have granted a financial transfer live in urban areas, are men, have graduated high school, reside with a partner in the house, are in good health and have an income higher than average. All these details point to a high probability that a person is likely to grant a financial transfer. At the other end of the spectrum, those who have not been granted a financial transfer are those in between states of health, who live in rural areas, are women, have below-high school education, are over 65 years old, receive social assistance and have income lower than average. From their profile, we can conclude that people who are defined by the characteristics analysed are more likely to be unable to provide a financial transfer.

Regarding the profile of beneficiaries (Figure 5), we observe that they are healthy and educated up to a high school level, live in urban areas, have partners with whom they live together and have an income level above the national average. In light of this, we cannot characterize the recipients of financial transfers as being in a state of need and explain the financial transfers to them from the perspective of their need for assistance. The same cannot be said of individuals who haven't received a financial transfer in the last year and whose profile indicates the need for assistance.

Figure 5. Representation of statistical variables in the system of the first two factor axis



We can conclude that the financial transfers received by older adults in Romania are not based on low living standards, so that they are helping to increase their welfare. Apparently the transfers are generated by people who have good financial positions, which are also observed in the recipients of these transfers, confirming that the granting and receiving of transfers involving the sum of 250 euros or more are directed to close relatives in a mutual and symbolic exchange.

Conclusions

Our findings indicate that, in Romania, the incidence of financial transfers having the amount of 250 euro or more is relatively high, considering the number of the transfers. In addition, we found that transfers are clearly downward, with transfers from parents to children being much more frequent and also much more intense than transfers in the opposite direction. The reason for this might be the fact that both Romania and the rest of Europe have at least a minimum pension system in place, which allows older people to remain financially independent, enabling them to pass some of their assets on to their children and grandchildren.

A second aspect that was identified was that there are no significant differences in income between donors and recipients, excluding the possibility that those with a better financial situation would donate more money. Using multidimensional correspondence analysis, profiles of donors and recipients in terms of socio-demographic characteristics can be made. The results show that both donors and recipients have similar characteristics, which led to the conclusion that financial transfers of 250 euro or more were made in a reciprocal exchange model.

These initial exploratory and graphical results pave the way for further research into the determinants of intentions to make financial transfers. The study also emphasizes the MCA's strengths as a method that can visualize association between categorical and ordinal variables in a more intuitive manner.

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CAN CULTURAL DIMENSIONS EXPLAIN THE LEVEL OF SHADOW ECONOMY IN THE EU?

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Abstract: *Informal or shadow economy and its multiple determinants have gained the attention of economic research, benefitting from a vast body of literature in the field. Even so, the nexus between the expansion of the informal economic sector and institutions, perceived as good practices, has been less explored. If the formal institutional component is easier to quantify in terms of impact determined on the informal economy, things are totally different when emphasizing how the informal institutions cause the auspicious circumstances as to further escalate shadow practices. Starting from such premises, our paper investigates the nexus between informal institutions, traditions, culture, values, attitudes, beliefs, or mentality that define the basic identity of any society and the predisposition of those societies towards shadow economy, applied to the EU -28. In other words, by using a mixed methodological approach based on the cultural dimensions provided by Geert Hofstede and a unique dataset of variables representative for the shadow economy and quality of informal institutions, we employ a cluster analysis and panel data analysis for the EU countries, including the United Kingdom. As expected, the results have fully validated the imperceptible contribution of unofficial institutions to the amplitude and gravity of informal economy, thus affecting the long-term prosperity of the country.*

Keywords: *Informal institutions, informal economy, shadow economy, culture*

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Introduction

The omnipresent issue of shadow economy has raised the interest of numerous international organizations, national governments, but mainly of researchers for more than three decades. However, the extent of such a phenomenon, its causes, or the proper ways to estimate its extent are far from being reached. In general terms, when referring to the informal economy, some substitute concepts such as shadow economy, untaxed or undeclared economy, are also used. All these have a common denominator – they include economic activities which avoid government regulations, taxation and the income derived from them (European Commission, 2014: 1). Nevertheless, the unlawful economic pursuits of the informal household economy are not included (Schneider et al., 2010: 5). The attention paid to the study of the shadow economy is justifiable given the impact of such an informal sector on the economic output of the nations (Buehn et al., 2009; Feige & Urban, 2008; Schneider et al., 2010). Undoubtedly, a higher share of informal activities in the GDP of a country will affect both the economic dynamics and the social life. For example, from the perspective of the economic negative repercussions, we can point out severe imbalances of the economy, lower economic productivity, lower revenues collected by the state etc. Concerning the social dimension, we can nominate severe effects in terms of social equity (Tudose & Clipa, 2016), a poorer quality of life due to the insufficient public spending oriented towards education, health, infrastructure, services. Poverty will be accentuated, thus affecting the level of social safety (Mishchuk et al., 2020). The extent to which a country is affected by shadow practices highly relies on the level of its economic development. According to Elgin and Birinci (2016), the share of the informal sector tends to be more pronounced in the case of poor or developing economies, while in the case of highly developed economies, the informal activities are better controlled and limited. Obviously, such discrepancies can be explained through the fact that limited economic growth can be associated with less effective formal institutions which allow informal rules of the game to prevail, thus encouraging the expansion of the shadow economy. Poor countries do not benefit from a solid institutional background, able to provide the necessary incentives as to stimulate the efficient allocation of scarce resources to their most productive destinations, human capital development, competition, a free-market mechanism guided by the meta-institution of democracy (North, 1990). Therefore, their informal institutions are rather extractive than inclusive, paving the road towards shadow practices. Regardless of the measures undertaken to limit the shadow economy, this is a problem of the modern society that will never entirely disappear. The European Union countries try to control it through different means or even sanctions applied so as to discourage it, but less importance is paid to the informal institutional pillar. In such context, our paper aims to investigate the nexus between the informal institutions and the predisposition towards shadow economy at the EU 28 level.

The remaining of the paper is structured as follows: section 2 presents the most relevant particularities from the vast body of literature on the relationship between informal institutions and shadow economy. Section 3 highlights the details concerning the data and methodology used as to shape our analysis. Section 4 reveals the results and discussions on the topic approached. Section 5 concludes.

Literature review

Although over the years there has been a well-defined tendency towards the decrease of the shadow practices as share in the GDP of the countries worldwide, a simple analysis applied to the European nations will point out the existence of shadow economy even since the late 1980s (Feige, 1979). The latest estimates for the European Union member states have emphasized a reduction of the average level of shadow economy as share in GDP from 22.6% in 2003 to 16.8% in 2018 (Schneider, 2019). Even so, the statistical scenarios for the future provide information with respect to two separate dynamics. On the one hand, for the case of most EU countries, the share of informal economy in their GDP is expected to diminish. On the other hand, for countries such as Bulgaria, Croatia, Hungary, Romania, and even outside the EU, in the United Kingdom, this phenomenon is expected to become more intense (Schneider, 2019).

The analyses of the shadow economy determinants are abundant and provide generous literature in the field (Feld and Schneider, 2010; Schneider and Enste, 2000; La Porta and Shleifer, 2008; Williams and Schneider, 2016; Schneider & Buehn, 2017). More recently, Chen et al., (2020) have pointed out several factors which stimulate the underground economy, namely: institutional quality, tax structure, tax burden, the level of intensity of the government regulation, government decentralisation, unemployment, official income, globalization, and openness. According to the general perspective of the analyses provided in the literature, there is a wide consensus today with respect to the fact that the shadow economy determinants have economic, political and institutional origins (La Porta and Shleifer, 2014; Williams & Schneider 2013; Schneider & Buehn, 2017; Medina & Schneider, 2018). Analysing the origins of shadow practices from the perspective of institutional economics, among the main causes of informal economy, we may identify elements belonging to the formal institutional area, such as: quality of public institutions, regulations, peculiarities of local governance, fiscal pressure, and factors that derive from the informal institutional background, such as: the social and cultural system, fiscal morals (Iacobuță et al., 2014).

Several studies, circumscribed to the theoretical background provided by the New Institutional Economics (Feige, 1997; Gerxhani, 2004; Iacobuță et al., 2014; Iacobuță & Pohoată, 2015; Williams et al., 2015), provide pertinent reasons for the existence and manifestation of the informal economy. According to Douglass North's paradigm (1990), institutions illustrate the proper way to diminish uncertainty because they create predictability and a stable structure for our everyday life. While formal institutions are represented by laws and written political, economic, and social regulations, the informal or unofficial rules are reflected by culture, traditions, codes of conduct, norms of behaviour, mentality, religion, morals (ethics), trust. In most research papers, the variables often used to explain the grounds of participating in the informal economic sector belong to the formal institutional area. For instance, some researchers have shown that the informal activities are less intense in those countries where government effectiveness, regulatory quality, business freedom, fiscal freedom and labour freedom are high (Iacobuță et al., 2014; Elgin & Öztunali, 2014; Maulida & Darwanto, 2018). Even so, for those societies where the formal institutional background is inefficient, the informal rules of the game will become a second-best landmark by structuring anachronist behaviours focused on opportunism

within social and economic relations between individuals and organizations (Bostan et al., 2016).

In our paper, we intend to analyse the impact of informal institutions perceived as rules of the game or constraints inherited from the past or perpetuated from a generation to another through culture, learning and imitation (North, 1990) on the shadow economy phenomenon in the 28 European Union countries, including the United Kingdom. According to Achim et al., (2019) or Pukin (2020), the fundamental contribution of informal rules of the game reflected by culture, mentality of a people or even religion cannot be neglected when explaining the affinity of individuals towards shadow practices. Irrespective of its multiple informal institutional underpinnings, our perspective is on the same wavelength with the one fairly pointed out by Alarcón-García et al., (2020), according to which it is extremely important to always frame and interpret shadow economy by considering the national dimension and context because the informal institutional determinants are always circumscribed to that particular national background.

Data and methodology

Data

Our empirical investigations based, on the one hand, on a hierarchical and k-means cluster analyses and, on the other hand, on a panel data analysis were applied on some specific dataset. Concerning the cluster analyses, we have chosen the six cultural dimensions provided by Geert Hofstede, respectively: Power distance, Individualism/Collectivism, Masculinity/Femininity, Uncertainty avoidance, Long-term/Short-term Orientation, Indulgence and the shadow economy for the year 2016, as most recent landmark, because cultural dimensions are presented as cross-section data, not as time-series one. It is important to mention that Cyprus was not present on the list of countries analyzed by Hofstede, so it is missing from our clustering endeavour.

Regarding our second analysis, the panel data, we deal with time-series. Consequently, our dependent variable is shadow economy as share of GDP provided by Schneider analyses. The independent variables that we have selected are Government integrity – a component of the Index of Economic Freedom provided by Heritage Foundation. Such variable surprises the predisposition of a society towards political corruption, nepotism, bribery, embezzlement and provides important information concerning the dominant attitudes which guide a specific nation, whether people have trust in politicians, whether they are willing to tolerate irregular payments and perceive it as normal behaviour or, on the contrary, they sanction immediately such deviant actions and demand for transparency, correctness, and trust. The second variable is Fundamental Rights, a component of the Global State of Democracy Indices provided by the International Institute for Democracy and Electoral Assistance. This main attribute of Democracy index is extremely representative for our analysis because it captures some fundamental features with respect to the informal institutional background existing in every country. Namely, it provides valuable information about civil rights and liberties, if they are respected or not, freedom of religion, of association and assembly, fair access to justice for all citizens, irrespective of their political affinities, their social or economic position, level of education, details regarding personal integrity and security of citizens. In other words, good informal institutions which were decanted in time should defend such

fundamental civil rights. Civilized nations, where democracy is at high standards, are fully based on equity and integrity, values that will inhibit shadow practices. The third variable is represented by Human Development Index provided by United Nations Development Programme (UNDP). It provides important information concerning the level of education, life expectancy and income per capita. This index indirectly assesses the quality of unofficial institutions. First, educated people value fairness, competition, trust, and equity and reject and sanction opportunistic behaviours or shadow activities that hinder economic development. Second, societies guided by good norms of behavior and positive mentality place the individual at the centre of economic evolution, taking care of the population's education, health, and longevity, but also of their standards of living. This is the case of countries guided by inclusive institutions. At the other end, we find countries guided by extractive institutions, where the political class and the perpetuation of power is the priority while the rest of the society remains sentenced to poverty, illiteracy, and premature deaths. Our series contain data available between 2000-2016, except for Fundamental Rights, which has a limited availability for the period 2000 - 2015.

Methodology

To capture the major influence of informal institutions on the level of shadow economy, our research is based on a mixed methodological approach comprising two parts. First, a Hierarchical Cluster analysis followed by the K-means Cluster analysis will be applied as to provide a comprehensive interpretation of the nexus between shadow economy and culture, identified in the cultural dimensions of Geert Hofstede for all EU countries, including the United Kingdom, but excluding Cyprus due to the lack of data. While the hierarchical cluster analysis will provide us with significant information with respect to the number of clusters, the second one, the K-means clustering will effectively group the EU countries in those specific clusters.

Secondly, a Panel Data analysis will be employed to examine the relationship on the long run between the level of shadow economy as share of GDP and the variables highlighting the quality of people's mentality, values, behaviour, codes of conduct, in other words, the quality of informal institutions. All series were tested for stationarity by using panel unit root test Levin, Lin & Chu and the individual unit root test, Im, Pesaran & Shin as a check for robustness. Given the large variety of data, a first difference was applied to the raw data in order to run the analysis. According to the literature in the field, an important advantage panel data analysis resides in the possibility to analyze large datasets, with N cross-sections, in our case the 28 EU countries, with large T time periods, 17 in our case. Moreover, this method allows to control the individual heterogeneity (Baltagi, 2005: 4). The general equation model of panel data is:

$$Y_{it} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \dots + \beta_k X_{kit} + u_{it} \quad (1)$$

Where: $i = 1, \dots, 28$ illustrate the 28 EU countries, including the United Kingdom;
 $t = 1, \dots, 17$ is the selected time span;

If the variables within the model are replaced, it will become:

$$SHE_{it} = \alpha + \beta_1 GI_{it} + \beta_2 FR_{it} + \beta_3 HDI_{it} + u_{it} \quad (2)$$

Where: SHE_{it} is the level shadow economy of country i in year t ;

GI_{it} reflects the government integrity of country i in year t ;
 FR_{it} highlights the fundamental rights of country i in year t ;
 HDI_{it} is the human development index of country i in year t ;

For choosing the best estimation model of the panel data analysis, we employ all three existing methods and their related tests. The first one is *the common constant method* (OLS method), that has the assumption that data set is a priori homogenous. Second, *the fixed effects method* (Least Square Dummy Variable - LSDV) is applied. Here, a dummy variable is included for each section, consequently implying different constants for each section.

In this case, the matrix becomes $Y = D\alpha + X\beta' + u$, where D is the dummy variable created for each section, as noted below.

$$Y = \begin{pmatrix} Y_1 \\ Y_2 \\ \vdots \\ Y_N \end{pmatrix}_{NT \times 1} \quad D = \begin{pmatrix} i_T & 0 & \dots & 0 \\ 0 & i_T & & 0 \\ \vdots & \vdots & & \vdots \\ 0 & 0 & & i_T \end{pmatrix}_{NT \times N} \quad X = \begin{pmatrix} x_{11} & x_{12} & \dots & x_{1k} \\ x_{21} & x_{22} & & x_{2k} \\ \vdots & \vdots & & \vdots \\ x_{N1} & x_{N2} & & x_{Nk} \end{pmatrix}_{NT \times k} \quad \alpha = \begin{pmatrix} a_1 \\ a_2 \\ \vdots \\ a_N \end{pmatrix}_{N \times 1} \quad \beta' = \begin{pmatrix} \beta_1 \\ \beta_2 \\ \vdots \\ \beta_k \end{pmatrix}_{k \times 1} \quad (3)$$

In this case, a Fisher test is necessary to decide what method is the best. The redundant Fixed Effects test will indicate if the fixed effects method can be applied or not. Third, a *random effects model* will be applied. The novelty here is that, in this latter model, the constant of every section is perceived as random parameters (Asteriou & Hall, 2011). Therefore, the model becomes:

$$Y_{it} = (\alpha + v_i) + \beta_1 X_{1it} + \beta_2 X_{2it} + \dots + \beta_k X_{kit} + u_{it}, \quad (4)$$

or

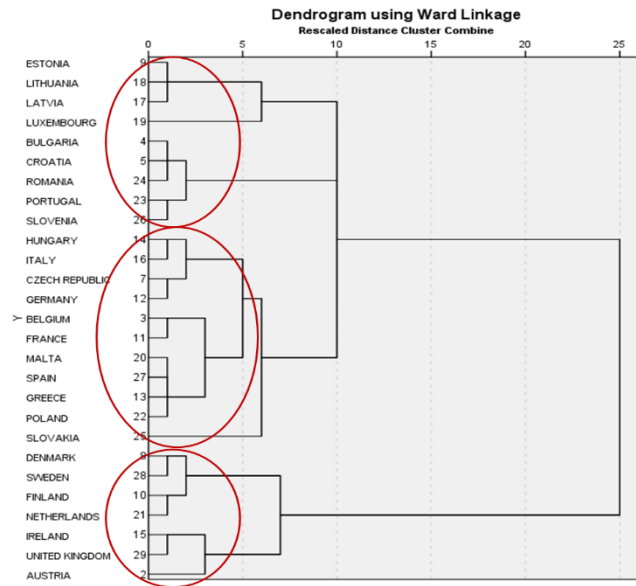
$$Y_{it} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \dots + \beta_k X_{kit} + u_{it} + v_i \quad (5)$$

Where: $\alpha_i = (\alpha + v_i)$ illustrates the variability of the constant, v_i - is a standard random variable with a zero mean. In such case, the Hausman test must be used to choose between the fixed effects model and the random effects one.

Results and discussions

The results obtained after applying hierarchical clustering are presented in Figure 1 below.

Figure 1. Hierarchical Clusters on cultural dimensions and shadow economy EU 27 – 2016



(Source: Personal assessment of data in SPSS)

As presented above, the countries can be grouped into three separate clusters. We will maintain this number of three clusters when applying the K-means clustering, which will tell us if the six cultural dimensions are representative for dividing the European countries in these three separate sets. The results are available in Figure 2.

Figure 2. Anova results – K mean Clusters

	Cluster		Error		F	Sig.
	Mean Square	df	Mean Square	df		
Power_distance	2673,348	2	247,165	24	10,816	<.001
Individualism	1992,663	2	178,707	24	11,150	<.001
Masculinity	2718,321	2	427,723	24	6,355	,006
Uncertainty	3531,569	2	229,391	24	15,395	<.001
LT_orientation	720,817	2	240,546	24	2,997	,069
Indulgence	2665,780	2	197,796	24	13,477	<.001
Shadow_economy	1102,588	2	188,991	24	5,834	,009

Source: Personal assessment of data in SPSS

The K-means clustering reveals that all seven variables, namely Power distance, Individualism/Collectivism, Masculinity/Femininity, Uncertainty avoidance, Long-term/Short-term orientation, Indulgence and Shadow economy are relevant to discriminate across our three clusters. The size of clusters is as follows: cluster 1 contains 8 countries, cluster number 2 contains 7 countries and cluster number 3 has 12 countries, but a more comprehensive perspective is highlighted in Table 1.

Table 1. Cluster membership

CLUSTER 1	CLUSTER 2	CLUSTER 3
<ul style="list-style-type: none"> ▪ Belgium ▪ Czech Republic ▪ France ▪ Germany ▪ Hungary ▪ Italy ▪ Poland ▪ Slovakia 	<ul style="list-style-type: none"> • Austria • Denmark • Finland • Ireland • Netherlands • Sweden • United Kingdom 	<ul style="list-style-type: none"> • Bulgaria • Croatia • Estonia • Greece • Latvia • Lithuania • Luxemburg • Malta • Portugal • Romania • Spain
<ul style="list-style-type: none"> • High power distance • Rather high individualism • High masculinity • Moderate uncertainty avoidance • High long term orientation • Moderate indulgence • Low shadow economy 	<ul style="list-style-type: none"> • Low power distance • Rather moderate individualism • Rather moderate masculinity • Rather low uncertainty avoidance • High indulgence • Rather moderate shadow economy 	<ul style="list-style-type: none"> • Average power distance • Low individualism • Rather low masculinity • High uncertainty avoidance • Rather low long term orientation • Low indulgence • High shadow economy

Source: Personal assessment of data

According to Table 1, the most efficient countries in terms of shadow economy (Cluster 1) are Belgium, the Czech Republic, France, Germany, Hungary, Italy, Poland and Slovakia. These countries have the lower levels of shadow economy as shares in their GDP. Cluster 2 groups nations characterised by a rather moderate level of shadow economy, namely: Austria, Denmark, Finland, Ireland, Netherlands, Sweden, and United Kingdom. In the third group, those nations dealing with the highest levels of informal economy are included: Bulgaria, Croatia, Estonia, Greece, Latvia, Lithuania, Luxemburg, Malta, Portugal, Romania, and Spain. The institutional explanation for the results that we have previously obtained, from the particular perspective of culture as an informal institutional exponent are presented in Table 2 below.

Table 2. An informal institutional interpretation of Shadow economy in EU 28

Cluster 1 – LOW Shadow economy	Cluster 2. MODERATE Shadow economy	Cluster 3 HIGH Shadow economy
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<ul style="list-style-type: none"> ▪ High attachment to following rules. ▪ Competition and performance through hard work, high work ethics. ▪ Problems solved with the application of clear rules! ▪ Traditions and good practices serve as solid landmarks in decision making. ▪ People fight for their desires. 	<ul style="list-style-type: none"> • People take on responsibility for their decisions. • Moderate competition among people. • Problems are solved by following rules, but sometimes compromises are accepted. • No fear of new situations – have beliefs and an appropriate mentality. • People are free to accomplish their objectives! 	<ul style="list-style-type: none"> • Obedience (ex-USSR space) • Limited competition, innovation. • Problems solved by compromise, rules are avoided. • Fear of new situations, not confident in the future. • The culture of immediatism – no thinking on the long run. • Restraint culture – people are obedient, they accept what it is given and do not fight for their needs.
<ul style="list-style-type: none"> • <i>High power distance</i> • <i>Rather high individualism</i> • <i>High masculinity</i> • <i>Moderate uncertainty avoidance</i> • <i>High long term orientation</i> • <i>Moderate indulgence</i> • <i>Low shadow economy</i> 	<ul style="list-style-type: none"> • <i>Low power distance</i> • <i>Rather moderate individualism</i> • <i>Rather moderate masculinity</i> • <i>Rather low uncertainty avoidance</i> • <i>High indulgence</i> • <i>Rather moderate shadow economy</i> 	<ul style="list-style-type: none"> • <i>Rather high power distance</i> • <i>Rather collectivist</i> • <i>Low masculinity</i> • <i>High uncertainty avoidance</i> • <i>Short term orientation</i> • <i>Low indulgence</i> • <i>High shadow economy</i>

Source: Personal assessment of data

Several main ideas can be pointed out based on the information in Table 2 above. First, rather individualistic, masculine, with moderate indulgence countries are more attached to effective rules and their precise application, especially in solving conflicts. They benefit from a good informal institutional basis that shapes a proactive mindset focused on work ethics, trust, discipline, and order; consequently, they will not tolerate opportunism and shadow practices. In the middle, there are the countries from the second cluster, characterized by a low power distance, but in a combination with a rather moderate individualism and masculinity, meaning that, in solving conflicts, compromise can be admitted sometimes; however, moderate competition and relative attachment to following rules and order can explain their higher predisposition towards a more intense shadow economy compared to the first group. Thirdly, countries which belong to cluster number 3 are the most exposed to shadow or informal economic practices, undermining their own economic development. The cultural profile of these countries consists in low individualism and masculinity, short term orientation or the so-called immediatism, and high power distance. Most of these countries experienced the centralized planning system in the past, which highly vitiated their informal institutional background through the coercion and the forced obedience in front of the regime, or due to limited experience related to competition and innovation, to fear when dealing with uncertainty and a rather collectivist mentality, where the rules did not equally protect all the individuals but favoured those who had the power to the detriment of the rest. Countries with such cultural specificities have a higher predisposition to tolerate and moreover, to apply and perpetuate shadow practices because they take advantage of the compromise culture and are not afraid of rules. Such results are on the same wavelength with the existing body of literature in the field and, moreover, with the perspective promoted by the New Institutional Economy.

When addressing the first step of our analysis, a cultural feature such as power distance highlights the existing inequality among society members. The attitude of the country's specific culture towards these inequalities will provide significant information with respect to the affinity of the people towards obedience and acceptance of the fact that power is unequally distributed. Individualism or collectivism will point out the degree of interdependence maintained between the members of a society or, on the contrary, the long-term commitment to a certain group in exchange for loyalty. Masculinity versus femininity provided relevant information concerning the focus of society members on competition, achievements, and success, or on being satisfied with what they have. Generally, in a masculine society, conflicts are solved by fighting them out, while in a rather feminine society, compromises are preferred. Uncertainty avoidance tells us how societies deal with ambiguity, but this cultural dimension also provides some interesting and extremely important insights with respect to the mentality of the people and their ability to remain attached to rigid codes of belief and behaviour or, on the contrary, to cope with challenges and act flexibly. Long versus short term orientation is a dimension revealing the way in which past experiences, traditions and norms are kept alive and serve as a landmark for the current and further challenges. Consequently, it highlights the affinity of a society to perpetuate the so-called path dependence phenomenon or, in other words, to allow pre-existing mental constructs, occurred based on past events, to shape current decisions and even to decide further outcomes. The last dimension, indulgence or restraint, emphasizes people's capacity to control their intentions and wishes (Geert Hofstede, 2021). In different terms, it reflects the optimism or, on the contrary, the level of pessimism derived from the wrong perception that human actions must be circumscribed to the existing body of social norms.

The results of the panel data analysis after applying the first estimation method are pointed out in Table 3.

Table 3. Common Constand Method

Variable	Coefficient	Probability
C	23.78992	0.0000*
GI	-0.000146	0.0335**
FR	-0.002881	0.0066*
HDI	-0.000194	0.07125***
R² = 0.147763		DW = 0.694607

Note: *Statistically significant at 1%; **Statistically significant at 5%; ***Statistically significant at 10%.

Source: Personal assessment in EViews

The R-square value indicates that the variation of the shadow economy is explained by the selected independent variables in a proportion of 14.77%, which is not satisfying enough. Moreover, there may be some autocorrelation problems but, even so, the independent variables are statistically significant. We will apply the Fixed Effects model but, before that, an F test is required to see if there is any variability of the constant.

Table 4. Redundant fixed effects test

F test value	Probability
16.910435	0.0000*

Note: *Statistically significant at 1%

Source: Personal assessment in EViews

The redundant fixed effects test is based on the null hypothesis according to which all the constants (for each section) are the same. The probability associated is lower than 5%, which indicates that we can reject the null hypothesis. In other words, the fixed effects model can be applied.

Table 5. Fixed Effects Method

Variable	Coefficient	Probability
C	36.62656	0.0000*
GI	-0.001617	0.0000*
FR	-0.005022	0.0012*
HDI	-0.001609	0.0230**
R² = 0.428546		DW = 1.9655106

Note: *Statistically significant at 1%; **Statistically significant at 5%;

Source: Personal assessment in EViews

According to the fixed effects model, our variables: government integrity, fundamental rights and human development index are negatively correlated with shadow economy, an aspect which is correct and explains the shadow economy in a proportion of 42.85%. This is a good result for a heterogeneous panel analysis.

Table 5. Random Effects Method

Variable	Coefficient	Probability
C	24.46229	0.0000*
GI	-0.000794	0.0000*
FR	-0.003695	0.0042*
HDI	-0.000985	0.0620**
R² = 0.172933		DW = 1.623595

Note: *Statistically significant at 1%; **Statistically significant at 10 %;

Source: Personal assessment in EViews

This estimation of the model is not satisfactory, given the lower R square which points out that the independent variables explain the variation of shadow economy in a proportion of 17.29%. The Hausman Test will be applied as to choose the best estimation model between the fixed and random effects ones.

Table 6. The result of the Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. df	Probability
Random effects	42.539026	4	0.0000*

Note: *Statistically significant at 1%;

Source: Personal assessment in EViews

The probability associated to the test is lower than 5%, so we reject the null hypothesis and the fixed effects model remains the best to express the correspondence between the model and the data set. Given the fact that it essentially captures some specific features that vary between the 28 European countries, such a result was not surprising. As we have previously pointed out, these countries belong to distinct clusters, each group with

its own cultural specificity. Also, we can observe some distinctive approaches towards dealing with integrity, fundamental rights as pillars of democracy and human development among these countries. From this perspective, our results are on the same wavelength with the ones of Feige (1997), Elgin & Öztunali (2014), Achim et al., (2018) or Pukin (2020).

Conclusions and limitations

Shadow economy remains an important endogenous limitation on growth and prosperity. Despite all initiatives undertaken to limit and prevent such toxic practices, the human being will always be guided by bounded rationality, information asymmetry and risk. When opportunism enters the social game, the situation becomes even more complicated because transaction costs to reduce shadow activities are too high. In general, when adjusting to a situation, people need written rules that clearly state what is allowed and what is forbidden, but most of the analysis neglects the dominant role of the informal, unofficial rules of the game; some are so rigid that centuries or at least decades are required to change. This is culture, or the mentality of people, but it can also highlight a set of norms of behaviour, beliefs, attitudes, practically the most important prerequisites to shape a normal society. In our paper, we intended to provide evidence with respect to the major influence of such an informal sector on the level of shadow economy.

As our results have emphasized, a higher presence of the informal economy can be associated with some specific cultural features such as a high-power distance, a rather feminine and collectivist society, with a significant level of uncertainty avoidance, a lower indulgence level and a high to moderate level of long-term orientation. Such results may be regarded as an extension of the New Institutional Economy by shaping an even more precise profile guided by rather extractive than inclusive rules of the game and by creating the auspicious premises for opportunistic behaviours, corruption, and low ethical standards, etc. The results of our panel data analysis illustrate an extension of the cluster analysis because it once more provides support for the existing discrepancies between the EU 28 countries in terms of informal institutional contribution to the country-level extent of the shadow economy phenomenon. Consequently, those countries guided by ineffective mentality which tolerate or even encourage lower government integrity, nepotism, public money theft, low work ethics are the same countries with a higher level of illiteracy, poor education and living conditions, people that can be easily manipulated, those who accept limited fundamental rights and liberties. The lack of trust in a fair legal system does not bother them but is, on the contrary, perceived as an “open window” to opportunistic behaviour and informal economic activities implying gaining or hiding easy money without much effort.

Conversely, the countries with the lowest shares of informal economy in their GDP are the ones that serve as examples of good practices when cultural specificity is addressed. Practically, they have already benefitted from a solid inclusive informal institutional basis transposed into order, attachment to effective social, economic, or political rules, discipline, trust, work ethics, integrity, and equity. On such a fertile ground, the respective societies lead in terms of education, civilization, standards of living, government integrity, democracy, and fundamental rights, and therefore, informal practices are not welcome here. Precisely because people have higher living standards and feel protected within

society, they are not willing to avoid the legal system, to weaken their democracy and self-destroy what they have built in decades through collective efforts.

From a particular perspective, Romania is the country with the second highest level of shadow economy from the entire European Union and fully validates the result of our study. According to both cluster analyses, it belongs to the third group of countries confronted with higher shares of informal economic activities hindering growth and prosperity. In 2007, when the country joined the European Union, people believed that the new status would determine a sort of "great transformation" and the "European vaccine" would heal all the problems that could not be solved in more than two decades of transition. Unfortunately, Romania confirms that the changing process must come from inside the society and not from outside. While the mindset of the people is still harmed after the experience of centralized planning and coercion, while our most common values, beliefs and attitudes are vitiated by the extractive political and economic institutions which guided the country on its way to the market economy, these pre-existing mental constructs remained alive and have created an auspicious background for shadow activities. Many other EU countries are in a similar condition and, consequently, informal institutions do matter when fighting against shadow economy because the solutions are within us and our will to change the way we think and act.

Our study also has some limitations. First, we nominate the difficulty to find some relevant statistical variables able to capture the quality of informal institutions. Even though Geert Hofstede Institute provides six cultural dimensions, these can only be used as cross-section data and no series were available. Secondly, there is a limited availability of time series data. For instance, although the information provided by World Values Survey is representative for the quality of informal institutions, it is not available for a long period of time and not for all European Union countries. In the case of Romania, the data is available only for the short period of 2017-2020, which has not been useful for a panel data approach.

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LEARNING ANALYTICS IN THE CURRENT UNIVERSITY CONTEXT

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Abstract: *The impact that technological progress has on the knowledge society has made the information that students receive come from many media channels. This aspect makes the current generation of students need decantation of them, in the educational environment, so that they can differentiate the qualitative information from the popular one, but without guarantees of quality. As learning tools have modernized and online platforms have become vital in these pandemic times, the ways in which learning analytics is qualitative have also evolved.*

Keywords: *Big Data Analytics, Data Mining, Learning Analytics, EDM*

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Introduction

The spectacular development of electronic technology has paved the way for computerization in many fields, with computers becoming more than just accessories. The 21st century offers us the opportunity to notice a heterogeneity of the way information is transmitted and evaluated in the education system: although we encounter more and more super-technological examples, we have the opportunity, at the same time, to notice schools where the methods of the 20th century are still used, or even earlier ones, if we consider some countries, such as those on the African continent. It would be inelegant not to notice the way in which the didactic process is carried out in some Romanian small isolated villages, long debated in the media, especially on the threshold of the beginning of a new school year. Since the beginning of the new millennium, a phrase has been established regarding the use of computers: the second literacy. And, it seems that the most appropriate term could be used for literacy in the education system itself.

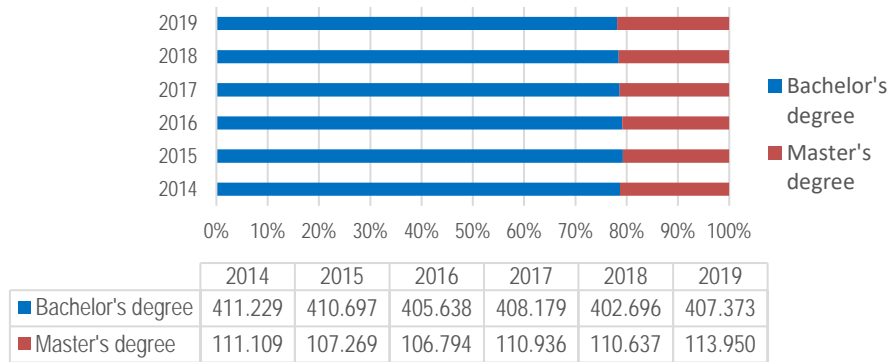
The devastating impact of the COVID-19 pandemic has forced the approach to the same common denominator: online learning. Thus, information technologies have become very necessary, with a much more intense discussion about increasing investment in this field. Limited resources in low-income areas have prevented many students from gaining access to a level playing field due to the fact that teachers have had to restructure their

classrooms based on available resources and access to technology (Prihar, et al., 2021). Learning analytics is what measures, collects, analyzes and presents data about students and their contexts, in order to understand and optimize learning and the environments in which it takes place (ElSayed, Caeiro-Rodríguez, Mikic-Fonte, & Llamas-Nistal, 2019).

The Permanent Sign of Change

For a very long time, Romanian higher education, like the entire education system, has been under a “sign of change”. But, just as astrology does not offer certainties of the fulfillment of expectations, neither what happens in this field so vital to a healthy evolution of society enjoys the fulfillment of the desideratum. Thus, an obvious impression would be that of an inertia that simulates evolution: on the one hand, teachers “do their job” according to the study norm, and on the other hand, students adapt to those requirements, but what seems to be lacking is the purpose of the purpose of such an interaction. For example, better synchronization between the labor market supply and what is done in colleges would be of real use; after all, one of the important roles of education is the preparation of man for active integration in social life, as a labor force, as a subject of social life (Buia, 2018). It is good to keep in mind the interest of higher education for high school graduates. According to INS data from 2019, just over 400,000 high school graduates chose to enroll in college in the 2018-2019 school year, a considerably smaller number than in 2008, when nearly 900,000 high school graduates opted for higher education. (Gheorghe, 2019). Since 2011, the number of those who choose to pursue undergraduate studies is less than 500,000, with a decreasing trend. In Figure 1 we graphically plotted the proportion of undergraduate students compared to master's students. However, compared to the fact that Romania's population is also declining, there is a percentage increase in the population with higher education at the country level, as seen in Figure 2. The ratio between the number of students enrolled in undergraduate education and the master one is also interesting.

Figure 1 Share of the number of undergraduate students, compared to the master's degree

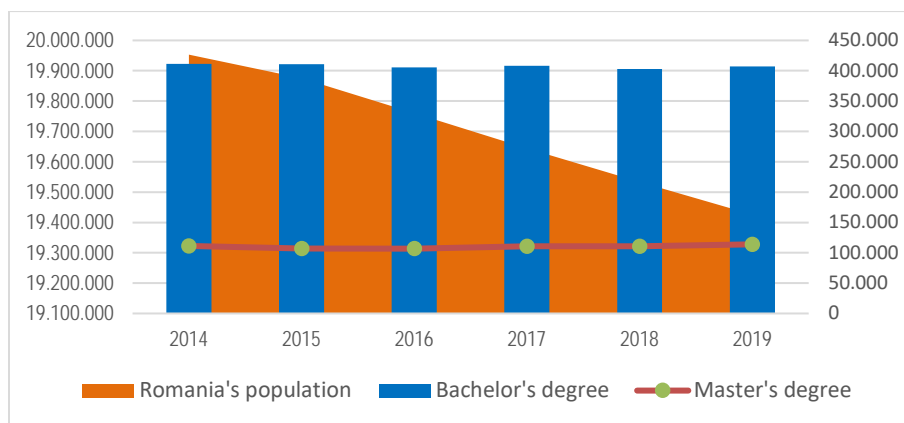


Source: Processing according to INS data (INS, 2019)

There are specializations such as computer science, for example, where students come to study it because it offers great employment opportunities; to the same specialization, however, come students who already master (or believe they master) the “secrets of IT” well and need only a certification of what they already know. There are also

specializations that offer employment niches, not necessarily in the field for which they are preparing. Thus, remaining in the area of IT jobs, foreign language graduates, in addition to their natural jobs (e.g. technical writers), manage to hire even technical ones, precisely because they have very good knowledge in that language, to the detriment of the technical training they perform at work, through intensive training. There are, however, specializations in the field of hard sciences, which offer serious premises for research, but less for employment, not being tempting for students. Also tempting are the socio-economic specializations and quite a few of the socio-human specializations (Bobâlă, Ţugulea, & Bradu, 2014). At the same time, employers claim that young people do not take into account the field studied when choosing a job, but rather the salary they receive (Gheorghe, 2019).

Figure 2 Evolution of the number of students (bachelor, master) compared to the Romanian population



Source: Processing according to INS data (INS, 2019)

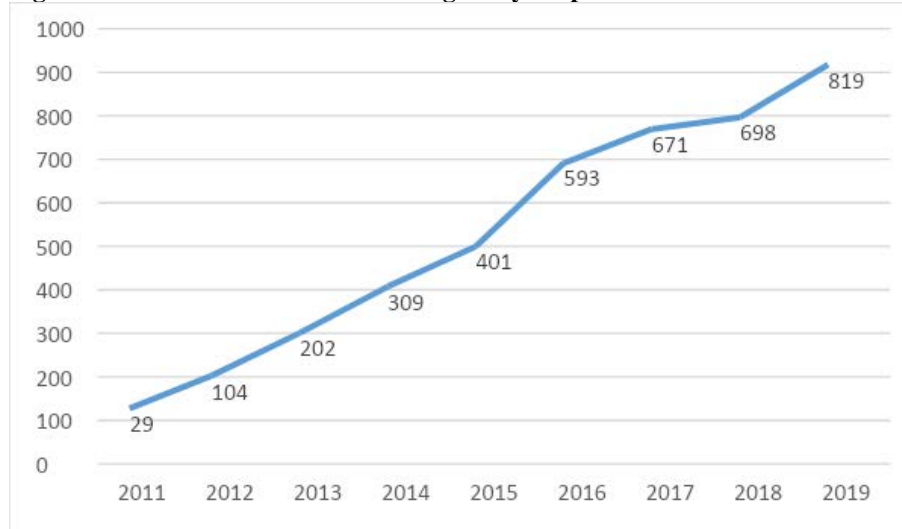
On the other hand, the way in which the candidates for higher education choose their specialization can be analyzed following the difference between the field of study chosen for the bachelor and the master, identifying a potential hypothesis of the cause for which they “change the switch”; this occurs against the background in which the reorientation at the master's level does not always bring real anchors on the labor market, especially in the conditions in which the master's degree does not have the “weight” of the bachelor's degree.

Learning Analytics in the Knowledge Society

The impact that technological progress has on the knowledge society has made the information that students receive come from many media channels. This aspect makes the current generation of students need a decantation of them, in the educational environment, so that they can differentiate the qualitative information from the popular one, but without guarantees of quality. Learning tools have modernized, and online platforms have become vital in these pandemic times; the ways in which the analysis of learning can be qualitative have also evolved. Thus, it is intuitive that the interest of researchers, but also of

practitioners in the field of education for the analysis of learning has increased. In fact, in one study, it can be seen that the number of publications dealing with the subject of “learning analytics” has increased greatly, showing the growth of techniques, methods and applications of learning analytics (Lee, Cheung, & Kwok, 2020), as can be seen in Figure 3.

Figure 3 Number of studies on learning analytics published in the SCOPUS database



Source: Lee, Cheung & Kwok (2020)

In order for the learning analytics to be carried out in the deepest possible way, it is necessary to support Big Data but also Data mining, both technologies representing important landmarks in making analyzes and predictions, not coincidentally involving large companies such as Oracle, IBM, Microsoft etc. Big Data provides opportunities for new statistics or the redesign of existing statistics (Braaksma, Zeelenberg, & De Broe, 2021, p. 327). If, initially, three defining features of the big data sets were considered (volume, speed and variety), later two more were identified, of interest being the “v-ization” of the characteristics (all five words start with the letter V):

- their high *volume* can lead to better accuracy and more detail;
- their high *velocity* can lead to more frequent and timely statistical estimates;
- their high *variety* can provide opportunities for statistics in new areas;
- *veridicity* (veracity) refers to the fact that being uncertain, the data must be verified;
- the *value* of the data can be evaluated by analysis.

Common forms of Big Data include Internet data, transaction data, administrative data, commercially available databases, publicly available data, and paradata (data about the process by which data were collected) (McCoach, Dineen, Chafouleas, & Briesch, 2021, pp. 628). As Schroer (2021) mentioned, Big data is becoming a transformative tool for all aspects of education, enabling educators to use large data sets to:

- draft personalized lesson plans,
- predict learning outcomes,

- support students in identifying forms of education that suit their interests and abilities.

Specific Characteristics of the Learning Analytics

Last year has accelerated the way in which information technologies can be used in education, increasing the popularity of online education, many online learning systems, but also learning management which has been open-source. A comprehensive e-learning platform must be an integrated system of teaching, learning and management of educational content based on modern pedagogical principles and provide support for teaching and learning, testing and assessment, content management, learning monitoring and curriculum design (Şuşnea, 2012, p. 14). When it comes to education, the experience of recent years has shown us that the aspect of quality, but also the way in which it is supported to obtain qualitative results are part, as it were, of a story that involves “windmills”...

Learning analytics systems capture students' behaviors, commonly referred to as “digital breadcrumbs” that students leave throughout the system, in LMSs, as students navigate and interact with colleagues, but also with the digital space (Jones, 2019). If in a broad sense, the learning analytics investigates a large amount of data from education and presents the results of stakeholders for evidence-based decision making (Chen, 2019, p. 1957), in a brief presentation, the perspectives involved in the learning analytics represent (Drachsler & Greller, 2011) skills (to exploit the benefits), constraints (restrictions or potential limitations for anticipated benefits, i.e. constraints related to privacy and ethics), methods (technologies, algorithms, theories), data, objectives (for setting goals to be achieved), partners (contributors and beneficiaries of learning analytics).

According to Khalil's model (2017), the learning analytics framework considers four main parts: the learning environment in which stakeholders produce data, Big Data which consists of massive amounts of data sets and large repositories of information, the analysis comprising different analytical techniques and action, where goals are achieved to optimize the learning environment. In a student-centered educational system, data on the activities of students throughout the course in which they are enrolled, processed and interpreted correctly, can provide important information to staff responsible for the proper conduct of teaching activities (educational managers, teachers, software developers, specialists in the field of psycho-pedagogy) (Şuşnea, 2012, p. 15). The development of web tracking tools has facilitated the learning analytics to enable educational institutions to gather much needed data about students' learning experiences. The development of web tracking tools has facilitated the collection of necessary information about the learning process by educational institutions.

Table 1 shows the distinction between academic analytics and learning analytics, the latter being more specific than the former. Academic analytics involves students and the institution, while learning analytics is beneficial for students, the institution, but also instructors/ educators.

Table 1 Comparison between Academic Analytics and Learning Analytics

Academic Analytics	Learning Analytics
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Academic analytics is a business intelligence application in higher education.	Learning analytics is associated with the collection, measurement and analysis of student data.
It can be applied at three different levels: institutional, regional, national/ international.	It can be coupled at course and department level.
The beneficiaries are the administrators, the financiers of the educational authorities.	The beneficiaries are the students and the instructors.
It can facilitate the comparison of different educational systems.	It can help the learner and the instructor understand the pattern of success or failure.
It can help administrators ensure optimal use of resources.	It can make it easier to identify a smart resume.

Source: Adam, Abu Bakar, Fakhreldin, & Abdul Majid (2018)

Therefore, the purpose of academic analysis is to support institutional, operational, and financial decision-making processes, while the overall purpose of learning analytics and EDM is to understand how students learn (Viberg, Hatakka, Bälter, & Mavroudi, 2018). Certainly, if before the widespread use of information technologies, the learning analytics was more obvious, with the use of LMS, everything happens discreetly, to the invisible, the application taking its necessary data from clicks, navigation, in the same way that very popular social networking platforms obtain such data. In order to collect much-needed data on students' learning experiences, the learning analytics has been fully supported by the development of web tracking tools (Czerkawski, 2015). Digital data collection considerably reduces labor and material resources, but also the time required to conduct research/ analysis. The collection of data, their processing in order to highlight trends and regularities does not ignore the human factor. Although many educational institutions have access to a lot of data about students (grades, attendance records, physical addresses and contact details, different fees) there are a number of challenges in using this data to improve the experience of pupils/ students. Thus, in 2017, according to Kenneth Green (2017), only a third of the entities stated that the investments made in data and managerial analysis had maximum efficiency; In 2018, another third of institutions systematically collect, integrate and use data from their own information systems for students (Howells, 2021).

The use of online platforms became a must-have for learning during this period when the crisis caused by the SARS-CoV-2 virus limited physical interaction. Many institutions have not been trained, so they have improvised the way they work online, without emphasizing the confidentiality of data. The learning analytics was almost in the same situation. Data collection in online learning environments is essential if they are combined with appropriate tools, theories and frameworks to model theory and guide practice, with learning analytics thus playing a very important role for learners and learning sciences. It is important what kind of data collects, manages and uses the system for analysis, who is targeted by the analysis, why the system analyzes the collected data and how the system analyzes the collected data (Chatti, et al., 2014). It is useful to mention the essential role that digital knowledge content plays in the design of learning and in the interactions of learners that appear in intelligent learning, which is defined as learning in interactive, intelligent and adapted environments, supported by advanced digital technologies and services.

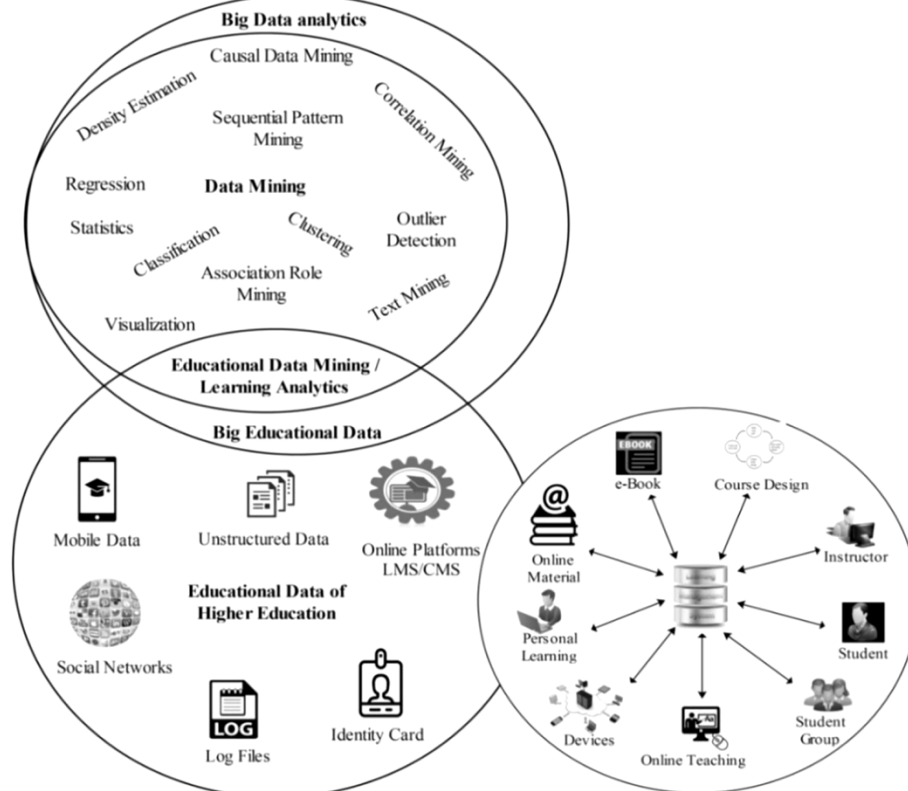
Help in assessing how to achieve teaching and learning through online media comes from massively open online courses, saving costs and increasing revenue, improving

educational outcomes, expanding the accessibility of learning materials for all by providing support for open educational resources (Khalil, 2017, p.21). Learning analytics offers the possibility to make decisions based on data about education by using quantitative methods, with the help of computer science, statistics, but also psychology.

Convergence of the exploitation of large data sets for the purpose of learning analytics

The combination of data exploitation and analysis in the educational field can mainly lead to improved students' understanding of the learning process by identifying, extracting and evaluating variables related to students' characteristics or behaviors (Baradwaj and Pal, 2012). According to the illustration in Figure 3, it is observed that the actions involving the extraction of predictive information are done using large data sets, and part of the data used in higher education provides the ground for exploring data related to the education system, through learning analytics; the analytics follows both the students and the teaching staff. Although it is observed that the overlap of EDM and the learning analytics is considerable, it is not total. Moreover, this similarity inevitably generated comparative studies between the two platforms, given the ambiguity in the definitions and objectives of the two emerging areas, so as to reach a better understanding of each area and its delimitation in subspecializations, their limits and overlaps, and their tensions and contradictions (Lemay, Baek, & Doleck, 2021).

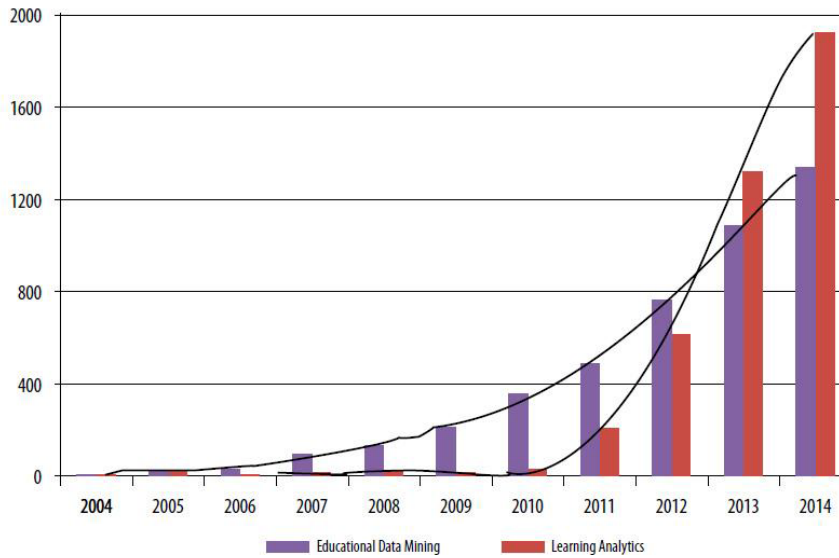
Figure 3 Scheme of using EDM and LA in higher education



Source: Calvet Liñán & Juan Pérez (2015)

The graph in Figure 4 is also suggestive, where, following the example of Google Scholar, it can be seen that these fields of research have increased since the beginning of 2010, EDM starting a few years earlier. According to Aldowah, Al-Samarraie, & Fauzy (2019), Data mining in education is at the convergence of different types of analysis: computer-aided predictive analysis, computer-based learning analytics, computer-aided visualization analysis, and computer-based behavioral analysis.

Figure Evolution of EDM and LA references in Google Scholar



Source: Aldowah, Al-Samarraie, & Fauzy (2019, p. 14)

Learning analytics, academic analytics and educational data extraction (EDM) are closely related research areas; they aim to support research and practice in education (Siemens & Baker, 2012). The role of learning analytics is to improve education by providing information that otherwise cannot be obtained without the availability of data and technology today (Tsai, et al., 2020).

Conclusion

It can already be considered an axiom that information technologies have become part of everyday life of students facilitating access to information useful to the learning process. It goes without saying that it is desirable that the learning and the way in which this is done be evaluable, in order to improve its quality, if necessary. Given that, increasingly, information technologies are used for the purpose of learning, measuring, collecting, analyzing and reporting data on learners and their contexts, evaluation can be easily obtained. Apparently, this is also easy in view of the fact that, increasingly, those to whom learning is addressed are part of a dynamic generation and very attached to technology. The mismatch between user needs and the structuring of computer systems can lead to insufficient use of information, which has an important role in building trust and solidarity in an organization. Evaluation, as an operation of comparing a result with a goal,

analyzes the situation from which it started with the one it arrived at, based on a benchmark or information and referring to criteria, in order to make a decision.

Learning analytics, as a field of research, has evolved rapidly as a necessity of supervising the quality of education, taking into account the ethical and privacy aspects. The analysis of the way in which the information technologies support the entities to increase their efficiency is the one that can determine perspectives of the progress and the qualitative growth in any field, the education being able to represent a “spearhead”. The application of data mining in higher education is still in its infancy and needs a lot of attention. The results, combined with the involvement of decision-making political entities, can change education for the better.

It can be assumed that both the extraction of educational data (EDM) and Learning Analytics continue to expand, due to the relevance of the analysis based on large data sets (Big Data) performed so far; this also occurs due to the potential benefits they generate, both for students, instructors, administrators, researchers and for society in general. The use of these types of data in the learning analytics can offer the possibility to make predictions, by summarizing the data in ways that are not only easy to understand, but also useful to the owner.

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