STATE UNIVERSITY OF MOLDOVA

With manuscript title:
CZU: 658.14/.17(043)

BUMBAC DANIELA

MODERN FINANCING METHODS: INTERNATIONAL PRACTICES AND OPPORTUNITIES FOR THE REPUBLIC OF MOLDOVA

Specialty: 522.01. Finance

Abstract of the doctoral thesis in economic sciences

Chișinău 2025

The thesis was developed within the Department of "Finance and Banking" of the State University of Moldova

Scientific Coordinator:

ȘTEFANIUC Olga, PhD in economic sciences, university lecturer

Official reviewers:

SECRIERU Angela	Doctor habilitated in economic sciences, university professor, ASEM
POSTOLACHE Victoria	PhD in economic sciences, university lecturer, „Alecu Russo” State University of Balti

Composition of the Specialized Scientific Council:

DOGA-MÎRZAC Mariana	*president*, Doctor habilitated in economic sciences, university lecturer, SUM
COJOCARU Maria	*secretary,* PhD in economic sciences, university lecturer, SUM
COBZARI Ludmila	Doctor habilitated in economic sciences, university professor, AESM
ULIAN Galina	Doctor habilitated in economic sciences, university professor, SUM
PÂRȚACHI Ion	PhD in economic sciences, university professor, AESM
TIMUȘ Angela	PhD in economic sciences, university lecturer, NIER

The thesis defense will take place on May 30th, 2025, at 2:00 P.M., at the meeting of the Specialized Scientific Council D 522.01-24-70 of the Moldova State University, at the address: MD-2005, Chisinau municipality, 60 Alexei Mateevici street, central block, 3rd floor, room 331.

The doctoral thesis and the abstract can be consulted at the Scientific Library of the State University of Moldova and on the ANACEC website (www.anacec.md).

The abstract was sent on April_29th_, 2025.

Scientific Secretary of
the Specialized Scientific Council: **Maria Cojocaru**
Phd in economic sciences, university lecturer

Scientific Coordinator: **Olga Ștefaniuc**
Phd in economic sciences, university lecturer

Author: **Daniela Bumbac**

TABLE OF CONTENTS

CONCEPTUAL LANDMARKS OF THE RESEARCH

Relevance and Importance of the research topic. Emerging trends in the global financial system, the intensification of economic and commercial relations and the increasingly pronounced need of economic entities to access sources of financing on advantageous terms have generated a reconfiguration of the financial market, opening up new perspectives on the adoption of modern financing methods in the Republic of Moldova. Thus, new financing methods have emerged that do not require guarantees, as is the case with credits and loans offered by banks and non-bank lending institutions. In developed economies, in addition to traditional financing through credits or from own sources, modern alternatives have also been imposed, with a beneficial impact on sustainable economic development.

The topicality of the research topic is determined by the constraints of the national financial market, characterized by a limited offer, mainly focused on financing through bank loans. Studying modern financing methods, such as factoring, crowdfunding and sustainable instruments, is essential for SMEs in the Republic of Moldova. They offer alternative capital solutions, stimulate investments and support economic growth. The role of financial institutions and the legislative framework is crucial in facilitating access to these instruments. Research in this area is necessary for the development of efficient policies adapted to the current needs of the business environment.

The degree of study of the research topic. Studying the specialized literature developed by researchers from the Republic of Moldova in which the problems, sources and methods of financing are addressed, allows us to conclude that concepts such as reverse factoring and sustainable financing are insufficiently researched. In most cases, the works address conceptual aspects and particularities, reflecting in a general way, financing methods such as factoring, venture capital financing, receivables securitization, forfaiting, crowdfunding, grants and subsidies. Previous research is largely devoted to external financing sources from banks and non-bank lending organizations (loans), as well as from other external donors, such as regional and international financial institutions (grants). Detailed analyses aimed at describing the principles and mechanism of financing, the associated advantages and disadvantages, global trends, regulatory aspects, as well as the constraints on the development of modern financing methods within the national financial system, can be found in doctoral theses and scientific articles published in specialized journals and materials of scientific events.

Several researchers from the Republic of Moldova have significantly contributed to the development of this issue: Cobzari L., Botnari N., Ulian G., Băncilă N., Doga-Mîrzac M., Brumă I., Ștefaniuc O., Fuior E., Erhan L., Grabarovschi A., Timuș A., Stratan Sv., Postolache V., Gherjavca Sv. and others. In Romania, the issues of financing and their sources are the concern of several researchers: Cotolencu M., Roventa M., Ivănescu D., Păun C., Popescu S., Toma M., Ilie V., Stancu I., Ghiță O., Popa V., Ponea O., Dănilă O., Pascaru S. and others. An essential contribution to the development of the research subject was brought by Russian economists and researchers, among whom we mention: Alekseeva A., Kiseleva E., Kolobanov D., Parfenova L., Kovalev V., Emilianov E., Erșov I., Spiridonova E., Zhukov O., Popova E., Gambeeva Iu., Semina E., Laskina L., Pogostinskaia N., Kurbatov S. and others. Extensive descriptions of modern financial theories and new financing methods are also contained in the scientific works of other researchers, which focus on the experience of European countries and other international markets: Chareaux Ch., Adair Ph., Charpin J., Dietsch M., Baresa Suzana, Leroux Fr., Bakker M., Doove S., Petra G., Robinson J., Paul Harpern, Thomson Jh, Carpentier C., Colot O., Croquet M., etc.

These scientific researches constitute a solid basis for studying and deepening the theoretical and practical concepts regarding the development and application of modern financing methods in an efficient, transparent and well-regulated financial system. In the context of global economic changes and the digitalization process, the adoption of innovative financial instruments adapted to the new requirements becomes essential. In the framework of the doctoral research, the author emphasizes the need and relevance of integrating modern financing methods into the structure of the national financial system, highlighting the positive impact that they can have on sustainable economic development. The subject addressed offers opportunities for examining new perspectives and identifying solutions to current challenges in this area, thus contributing to enriching the conceptual and practical basis of modern financing. The study of specialized literature and the analysis of current practices allowed the author to formulate viable proposals and solutions for improving and consolidating the financial system at the national level.

The object of this research is modern financing methods from the perspective of their gradual integration into the financial system of the Republic of Moldova.

In relation to this, a scientific **hypothesis** was formulated, which consists in the assumption that the gradual integration of modern financing methods into the financial system of the Republic of Moldova, by taking over and adapting international practices, as well as by applying a complex mechanism for financial and non-financial assessment of the debtor's sustainability, will contribute to the diversification of available financing instruments and facilitating the access of economic entities to financial resources, including sustainable ones.

The purpose of the research is to provide a theoretical and methodological foundation for modern financing methods, develop tools for assessing the debtor's eligibility and sustainability, in order to facilitate the access of entities in the Republic of Moldova to alternative financial resources and formulate recommendations for the diversification of financing methods in the Republic of Moldova, aligned with international trends and sustainable development objectives.

The objectives established to achieve the stated purpose are:

- Conceptual substantiation of modern financing methods and their delimitation in relation to traditional financing methods.
- Studying the connection between financial theories and modern financing methods.
- Comparative analysis of international and Moldovan practice regarding the mobilization of financial resources through modern financing methods.
- Identification of modern financing methods applicable in the Republic of Moldova.
- Development of analytical tools for assessing the creditworthiness and eligibility of businesses in the context of accessing sources through modern financing methods.
- Development of a non-financial assessment methodology, intended for analyzing the sustainability profile of the debtor in the process of accessing modern financing methods.
- Formulation of recommendations regarding the gradual integration of modern financing methods into the national financial system, in correlation with the agenda for achieving sustainable development objectives and facilitating business access to alternative financing.

Scientific research methodology and information support. The research is based on a wide range of sources, including works by local and international economists, as well as analyses and reports prepared by renowned institutions, both national and international. Among the relevant national institutions are the Moldova Sustainable Development Fund, the National Bank of Moldova, the National Financial Market Commission and the Organization for the Development of Entrepreneurship. At the international level, a significant role in providing data and analyses fell to organizations such as the Organization for Economic Cooperation and Development (OECD), the

World Bank, the European Central Bank, the European Bank for Reconstruction and Development and the International Factoring Association.

The sources used included studies on modern financing in advanced economies, such as the USA, France, Germany, the UK, along with official statistics, institutional reports and scientific articles published by experts from the country and abroad, including Romania. These sources constituted a solid basis for analyzing global trends, identifying success models and formulating conclusions relevant to the national context.

The research methodology integrates both quantitative and qualitative methods. Descriptive statistical analysis was applied to describe trends and synthesize data on the evolution of modern financing methods. The documentary analysis method was used to study international good practices of public policy documents and the national and international legal framework. Comparative analysis was used to examine the differences between various financing methods, both traditional and modern, as well as different types of modern financing methods developed internationally. The comparison was also used to highlight international trends with those at the national level. The questionnaire method was used to accumulate data on access to financing sources at the national level. Scientific methods were also used in the research process, such as: systemic analysis, the method of analogies, synthesis, deduction and last but not least, statistical-mathematical and econometric methods. These approaches allowed for a comprehensive investigation of the issue of modern financing, ensuring the relevance and objectivity of the conclusions formulated.

Scientific novelty of the results. The scientific novelty of the obtained results includes:

1. specifying the concept of "modern financing method" and developing a systematized classification of financing methods based on evolutionary approaches, highlighting the peculiarities and advantages of modern methods over traditional ones;
2. identifying the constraints of the development of modern financing methods in the Republic of Moldova compared to those in the European space;
3. developing and validating the financial assessment model of the creditworthiness of legal entity clients, applicable in the process of accessing financial resources offered through financing methods other than bank credit;
4. developing and implementing the non-financial assessment model of the bank's legal entity debtors, based on sustainability criteria (ESG), applicable within the framework of sustainable financing;
5. determining the opportunities and constraints regarding the development of modern financing methods in the Republic of Moldova, with an emphasis on the potential of sustainable financing and the specifics of the domestic economy;
6. identifying and formulating proposals for the development and adjustment of the national regulatory framework for participatory financing and for sustainable financing in order to facilitate access to financing for the business environment;
7. establishing new directions for the development of modern financing methods within the national financial system.

Theoretical and Practical Value of the Thesis

The theoretical value of the thesis results from the following*:*

- ✓ deepening and developing the theory of sustainable financing in the context of new international financial trends;
- ✓ outlining a classification of modern financing methods from the perspective of financing sources, the degree of associated risk and their evolutionary prospects;

- ✓ highlighting the main benefits of modern financing methods such as: factoring, crowdfunding, venture capital financing and sustainable financing, demonstrating their positive impact on economic development;
- ✓ identifying the role and particularities of integrating sustainability criteria in the risk assessment process and bank financing decision-making;
- ✓ developing the concept of sustainable financing and adapting it to the specifics of the national financial system, providing a solid theoretical basis for its integration into local practices.

The applied value of the work consists of*:*

- ✓ recommendations regarding the adjustment of the regulatory-legislative framework in the field of non-banking credit organizations;
- ✓ concrete measures developed to adjust the regulatory-legislative framework in the field of venture capital financing and participatory financing;
- ✓ argumentation of the need to implement the financial assessment model of the creditworthiness of the bank's debtor, legal entity, applicant for (short, medium) term financing;
- ✓ argumentation of the need to implement the assessment model of debtors, legal entities based on sustainability criteria (ESG) in the financing decision-making process;
- ✓ determination of the development directions of the national financial system in the context of ensuring long-term sustainable economic development.

Scientific problem solved in the work consists in the theoretical and methodological substantiation of modern financing methods and establishing priority directions for their development within the national financial system, in order to promote a sustainable economic system, in the conditions of the new international and regional context.

Implementation of results. The results of the research included in this work have been publicly presented at national and international scientific events, as well as in specialized journals. Proposals and recommendations regarding the establishment of a single supervisory authority for banks and non-banking credit institutions, with modifications to the current legislation, the development of the financial evaluation model for debtors, and the sustainability evaluation model for bank clients, as well as the directions for the development of modern financing methods in the national financial system, have been transmitted and accepted for implementation by the Economics, Budget, and Finance Commission of the Parliament of the Republic of Moldova, the National Bank of Moldova, and BC "Moldindconbank" S.A.

Approval of results. The main theoretical-methodological approaches, analyses, and practical recommendations formulated and reflected in this work have been reported in scientific papers presented in reviewed specialized journals and at national and international scientific conferences, workshops, and roundtables organized by research centers, with a total of 20 scientific papers.

Thesis structure. The thesis is structured into an annotation, introduction, three chapters, conclusions and recommendations, bibliography, and appendices.

Keywords: financial system, modern financing method, factoring, crowdfunding, venture capital financing, credit institution, bank credit, sustainable financing, sustainability, credit risk.

THESIS CONTENT

Chapter I Theoretical Foundations of Financing Methods in the Financial System are dedicated to presenting the main theoretical and methodological aspects regarding the financing of economic entities and the classification of financing methods. This chapter clarifies and distinguishes the fundamental concepts of source of financing, financing instrument, and financing method, providing a solid conceptual basis for subsequent analysis. Moreover, the concept of modern financing methods is defined and analyzed, and a typology of these methods is proposed, structured according to their historical evolution and associated risk levels. The chapter also includes a review of the main modern theories regarding the financing of economic entities, along with the presentation of the new theory of sustainable finance, which is gaining increasing importance in the current economic context. Another key aspect addressed is the synthesis of modern financing methods, highlighting their concept, specific features, and role in supporting various economic sectors. Additionally, the issue of access to finance is analyzed, with a focus on the vulnerabilities faced by businesses in the process of obtaining the necessary financial resources for development.

Furthermore, the chapter emphasizes the importance of credit risk assessment associated with modern financing methods and analyzes the particularities of the methods used for evaluating the creditworthiness of debtors, a critical aspect in ensuring the sustainability of financial flows.

Financing the activity of an economic entity has always been a pressing issue. Own resources are often insufficient to cover the financing needs and may not fully support the development strategies of the entity. Therefore, businesses are frequently compelled to seek alternative sources of financing.
The analysis of specialized literature allows us to distinguish two main components of the financing process: the source of financing and the financing method. In this context, it is necessary to highlight the source of financing as the element indicating where resources can be requested to cover an entity's financial needs (external or internal), and the financing method as the mechanism that ensures the coverage of these needs. These two elements can thus be considered interdependent and complementary.

The selection of financing sources and methods represents a particularly relevant challenge for management teams and investors. Although there are numerous opinions in the specialized literature regarding the concept of financing, it is difficult to find one that fully captures its essence.
Based on research findings, financing can be seen as the key that opens the door to an entity's future. In this context, financing plays a fundamental role in ensuring the development, continuity, and proper functioning of an economic entity. In the author's view, based on specialized literature, sources of financing can be defined as a set of financial means provided by certain subjects/institutions to which the entity can appeal for financing its economic-financial activities. At the same time, the financing method is presented as a procedure or method through which an economic entity is provided with financial resources aimed at the continuous development of its activity.

The choice of certain sources and financing methods is crucial, as capital implies certain costs that directly impact the financial results of the entity, leading to either a decrease or an increase. The financing process involves two participants: on one side, the entities requesting financing, and on the other, the credit institutions that offer financial resources based on a thorough evaluation of the financing requests, ultimately, making a decision regarding approval or rejection.

According to specialized literature, in addition to traditional or classical financing methods, the financial market also includes alternative methods, sometimes referred to as specific, alternative, or modern financing methods. It should be clarified that some authors, particularly Russian ones such as A. Zhukov, I. Laskina, and D. Ershov, classify these forms of financing as modern financing methods, whereas Romanian authors like M. Roventa and Gh. Caraiani refer to them as modern financing techniques. However, none of these authors provide a clear definition or precise explanation of these concepts. Given that the term "modern financing technique" is not widely used in European specialized literature, we consider it more appropriate to use the term modern financing method.

According to the Explanatory Dictionary of the Romanian Language, the word "modern" means "belonging to the present time, current, new, recent, different from tradition, not outdated", while the term "alternative" signifies "the possibility of choosing between two solutions, paths, or situations." Thus, we can deduce that all financing methods, other than internal sources, represent alternatives for the entity. The use of the term "specific methods" is considered erroneous because "specific" means "belonging or characteristic to a being, thing, or phenomenon." Consequently, all financing forms are specific in their own way, which differentiates them from one another.

As highlighted in studies conducted by the Organisation for Economic Co-operation and Development (OECD) on new approaches to SME and entrepreneurship financing, two major categories of financing methods can be distinguished: those based on classical instruments and those based on alternative (modern) instruments. Classical instruments include bank loans, overdrafts, credit lines, credit cards, and commercial credits. These forms of financing are typically available to entities with stable cash flows, moderate growth, and high financial stability. Based on the author's analysis and considering the time factor, two major categories of financing methods can be identified: the first includes traditional or traditional forms, and the second encompasses modern financing methods. The main forms of both classical and modern financing methods are presented in Figure 1.

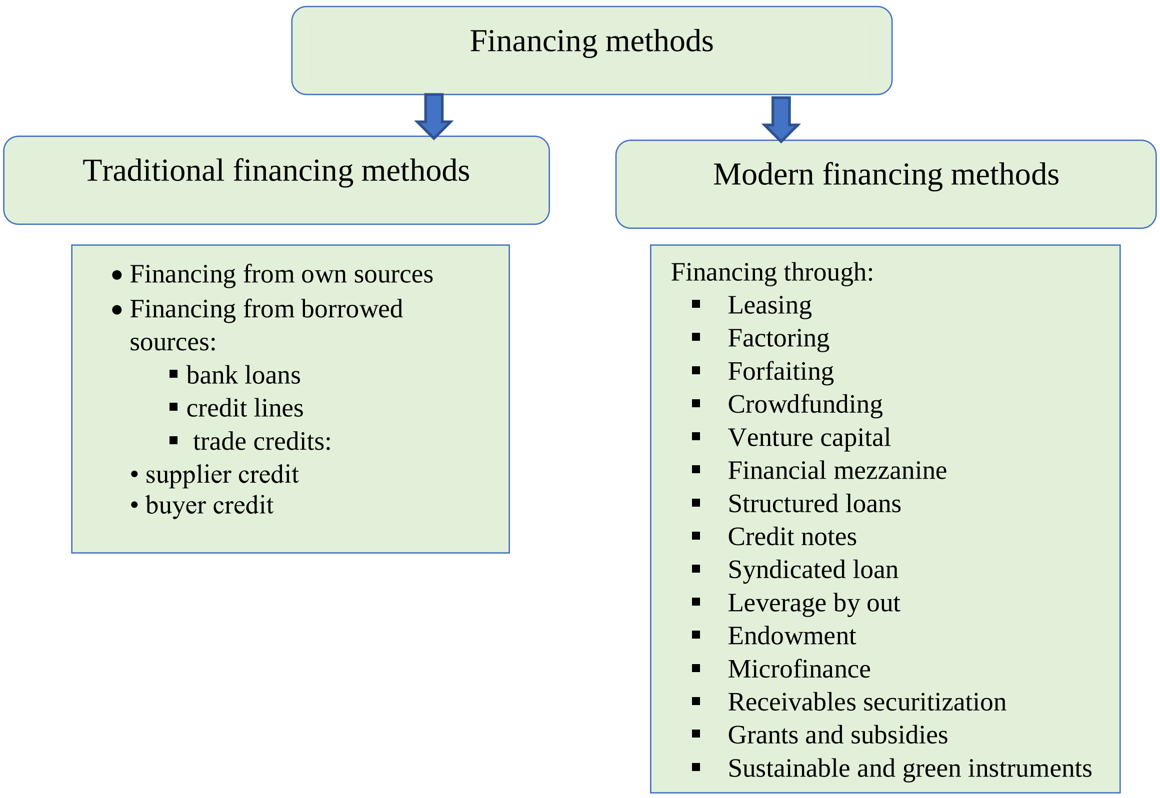

Figure 1. Typology of financing modalities according to evolutionary approaches
Source: Prepared by the author based on sources [10].

The concept of modern financing method can be supported by the fact that it differs from classical methods primarily through the time characteristic. While classical methods such as bank loans and other borrowing forms, including commercial credits, have existed since antiquity — with the notion of credit first recorded in the Code of Hammurabi in the 6th century BC — modern financing methods emerged and developed during the late 17th and early 18th centuries, becoming more widespread at the end of the 19th and beginning of the 20th century, during the so-called "modern era". Theoretical approaches regarding modern financing methods remain very limited and vague, often simply presented as a type of financing without a clearly defined concept.

Based on the research conducted, it is observed that, at the beginning of the 2000s, only three modern financing methods were significantly present in developed countries: leasing, factoring, and, to a lesser extent, forfaiting. In the past 5–7 years, research into modern financing methods has intensified, and new forms have been studied and introduced, such as venture capital financing, asset securitization, syndicated loans, crowdfunding, microfinance, endowment funds, and mezzanine financing. Among the modern financing methods mentioned, crowdfunding is considered the newest, having emerged and developed as a concept starting in 2006 [11, p. 275].

Based on the studies carried out, we observe the presence in highly developed countries at the beginning of the 2000s of only three modern financing methods, such as: leasing, factoring and, in very general terms, lump-sum financing. In the last 5-7 years, research in the field of modern financing methods has intensified, so, in addition to these three methods, others are also researched and presented, such as: venture capital financing, asset securitization, syndicated credit, crowdfunding, microfinancing, endowment, mezzanine financing. Among the modern methods listed, the newest financing method can be considered crowdfunding, which appeared and developed as a concept starting with 2006 [10, p. 275].

According to the analyses carried out by the author, considering the time factor, two major categories of financing methods can be identified: the first includes traditional or classical forms, which comprise self-financing and financing through loans, while the second includes modern financing methods such as factoring, venture capital, forfaiting, crowdfunding, receivables securitization, mezzanine financing, and sustainable financing.

To highlight the differences between modern and classical financing methods, several key factors can be considered: the source of financing, accessibility, risk, costs, flexibility, and economic impact. Modern financing methods represent a viable alternative to classical ones, especially for start-ups and SMEs, as they eliminate the need for guarantees and credit history. These methods stand out for their high degree of flexibility, speed, and accessibility, although they may involve a higher level of risk. In contrast, traditional methods are characterized by stability and stricter regulation, providing greater security to investors but limiting access to financing. Classical financing methods allow for the coverage of treasury and investment needs, but they do not fully provide the necessary financing at certain stages of an entity's development. In particular, bank loans are not intended for newly created, innovative entities experiencing rapid growth and development. Today, bank lending remains an indispensable tool for meeting the financing needs of economic entities, but at the same time, diversification of financing options is necessary to ensure long-term investments and to reduce the vulnerability of the SME sector to fluctuations in the financial credit market.

Alternative, modern financing methods differ from classical ones in that they are provided by private investors and other financial market actors, not just by banking institutions. Their main characteristic is investing in forward-looking projects with a higher risk of implementation. The main advantage offered by these financings is the much faster access to financial resources under advantageous conditions, even when the entity has no recorded credit history — that is, has not previously used external borrowing (bank loans) but is facing a liquidity shortfall. The financing procedure is much simpler than the process of granting bank loans. Compared to traditional bank loans, these instruments involve higher costs but offer a wider opportunity for the financed amounts. These financing methods are successfully practiced in developed countries to provide the necessary resources to entities, including those in the small and medium-sized enterprise (SME) sector.

The results of research based on the theoretical approaches of each particular method allow for the definition of modern financing methods as the set of instruments, methods, and financing procedures, other than traditional ones, that combine aspects of lending, risk-taking, receivables management, and their tracking, carried out for a certain period based on specific contracts in the respective field, and which, in addition to interest payments, involve the collection of certain fees related to the financial service provided.

To date, there is a noticeable gap regarding studies carried out nationally on modern financing methods, some being studied in a complex manner (e.g., particularities, financing method, stage, related risk), while others are only known at the conceptual level. Modern financing methods differ from classical ones in that they are provided by private investors and other financial market actors, not just credit institutions. Their main characteristic is investing in promising projects with high implementation risks. The main advantage of these financing methods is the faster acquisition of financial resources under advantageous conditions, even when the applicant entity has no recorded credit history meaning it has not accessed external borrowing sources (bank loans) but faces a liquidity deficit. The financing process is much simpler compared to the granting of bank loans. Unlike traditional bank loans, the new modern methods imply higher costs but also offer a broader opportunity in terms of financing volumes. These financing methods are successfully practiced in developed countries to provide necessary resources to entities, including SMEs, particularly for financing start-ups and innovative projects.

An essential element of obtaining financing for entities is related to the issue of access to finance. Analyses in the field of access to finance highlight a correlation between company size and perceived obstacles: the larger the company, the less likely it is to face financing difficulties, unlike smaller companies, which are more exposed to such obstacles. In the United States, for example, financial institutions consider small companies to present a higher risk regarding loan repayment, discouraging them through:

- setting high-interest rates;
- imposing shorter repayment terms;
- establishing stricter collateral requirements.

In 2022, most companies across Europe suffered from the effects of rising inflation, fueled by the consequences of the energy crisis caused by Russia’s aggression against Ukraine. Following a survey conducted by the Bank of France on access to finance for European entities during 2022-2023, 86% of the companies surveyed reported an increase in interest rates for bank loans and other bank financing costs. New loans granted decreased, particularly due to a drop in the credit supply. Studies highlight a significant increase in factoring during the 2020-2022 period, with tightened lending conditions encouraging many SMEs to opt for this alternative solution. In comparison, leasing and hire-purchase options faced recovery challenges. In the field of digital financial services, new innovative offers were recorded, encouraging the growth of online banks and alternative financing platforms. These platforms increasingly attract companies, including SMEs neglected by the traditional financing system.

Research conducted on access to finance for Romanian companies highlights issues related to the full approval of requested amounts. In this context, it is worth mentioning that only 18% of Romanian SMEs had the entire requested amount approved under loans from banks and non-bank financial institutions (NBFIs), while for large companies, this figure stands at 44%. In contrast to Romania, where the preference for bank loans exceeds 25%, in other European countries, most companies prefer bank loans to finance their growth ambitions, with this option exceeding 50% of financing preferences. Thus, French companies would opt for a bank loan in 76.5% of cases, compared to "only" 50.9% in the Netherlands and 60.5% in Belgium.

In the Republic of Moldova, companies' preference for accessing financial resources is directed towards own capital, accounting for 25–40%, while bank loans represent 20–25%, with the rest covered from other sources. Studies and analyses similar to those conducted by the NBR (National Bank of Romania), the Bank of France, and the OECD on entities' access to finance have not been conducted in the Republic of Moldova. Only research published in specialized scientific journals or presented at national and international conferences can be mentioned. Nevertheless, conclusions can be drawn from the analysis of the financing sources structure presented in Figure 2, showing that, for the most part, enterprises in the Republic of Moldova have been financed through attracted funds (57–66% of total sources).

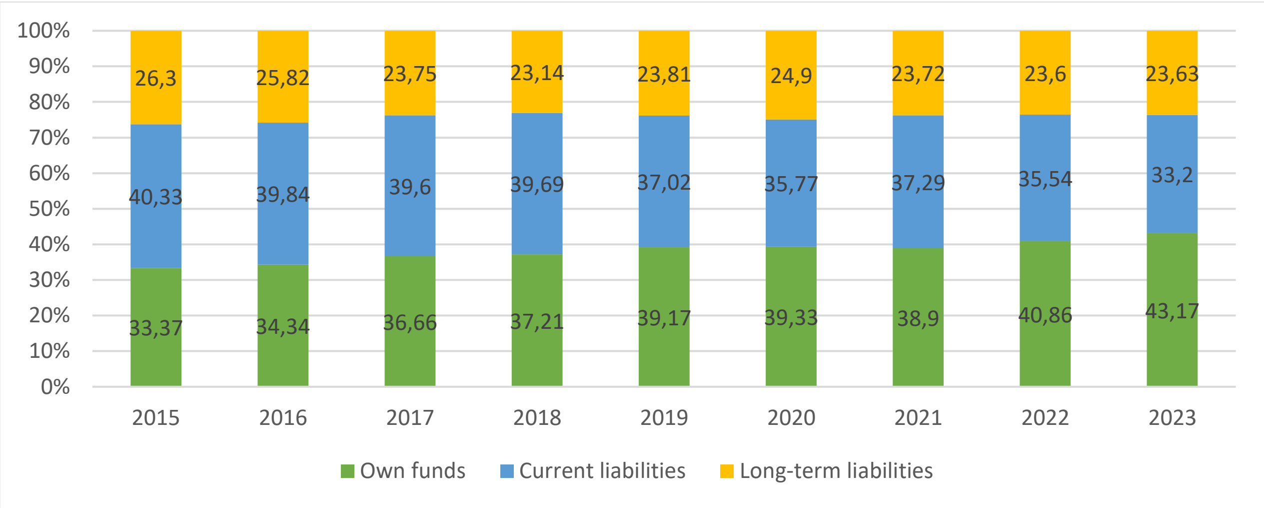

Figure 2. Structure of financing sources of enterprises in the Republic of Moldova in the period 2015-2023 (%)

Source: *Prepared by the author based on NBS data*

The issues constraining access to finance for national entities are related to: high interest rates for bank loans, limited availability of long-term financial resources, underdeveloped financial markets, and the limited number of financial support programs for SMEs. Among the main causes leading to limited access to financing for entities are:

- the lack of incentives for financial institutions to engage in entity financing;
- the tendency of entrepreneurs to avoid formal sector regulations and taxes by operating fully or partially in the informal sector;
- higher administrative and transaction costs in SME financing compared to large companies;
- insufficient or absent collateral;
- the lack of financial offers for start-ups and young entrepreneurs;
- the low competitiveness level of SMEs.

An efficient financial system must ensure the procurement of financial resources by all entities under diversified circumstances while directing the "financial wealth" generated from various sources towards efficient and productive investments. Credit institutions, which currently hold a monopoly in the credit financial market, hinder the development of new financial products. In this context, the presence of other financial market actors, such as non-bank financial institutions, private/public investors, and other non-banking actors, plays an essential role in providing resources to meet the financial needs of entities. For an efficient financial outlook for economic entities, it is necessary to focus on diversifying financial sources and instruments to ensure that entrepreneurs act as engines of resilient, sustainable, and inclusive growth.

Modern theories regarding corporate financing confirm that financing sources should be chosen based on the cost of capital and the expected return. Unlike classical theories, modern theories shed light on financing options at different stages of an entity's development. The emergence of a large number of investors who, besides seeking financial returns, aim to achieve positive environmental and/or social impacts has led to the birth of a new paradigm in financial theory—sustainable finance theory—outlined as a concept after 1970. Unlike traditional financing, which focuses solely on financial returns (i.e., profit-making) and views the financial sector as separate from society, sustainable finance integrates financial, social, and environmental benefits as a whole. Thus, the new theory combines aspects of financing, strategic investment decisions, and business operations linked to the Sustainable Development Goals (SDGs).

In general, the new theory of sustainable finance can be considered a new direction in economic research, contributing:

1. the introduction of new concepts into the field of financial studies (economic analysis, social sciences);
2. the proposal of a new methodological framework to substantiate these concepts and open new possibilities and perspectives for a state's economic development.

In the author's opinion, the new theoretical approach to sustainable finance combines (integrates) the financial and non-financial objectives (social and environmental responsibility) pursued by investors on one hand, and the integration of sustainability criteria (ESG) into corporate strategies on the other. It can be confidently stated that the outlining of the theoretical and methodological aspects of sustainable finance is not yet complete. Largely, sustainable finance theory is presented as a model of the "desired future," related to the broader concept of sustainable development.

In European practice, alongside classical methods, modern financing methods are increasingly highlighted within the banking financial system, such as factoring, forfaiting, crowdfunding, leasing, mezzanine financing, sustainable finance, grant and subsidy financing, venture capital financing, and asset securitization, as well as microfinancing.

The typology of modern financing methods is closely correlated with the size of the enterprise and the degree of risk associated with its activity. Small and medium-sized enterprises (SMEs), especially those at early stages of development or operating in highly volatile sectors, tend to access alternative financing sources such as venture capital, crowdfunding, or mezzanine financing, as these instruments are suited for higher risk profiles and accelerated growth potential. On the other hand, large enterprises with stable cash flows and a solid financial history are more likely to use modern low-risk instruments such as financial leasing, factoring, or syndicated loans. Thus, the choice of modern financing method depends on the enterprise's size, stage of development, and risk profile.

The choice of a financing method is closely linked to the level of risk the enterprise is willing to assume and the stage it occupies in its life cycle. Each financial instrument entails a certain risk profile and offers distinct conditions for access, repayment, or equity participation. For instance, debt financing such as bank loans, leasing, or factoring is often preferred by companies with stable cash flows and a strong financial track record, the main risk being that of default.

Credit risk assessment plays a crucial role in the current financial landscape, contributing to managing uncertainties and preventing losses. This process ensures the stability and profitability of financial institutions by helping them anticipate and mitigate risks associated with lending. Credit risk evaluation determines the probability that a borrower will fail to meet their financial obligations. It enables organizations to manage their portfolios with greater precision and security. Constant risk monitoring provides them the flexibility to quickly adapt to market changes, strengthen their strategies, and prepare for potential challenges. Credit risk occupies a central role in the financing process, influencing the availability and cost of capital. International literature emphasizes the importance of credit risk assessment both in traditional financing, such as bank loans, and in modern financing, such as venture capital or participatory financing.

The lack of concrete approaches to modern financing methods remains a scientific-methodological and research problem, making the development of these concepts in national practice impossible. National literature currently lacks clear and well-defined concepts regarding modern financing methods. Only a few modern financing methods—such as leasing, factoring, forfaiting, and venture capital financing—are detailed as concepts with some particularities. Theoretical approaches regarding other modern financing methods such as mezzanine financing, crowdfunding, syndication, endowment, and sustainable financing are very limited and general.

The author considers the development of new modern financing methods within the national banking financial system as imperative, a process that must be initiated by presenting these concepts and their advantages, and subsequently promoting them in national financial practice. This would expand opportunities for accessing financial resources under favorable conditions to finance promising innovative projects with a positive impact on the long-term development of a sustainable economic system.

Chapter 2. Global trends in modern financing methods and opportunities for in the Republic of Moldova is dedicated to a detailed study of the main trends in factoring, crowdfunding, venture capital financing, and sustainable financing within developed economies and successful practices.

The section on the evolution of international factoring analyzes global and European trends, highlighting its role in business development and the associated benefits. A separate paragraph is devoted to venture capital financing, emphasizing the opportunities it offers for supporting innovative projects, especially start-ups. In the context of the digitalization of the economy, a special section is allocated to crowdfunding, highlighting the advantages it offers, particularly to the small and medium-sized enterprise (SME) sector. Special attention is given to sustainable financing, which has become a key factor in achieving the UN's Sustainable Development Goals (SDGs) and ensuring sustainable economic growth. This chapter also includes a comparative analysis between European practices and those in the Republic of Moldova regarding the specifics of modern financing methods, as well as identifying the limitations of their development at the national level.

Factoring is widely practiced in developed countries. The most popular factoring markets are in developed states such as the USA, France, the United Kingdom, China, Italy, Germany, Spain, and Belgium. Beneficiaries of factoring mainly come from the food industry, textiles, trade, and telecommunications service providers [8, p.34].

While traditional factoring continues to be a widely used financing solution, new international trends show the expansion of factoring into innovative forms such as reverse factoring and ESG factoring. These forms address the increasingly complex needs of supply chains and sustainability-oriented companies.

Recent trends indicate the expansion of factoring into value chain efficiency solutions, known as reverse factoring. As companies seek to optimize their cash flow and working capital management, they increasingly turn to reverse factoring. This financial arrangement allows companies to extend payment terms to suppliers while ensuring that suppliers receive early payments with a discount.

Reverse factoring has been widely used in recent years by factoring companies in EU countries, the USA, as well as in Romania, Belarus, and Ukraine for financing SMEs in the trade, food industry, electronics, and ICT sectors. Essentially, reverse factoring can be described as a financing method involving three parties: suppliers, buyers, and the financier (credit institution), using an electronic platform through which supplier financing, invoice prepayment, buyer payment, and invoice management are ensured. Reverse factoring differs from classic factoring in that the initiator is the buyer, not the supplier as in traditional factoring.

In today's global context, where sustainability has become a key factor in evaluating financial performance, financial institutions are starting to recalibrate their offerings to support companies with a strong commitment to social and environmental responsibility. A relevant example is the "Impact Factor" initiative launched in 2023 by BNP Paribas for corporate clients in France, which involves integrating ESG commitments into supply chain evaluation. This solution provides coherent support to enterprises along the entire financing chain, encouraging sustainable corporate behaviors [17].

ESG factoring offers a financial solution that combines the traditional advantages of factoring (such as improved cash flow and receivables management) with additional benefits for companies promoting social and environmental responsibility. Companies implementing high ESG standards may benefit from favorable financial conditions such as lower interest rates or reduced fees. Furthermore, factoring providers can offer detailed reports reflecting both financial performance and the ESG impact of transactions. This innovative financing method contributes not only to supporting companies' current activities but also to promoting projects aligned with achieving the 2030 SDGs. Moreover, ESG factoring becomes a strategic tool for supporting both SMEs and large corporations in their efforts to adapt to new market and regulatory requirements. ESG factoring stands out from the classic model by directing capital toward companies that meet high environmental, social responsibility, and governance standards, thereby creating long-term value.

Analysis of trends over the past two decades shows an average annual growth rate of 8.4%, with the highest recorded in 2022 at 18.33%. In 2023, the international factoring volume increased by only 3.6% compared to 2022, reaching a volume of EUR 3,791 billion [13], after the devastating impact of COVID-19 in 2020, when a decrease of 6.5% was recorded. However, in 2021, the sector already saw a growth of almost 13.5%. Analyzing the trends over the last 20 years, we can observe an average growth rate of 8.4%, with the peak growth recorded in 2022 at 18.33%. The top countries, concentrating around 88% of international factoring volume, include: Spain (19%), Taiwan (13%), Italy (14%), China (10%), Singapore (5%), Hong Kong (5%), Germany (10%), the United Kingdom (7%), and Poland (4%) [13]. In this context, it is worth noting that the Republic of Moldova ranks last, with a factoring volume of only EUR 9 million, compared to our neighbors, Ukraine (EUR 592 million in 2023) and Romania (EUR 8,660 million).

The sectors that relied on factoring financing have maintained similar trends over the past 10 years. In 2022, the main beneficiaries of factoring were: manufacturing (45%), including goods and services production, textile industry, machinery, and equipment; trade and goods distribution (13%); construction (9%); services provision (8%); transportation and communications (7%); and other sectors (15%). At the international level, factoring has experienced significant expansion, becoming an essential tool for working capital financing, especially for small and medium-sized enterprises (SMEs). In the European Union, the development of this sector has been supported by a harmonized legislative framework, competitive costs, and advanced digitalization, facilitating quick and efficient access to financing for SMEs. In the Republic of Moldova, although factoring is recognized as a modern financing method, the market remains in an early stage of development.

Table 1. Comparative analysis of the development of factoring in the European Union and the Republic of Moldova

Criteriu	**UE**	**Republic of Moldova**
Regulation	Regulated by European directives and specific national legislation.	Regulated by the Civil Code of the Republic of Moldova
Market Development	Mature market, with high transaction volumes. In 2023, the factoring volume in the EU was over EUR 2.4 trillion	Emerging market, with low volume. According to the NBM, factoring is used marginally compared to other forms of financing.
Types of Factoring	Recourse and non-recourse, domestic and international, open and confidential. Reverse factoring is increasingly popular.	Predominantly recourse and internal factoring. Reverse and confidential factoring are rarely used.
Interest and Costs	Interest rates are lower due to the competitive market and high liquidity. Costs range from 0.5% - 3% per transaction.	Higher costs, with interest rates that can reach 5-10%, due to higher perceived risks and less developed market.
Digitalization	Advanced fintech platforms, blockchain and AI for risk analysis.	Early stage of digitalization, high dependence on traditional processes.
Accessibility for SMEs	Access facilitated by legislation and competition between factoring providers.	Limited access due to strict requirements imposed by banks and high costs.

Source: *Prepared by the author based on [13; 17]*

In the Republic of Moldova, factoring is in a growth phase but faces limitations related to accessibility, costs, and digitalization. However, there are development opportunities through adaptation to international practices and improvement of the regulatory framework.

Although the Republic of Moldova does not have a specific law dedicated to factoring, the existing legal framework within the Civil Code provides a foundation for conducting such operations. The local factoring market is still developing, offering opportunities for growth and diversification of the services provided. The costs associated with factoring services vary depending on several factors, including the type of factoring (with or without recourse), the time remaining until invoice maturity, the transaction volume, and the risk associated with debtors. In the EU, factoring costs are influenced by the competitive market environment and regional economic variations.

Factoring remains relatively modest in popularity in the Republic of Moldova, as confirmed by reports from the International Factoring Association and studies based on evaluation questionnaires. According to a survey conducted by the author on access to financing — carried out on a sample of 40 companies in the Republic of Moldova (fields: trade (13), transport and logistics (4), production (10), agriculture (5), services (5), healthcare/pharmaceuticals (2), construction (1)) — it was found that factoring is not among the financing methods used by the participating businesses. Their preferences predominantly lean towards bank loans, used by 40 respondents (97.5%), and own financial resources, indicated by 34 respondents (85%).

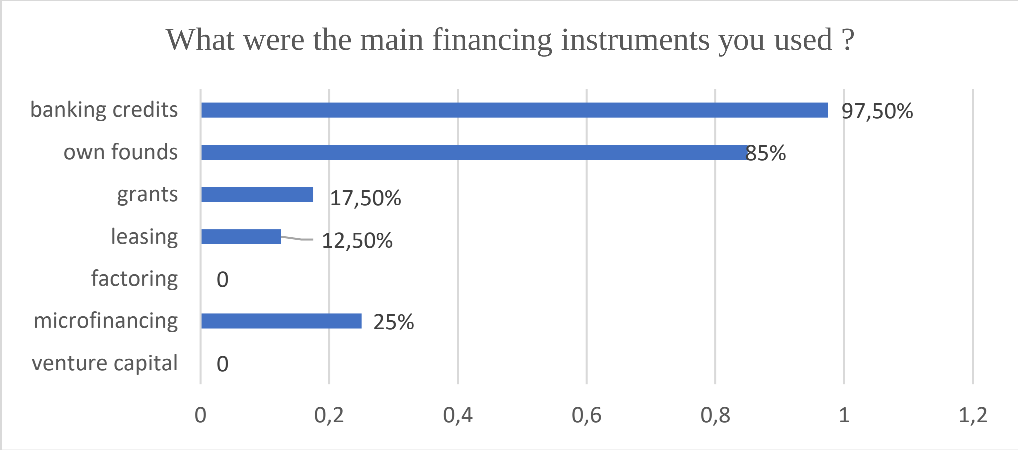

Figure 3. Share of respondents by use of financing instruments accessed by respondents (economic entities)

Source: *Developed by the author based on the analysis of Questionnaires on access to financing and the use of financing instruments other than bank credit in the Republic of Moldova.*

At the same time, some companies also resorted to other sources of financing, such as microfinancing provided by non-bank lending organizations (NCOs) — mentioned by 10 respondents (25%), followed by grants and subsidies — mentioned by 7 respondents (17.5%), and financial leasing, indicated by 5 respondents (12.5%). Accessing resources through methods such as factoring, crowdfunding, or venture capital financing was not mentioned by any of the respondents.

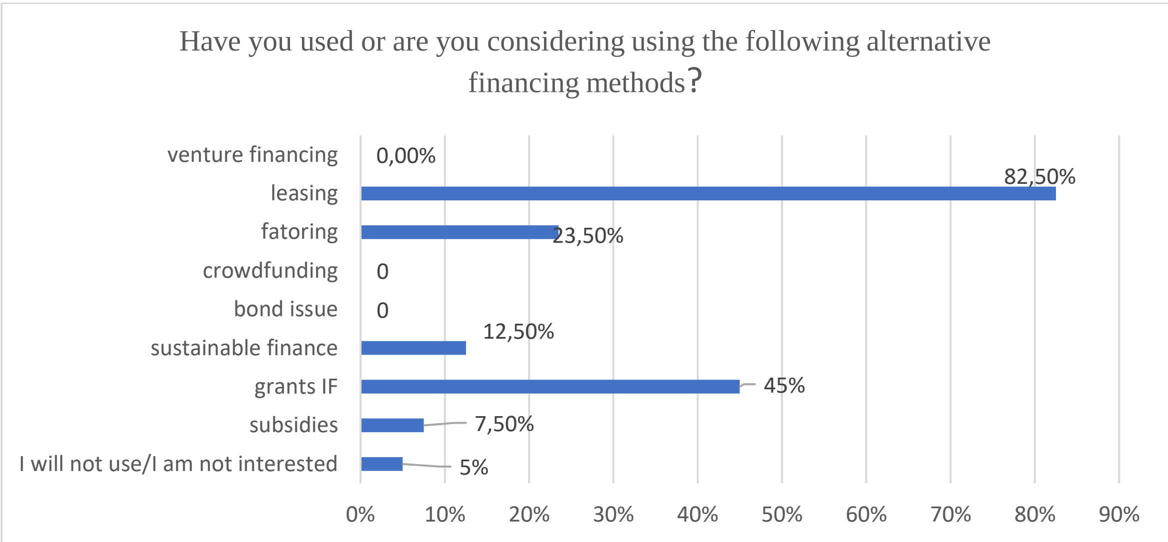

Figure 4. Share of respondents by preferences regarding the use of financing methods other than bank credit

Source: *Developed by the author based on the Questionnaires on access to financing and the use of financing instruments other than bank credit in the Republic of Moldova.*

The analysis of the data collected through the questionnaire developed by the author reveals that factoring ranks third (35% — 14 respondents out of 40) among modern financing instruments perceived as accessible in the context of the Republic of Moldova. It is preceded by financial leasing and grants offered by international financial institutions, thus highlighting a growing interest in factoring as an alternative to traditional bank credit in financing economic activities (fig. 4). Based on the survey conducted, it cannot be said that factoring is unknown as a financing method among national entities; rather, there is a lack of promotional messages regarding it on the financial market.

Venture capital financing is a modern method widely practiced in developed countries for funding start-ups, business development, or buyouts during ownership restructuring. Venture capital has contributed to the success of well-known companies such as Microsoft, Intel, Apple Computer, Lotus, Solectron, Brookstone, GenenTech, Au Bon Pain, Federal Express, among others.

The distinctive features of venture capital financing for small businesses are as follows:

- ✓ funds are provided without the requirement of repayment by a fixed due date;
- ✓ they have a fixed term and do not bear interest;
- ✓ they are granted to small private enterprises without collateral or deposit requirements;
- ✓ the purposes and conditions for the allocation of funds by venture capital firms differ from those of traditional investors.

Risk investments in small and medium-sized enterprises act as a catalyst, attracting other types of investments once initial ones have proven profitable through increased sales revenues, profitability, market expansion, etc. OECD analyses highlight the development of the venture capital industry as "an important framework condition for stimulating innovative entrepreneurship" [2, p.80]. Practice has shown that venture capital funds significantly contribute to improving governance and professionalization within funded start-ups. They may also impose direct control over management systems and often require changes in top management. Studies emphasize the concentration of these funds in fields like IT, biotechnology, medical technologies, etc.

For newly created companies or businesses with a limited operational history (under two years), venture capital financing is becoming increasingly popular — even essential — for raising capital, particularly when they lack access to capital markets, bank loans, or other financing instruments. The main disadvantage is that "investors typically acquire shares or equity in the company, thus gaining influence over the decision-making processes of these entities" [5, p.29].

Generally, within the venture capital financing mechanism, the investor contributes to the company's share capital with the exact amount needed to secure their equity stake, while the remaining resources are provided as an unsecured long-term loan with a preferential interest rate. During the financing process, there is the possibility of converting the loan into shares or bonds. Since the risks in this segment are significantly higher than with traditional instruments, a venture capitalist usually bets on several dozen companies simultaneously.

Essentially, venture capital financing is a new approach, initially developed in the USA and successfully adopted in recent years by European countries. For the Republic of Moldova, as for other Eastern European countries, this financing method remains relatively unknown and underdeveloped. Research into venture capital has identified various incentives promoted by governments to stimulate such financing. "Among the incentives offered (based on well-defined criteria related to the age and size of companies, and through sectoral exclusions to target entrepreneurial firms), and subject to transparent annual monitoring to continually assess fiscal costs, are:

- ✓ advance tax credits;
- ✓ deferral of capital gains tax upon reinvestment;
- ✓ exemptions from capital gains taxes realized;
- ✓ concessions for individual investors — business angels" [5, p.136].

Start-up financing varies significantly from country to country, depending on the economic ecosystem, government support, investment culture, and access to capital markets. Successful models from the USA, China, the UK, and Israel demonstrate how each state leverages local resources to stimulate innovation and economic development. Studying these practices provides valuable lessons for building sustainable and dynamic financing ecosystems. The United States represents the most developed start-up ecosystem, characterized by tight integration between investors, universities, and research centers. A favorable legislative framework and the existence of large venture capital funds continuously encourage the emergence of global innovative companies like Google and Tesla. There is a strong emphasis on collaboration between research and the private sector.

International practice highlights venture capital financing as one of the most advantageous and efficient forms of support for small and medium-sized enterprises entering the market or for start-ups. Throughout 2023, challenging economic conditions and increasing investor pressure led start-ups to adjust their growth strategies, focusing more on building sustainable trajectories toward profitability. In the fourth quarter of 2023, venture capital investors intensified demands on their portfolio companies to optimize operational efficiency and adapt their business models to prioritize profitability. Meanwhile, it became increasingly evident that some start-ups lacked the necessary resources to survive under the current economic climate.

Sectors that had experienced rapid expansion during the pandemic were severely impacted by sudden economic shifts, including high inflation and sharply rising interest rates. Venture capital investments in America and Asia declined for the fourth consecutive quarter in 2023, and Europe also recorded its third consecutive quarter of declining investments. The Americas (North and South America) have seen notable performances, particularly in the United States. Noteworthy here are the large transactions (over USD 1 billion) in the U.S., achieved by companies such as Lyft, Grail Technologies, Compass, Faraday Future, and Magic Leap. It is worth noting that the American venture capital market remains one of the most advanced in terms of innovation in information technologies.

While internationally venture capital is a key driver of innovation and start-up development, in the Republic of Moldova, this type of financing remains very limited.

The COVID-19 pandemic clearly demonstrated the necessity of using information technologies both in managing economic entities and in securing alternative funding sources for the implementation and development of new projects. Thus, crowdfunding emerged as the most accessible financing method during the pandemic crisis and online isolation periods. Crowdfunding is based on a platform that acts as an intermediary where donors and fund seekers meet, along with payment means (including electronic money) for financing projects. Platform organizers charge project authors commissions ranging from 5% to 15% of the total funds raised. The recent growth of the crowdfunding market can be attributed to several factors, including the increasing acceptance of crowdfunding as a legitimate fundraising method, greater accessibility of crowdfunding platforms, and the rise of social networks that allow campaign creators to reach wider audiences.

Moreover, the COVID-19 pandemic accelerated the trend of online fundraising as more people turned to crowdfunding to support small businesses and independent creators affected by lockdowns and economic crises. Many crowdfunding initiatives use social networks as a communication tool, allowing traffic tracking towards websites. Thus, a company can freely promote an idea on social networks, a factor expected to boost the global crowdfunding market during the forecast period. Rapid development of crowdfunding in many countries is supported by increased governmental attention and support. Today, crowdfunding is recognized as a legal form of commercial relationship in at least twenty developed countries. In the West, regulatory frameworks have been created to allow entrepreneurs to independently raise large-scale funds. Recent developments in the global economy have created favorable conditions for the development of new investment attraction instruments. These include decision-making platforms based on crowd technologies, crowdlending, and crowdinvesting.

The new financial instruments offer several advantages, such as:

- ✓ the possibility of attracting resources from a wide range of individuals, including those without knowledge or experience in financial markets;
- ✓ low transaction costs;
- ✓ speed of transactions;
- ✓ simplification of regulatory frameworks governing investment resources [6].

Risks arising from unprofessional investor activities have prompted most countries to introduce crowdfunding regulations. International practice sets certain limits on the amounts invested per project and per investor. There are numerous successful crowdfunding platforms worldwide, securing funding for projects ranging from cultural and artistic endeavors to start-up business financing. Crowdfunding platforms offer analytical management of investor flows and investment projects through electronic wallets. Each platform member, whether an investor or a project leader, has a dedicated electronic wallet that allows interaction (investment, fund reception, etc.) with other members within the authorized platform operations. Unlike traditional financing, crowdfunding offers small companies at the beginning of their journey a few additional chances of success. Moreover, crowdfunding supports companies with ambitious and innovative projects.

Currently, in countries like the Republic of Moldova, crowdfunding as a new financing practice faces poorly adapted regulation, imposing disproportionate obligations compared to the nature of platform activities. The difficulty in adopting an appropriate regulatory framework constitutes a real barrier to the development of crowdfunding. In countries where crowdfunding is well supported and regulated, it has become a major success factor for economic development. A comparative analysis of crowdfunding development between European countries and the Republic of Moldova is presented in Table 2.

Table 2.

Comparative analysis of European and Moldovan crowdfunding

Criteria	European Union	Republic of Moldova
Regulation	Clear and robust regulation through Regulation (EU) 2020/1503 on European crowdfunding service providers for businesses;	General regulation
Types of Crowdfunding	Regulation (EU) 2022/2118 – management of individual loan portfolios by crowdfunding service providers, specifying the elements of the credit risk assessment method, the information on each individual portfolio to be communicated to investors, as well as the necessary policies and procedures regarding reserve funds	Law No. 181/2023 on crowdfunding services
Investor Protection	Regulation (EU) 2022/2119 – standards for the key investor information sheet	
Startup Funding	Donations, rewards, loans (P2P lending), capital (equity)	Predominantly donations and rewards, loans (P2P lending) and poorly developed equity
Challenges	Strong regulations for transparency and safety	Lack of clear investor protection mechanisms
Opportunities	Important tool for startups and SMEs, supported by public policies	Difficult access to alternative financing, dependence on traditional financing

Source: *Prepared by the author based on data from the European Commission and the National Monetary Fund. Available: https://finance.ec.europa.eu/capital-markets-union-and-financial-markets/financial-markets/crowdfunding_en și https://www.cnpf.md/ro/finantare-participativa-6522.html*

Internationally, there are numerous crowdfunding platforms that have developed successfully, managing to provide financing for projects in various fields, from cultural-artistic to start-up financing projects. Crowdfunding platforms ensure analytical management of the flow of investors and investment projects through electronic wallets. Each member of the platform, investor or project leader has a dedicated electronic wallet, which allows him to interact (invest, obtain funds, etc.) with other members of the platform within the framework of authorized operations on crowdfunding platforms. Unlike classic financing, crowdfunding financing offers some chances of success to a small company at the beginning of its journey. Moreover, crowdfunding supports companies with ambitious and innovative projects. Looking ahead, the crowdfunding market is expected to continue its positive growth trajectory. This growth will be driven by factors such as the increasing availability of mobile crowdfunding applications, the rise of impact investments, which aim to support socially responsible projects. In addition, as crowdfunding platforms become more stable, we can see a consolidation of the market, with larger platforms acquiring smaller ones to increase their market share.

Globally, another financing modality that is an urgent priority for all financial services, driven by the goal of net zero carbon emissions by 2050, is sustainable finance.

Sustainable finance encourages transparency and long-term thinking in investments that address environmental objectives and include all the sustainable development criteria identified by the UN Sustainable Development Goals (SDGs). By integrating sustainability principles into financial decision-making, sustainable finance contributes to a greener and more resilient economy. It supports initiatives that aim to reduce carbon emissions, promote renewable energy, improve resource efficiency and conserve biodiversity. By directing capital towards green projects, sustainable finance helps combat climate change and protect ecosystems.

Unlike traditional finance that directs savings towards the most profitable projects without considering environmental aspects, sustainable finance supports projects that are socially and environmentally responsible and promotes the development of a sustainable, efficient and inclusive economic system. Essentially, drawing on European practice in particular, the author presents sustainable finance as a financing method that supports projects and businesses with a positive impact on the environment and society in general, respecting the principles of corporate governance. Unlike traditional methods that focus mainly on short-term profitability, sustainable finance integrates ESG (environmental, social and corporate governance) sustainability criteria, which allow the assessment of both the economic performance of a project and its medium and long-term impact on society and the environment. The fundamental objective of sustainable finance aims to create and develop a more balanced economy, by redirecting capital to sectors that support the ecological transition, such as renewable energies, energy efficiency, green transport, recycling or sustainable resource management.

Sustainable finance offers a series of benefits for both financial and non-financial results, many of which are presented in the UN Sustainable Development Goals. Similarly, sustainable finance entails a range of economic benefits achieved through incentives, such as providing education and decent work opportunities for all, as well as building resilient infrastructure and promoting inclusive industrialization. Sustainable finance also delivers essential benefits to our planet, as it focuses on climate action and climate change mitigation, as well as conserving biodiversity and promoting sustainability across the natural ecosystem. In addition, sustainable finance encourages innovation by directing capital towards eco-innovative projects that address global challenges. By supporting these initiatives, responsible finance promotes economic growth that is both sustainable and dynamic and future-oriented. The transition to a low-carbon economy requires significant investments, which can only be financed through a deep commitment from the private sector. Incorporating environmental, social and governance (ESG) factors into private investments transforms an internal risk management strategy into an engine of innovation and new possibilities that provide long-term value for the company and society. The areas supported by sustainable finance are energy efficiency and renewable energy projects, waste and natural resource management, and biodiversity protection (fig. 2). Sustainable finance can contribute to the fight against biodiversity loss by financing the conservation and restoration of natural habitats.

Sustainable finance has been a major concern of the European Union in recent times and is conceived in the long term, being interpreted as a type of financing that supports the sustainable development of the economy, while reducing pressures on the environment and taking into account social and governance aspects. Thus, the European Union (EU) adopted in June 2020 a legal framework aimed at facilitating sustainable investments. This framework, known as the "EU Taxonomy", is the cornerstone of the EU Action Plan for Sustainable Finance.

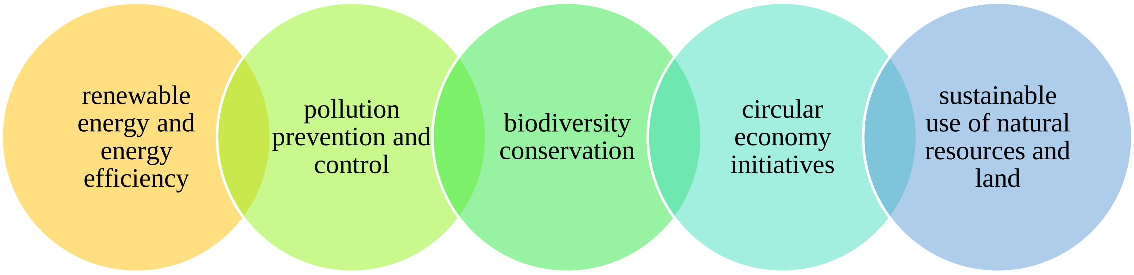

Figure 5. Areas promoted by sustainable financing
Source: Developed by the author

The sustainable finance market is growing rapidly in response to the climate emergency. Sustainable finance is a subset of the general financial market that provides a structured way to channel capital to economic activities and projects that deliver sustainable outcomes. Importantly, the sustainable finance market contributes both directly and indirectly to the progress of the United Nations Sustainable Development Goals (SDGs), which face an annual financing gap of US$2-4 trillion. The COVID-19 crisis has given new impetus to the environmental, social and governance (ESG) and Net Zero agendas, which is accelerating the demand for sustainable finance. Global issuance of sustainable finance products totaled US$1,537.9 billion in 2022, up more than 10-fold from 2016, when global sustainable finance was US$151.4 billion. The total volume of green bonds issued globally exceeded USD 480 billion in 2022 [15]. Europe dominated the sustainable finance market in 2022, accounting for over 39.0% of revenue. European countries have introduced various policies and regulations requiring financial institutions to incorporate sustainability (ESG) criteria into their investment decisions. The European Union's Action Plan on Sustainable Finance has played a crucial role in stimulating the growth of sustainable finance by setting clear guidelines and standards for sustainable investment products. Globally, the value of sustainable investment products, including bonds and funds, reached more than USD 700 billion in 2023, up 7% year-on-year [14]. Sustainable bonds were the main driver of growth in sustainable capital markets products. Issuance increased to USD 872 billion in 2023. USD, an increase of 3% compared to 2022, bringing the cumulative market value since 2018 to more than USD 4 trillion. The largest share in the total volume of sustainable bond issuances belongs to green bonds, which hold a share of over 60% of the issued volume, with social bonds accounting for over 18%.

In 2023, sustainable bonds reached a volume of US$870 billion, 3% more than the 2022 figure of US$843 billion, increasing by almost 4 times compared to 2018 (Figure 3). Over 65% of this came from the "green theme", which added US$587.3 billion, reflecting a 15% increase compared to 2022

[15]. Latin America is the only region where sustainability bonds constitute the largest share of the market, reaching 47% by the end of 2023. It is also the only region that has consistently increased its volume of sustainability bonds over the past four years.

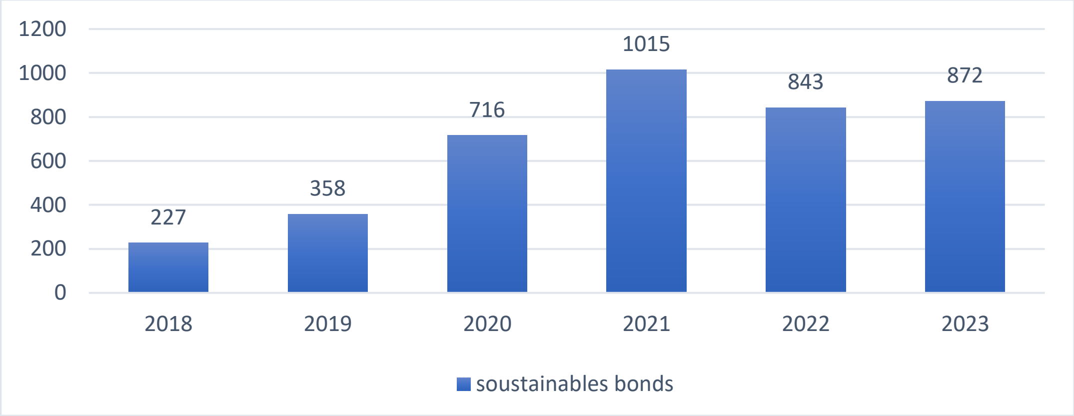

Figure 6. Market dynamics of sustainable bonds issued in the period 2018-2023

Source: *Developed by the author based on data* https://www.climatebonds.net/market/data/

By directing investments towards renewable energy projects, it promotes the ecological transition towards a more environmentally friendly economy. In addition, green finance can stimulate innovation in the green economy. Providing funds for research and development of green technologies can encourage the development of innovative green solutions. As the sustainable finance market moves from its initial period of rapid growth to a phase of maturity with more sustainability (ESG) disclosure and control mandates, it has become important for issuers to overcome the risks of greenwashing, also known as environmental misinformation, by actively increasing their sustainability credibility.

Looking ahead, we can expect an increase in bank financing for green projects (with a focus on energy-efficient technologies) or those related to the integration of sustainability criteria (ESG), through margin increase/decrease mechanisms depending on ESG key performance indicators and with ESG-specific reporting and information obligations imposed on borrowers. In this context, environmental, social and governance issues will progress, and the urgency to reduce emissions and mitigate climate risks will remain a strong source of demand for sustainable finance. This can help promote innovation and facilitate the commercialization of emerging decarbonization technologies.

The European Union has built a solid and dedicated regulatory framework for sustainable finance, aiming to channel private capital toward sustainable economic activities and efficiently manage risks associated with climate change, social issues, and governance. This framework supports the development of a transparent and coherent financial market aligned with the objectives of the European Green Deal, thus contributing to the transition towards a climate-neutral economy by 2050. The European Union benefits from a well-regulated framework, accessibility to sustainable financing, and a wide range of opportunities for the implementation of green and social projects, with the funding access process being relatively clear and efficient. The Republic of Moldova is at an early stage regarding the development and regulation of sustainable finance, and access to such funding remains limited. However, there is significant potential for the development of this sector, particularly in the fields of renewable energy and sustainable agriculture.

The results of the questionnaire conducted by the author on access to finance reveal that sustainable finance is known only at an early stage. According to the data presented in Figure 2.6, only 5 respondents (12.5%) indicated sustainable finance as a preference, suggesting a relatively low level of interest. This situation is mainly explained by the lack of information and the absence of financial education campaigns, aspects highlighted by 100% of respondents. Other barriers and obstacles mentioned by the respondents include:

- *Lack of a regulatory framework* – reported by 3 respondents (7.5%), suggesting that, although some modern financing methods are known, there is a need for a clearer legislative framework and additional regulations to facilitate access to these instruments.
- *Higher costs compared to bank credit* – mentioned by 3 respondents (7.5%), indicating that, for most entities, the perceived costs do not represent a major obstacle to using alternative financing sources.

The survey conducted by the author reflects a considerable openness among entities toward using financing methods other than bank loans: 47.5% (19 respondents) answered "Probably yes," while 20% (8 respondents) answered "Definitely yes."

Following the analysis of the information collected through the survey, it is found that most respondents are open to exploring other forms of financing, although not all are fully confident in this decision. This attitude reflects both the desire to diversify funding sources and the uncertainty regarding the accessibility and understanding of new financial instruments. As for the measures recommended by respondents to facilitate access to alternative financing:

- *Financial education campaigns* were supported by 100% of respondents, confirming their essential role in market development.
- *Offering tax incentives* was supported by 10 respondents (25%), suggesting that tax reductions could encourage the use of alternative financial instruments.
- *Creating a clear regulatory framework* was recommended by 7 respondents (17.5%).
- *Government support and increased market transparency* were each mentioned by 3 respondents (7.5%).

In this context, financial education represents a fundamental condition for overcoming existing barriers and for encouraging the use of alternative financing methods among economic entities in the Republic of Moldova, including sustainable finance.

As the Republic of Moldova develops its legislative and educational framework in the field of sustainability, it is expected that access to sustainable finance will become broader and better regulated. By directing investments towards renewable energy projects, the ecological transition to a more environmentally friendly economy will be promoted. Moreover, green financing can stimulate innovation in the green economy. By providing funds for the research and development of green technologies, it can encourage the emergence of innovative ecological solutions.

For the future, an increase in bank financing for green projects (with a focus on energy-efficient technologies) or for projects integrating ESG criteria can be anticipated, through mechanisms of margin increase/decrease based on key ESG performance indicators, along with specific ESG reporting and disclosure obligations placed on debtors. In this context, environmental, social, and governance aspects will advance, and the urgency to reduce emissions and mitigate climate risks will remain a strong source of demand for sustainable financing. This can contribute to promoting innovation and facilitating the commercialization of emerging decarbonization technologies.

Chapter III Directions and prospects for the development of modern financing modalities within the national financial system addresses new directions for the promotion, integration and development of modern financing modalities at the national level.

The Republic of Moldova has a constrained economy, marked by serious structural deficiencies, including poor governance, limited institutional capacity and an uneven business environment. The small size of the market, limited exports and the lack of enabling infrastructure have limited European trade integration to date. Despite some improvements, ongoing deficiencies in the rule of law and the business environment still impact the banking sector and discourage investment. Together with the support of European institutions, the World Bank and the International Monetary Fund, reforms in the financial sector and the business environment continue, anchored by the approximation of EU standards.

From the analyses carried out and those presented in the paper, it can be noted that the financing offer is mostly limited to bank loans, financial leasing and grants offered within the framework of financing projects. The analyses carried out on the trends of the financial-banking market reflect an obvious monopoly of the financial services provided by banks. The main financing method for national entrepreneurship is the traditional one through bank loans, other financing methods being very limited in share, we mention here factoring, financial leasing and credit crowdfunding. Unfortunately, other financing methods, such as venture capital financing, mezzanine financing and, more recently, sustainable financing, are not found on the national financial products market. The microfinance sector is limited in the spectrum of services provided, even if the initial purpose of the OCNs initially aimed to support the small and medium-sized sector. The share of loans granted to this sector is insignificant, these being oriented towards short- and medium-term consumer lending.

An important aspect of the financing process is the assessment of the borrower's creditworthiness by credit institutions. When assessing the borrower's creditworthiness, each credit institution, following the EBA recommendations, develops its own evaluation models using dimensional econometric modeling. To derive a particular model, banks use the linear regression model or the Logit/probit model.

Based on multidimensional econometric modeling, the author developed a real model that allows the identification of indirect meanings, hidden in the collected information and data, necessary for a correct and efficient forecast and simulation. Econometric modeling gives uncertainty a central role in financial theory, as well as its subsequent application in an empirical manner.

The model was derived based on multiple linear regression, with the respective general formula:

$$Y_I = \alpha + \beta_1 X_{i1} + \beta_2 X_{i2} +_{\dots} + \beta_k X_{ik} + \varepsilon_i \quad (3.1),$$

where:

Yi – the dependent variable of the research, namely the credit scoring score;

x1, x2 ,..., xp – independent factorial variables;

α, βi – unknown parameters;

– the variable describing the specification error.

At the same time, the model can also be presented in the form of a system with n equations or in matrix form:

$$Y = X \cdot \beta + \varepsilon \quad (3.2)$$

Initially, for the estimation of the model, 14 factorial variables and one outcome variable were included. Subsequently, after excluding insignificant variables, the following indicators remained included in the model:

- y – credit scoring score;
- X1 – autonomy coefficient (CA);
- X2 – general solvency ratio (GSR);
- X3 – long-term debt to permanent capital ratio (RCITLCperm);
- X4 – permanent capital self-financing ratio (RACperm);
- X5 – return on sales (RV);

• X6 – current liquidity ratio (LC).

To validate the results of multiple linear regression, initially the set of assumptions must be met, such as:

1. the relationship between the dependent variable and the independent variables is linear;
2. heteroscedasticity is ensured;
3. autocorrelation of errors;
4. the error term is normally distributed;
5. the multicollinearity hypothesis is issued.

If these assumptions are met, then the regression is known as a classic multiple regression model. The inferred model was obtained using the econometric analysis package EViews 8.0, respectively, eliminating insignificant estimators at each stage. Table 2 reflects the results of the inferred model. The regression equation has the following formula:

$$\boldsymbol{Y = 38.7948 + 7.0938\, x_1 + 3.2477\, x_2 + 5.2683\, x_3 - 16.1318\, x_4 + 20.0019\, x_5 + 2.58119\, x_6} \quad (3.3)$$

Based on the regression coefficient, the dependence between the independent variable X and the dependent variable Y is demonstrated, thus when the variable X changes by "n" units, the dependent variable Y changes by "beta" units, while the rest of the independent variables remain constant [3, p.154].

Table 3. Results of the linear multifactorial regression model using MCMMP

Dependent Variable: Y
Method: Least Squares
Sample (adjusted): 1 53
Included observations: 53 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	38.79483	3.376053	11.49118	0.0000***
X_1	7.093875	2.669955	2.656927	0.0108**
X_2	3.247660	1.086578	2.988888	0.0045***
X_3	5.268271	1.351706	3.897497	0.0003***
X_4	-16.13183	4.297348	-3.753905	0.0005***
X_5	20.00199	9.519287	2.101206	0.0411**
X_6	2.581196	1.062497	2.429369	0.0191**

R-squared	0.680489	Mean dependent var	59.16676
Adjusted R-squared	0.638814	S.D. dependent var	17.51078
S.E. of regression	10.52376	Akaike info criterion	7.667649
Sum squared resid	5094.480	Schwarz criterion	7.927876
Log likelihood	-196.1927	Hannan-Quinn criter.	7.767720
F-statistic	16.32835	Durbin-Watson stat	1.628457
Prob(F-statistic)	0.000000		

Notă: ***p < 0.01; **p < 0.05; *p < 0.1.

Source: estimated by the author with the support of EViews 8.0 software.

According to the data obtained, the Correlation Ratio (R) has a value of 0.8249, which demonstrates a strong connection between the scoring given and the six analyzed variables, taken as influencing factors. "The coefficient of determination is calculated based on the decomposition of the total dispersion into the dispersion of the observed values compared to the theoretical ones and the dispersion of the theoretical values compared to the mean" [3, p.155].

According to the results obtained, R-square has a value equal to 0.6805, which shows that 68.05% of the variation in the scoring value is influenced by the six independent variables taken into account and only 31.95% is determined by other factors that are not found in the respective model.

Another element that indicates the dependence between the scoring result and the variables taken into account is the Adjusted R-squared (Adjusted determination ratio), which highlights a "change in the determination ratio, in which the number of causal variables in the model is taken into account, in other words the number of control variables" [3, p.155].

In order to demonstrate the validity of the obtained model and its efficiency, it is necessary to test the autocorrelation between the variables taken into account, the normality of the distribution of random errors and their average using the respective statistical tests. The results obtained for the Fisher-Snedecor and LM tests and comparing the results obtained with the theoretical values of the given distributions, the 99% probability indicates that the errors are not autocorrelated. The Q-Statistic test assumes that for a null hypothesis there should be no autocorrelation. According to the results obtained, "the probability associated with the Q-Statistic test is lower than the significance level of 0.05, so the null hypothesis is accepted and there is no autocorrelation phenomenon" [3, p.157]

The model presented above allows the assessment of the creditworthiness of potential clients, legal entities - small and medium-sized enterprises, applicants for medium-term financing (3-5 years). This model has not been tested and cannot be applied to assess the creditworthiness of: savings and loan associations, non-bank credit organizations, local public administration authorities and agricultural enterprises with seasonal activities. In the process of assessing creditworthiness, in addition to the financial indicators that characterize the economic and financial activity of the potential debtor, other indicators will be analyzed and taken into account, such as: credit history according to credit bureau reports, relations with suppliers and the dynamics of sales revenue. The use of this model within financial institutions will allow for the correct and prudent estimation of the economic and financial situation of economic entities, which will certainly determine the minimization of financial risks and the avoidance of so-called "bad-paying" clients.

In the context in which global economic trends aim at the integration of sustainability factors (ESG) in the activity of companies and the assessment of ESG risks, as well as their integration into the financing decision-making process, the author proposes a model for non-financial evaluation of the debtor from the perspective of sustainability criteria (ESG). The basis for non-financial assessment is the European practice where the integration of ESG factors into the activity of credit institutions is applied starting with 2020. At the same time, environmental, social and governance criteria are integrated by the supervisory and regulatory bodies of European banks, in particular the European Banking Authority (EBA), the French Prudential Supervision and Resolution Authority (ACPR) and the European Central Bank (ECB).

To assess the sustainability of a potential corporate client, the author proposes a non-financial evaluation model based on sustainability criteria (ESG). ESG scores are calculated using data from the environmental practices, social responsibility initiatives and governance policies of the potential corporate borrower. An ESG score provides insights into how a company manages environmental challenges, such as carbon emissions and resource conservation. From a social perspective, they reflect a company's approach to employee rights, occupational health and safety, community commitment and customer satisfaction; from a governance perspective, they assess the company's management system, remuneration policy, shareholder rights and internal control system.

To assess the sustainability of the debtor, information/data from various sources are researched, such as: environmental, social and governance indicators reported by clients, specific indicators/analyses available from external sources (specialized research institutions), issuance documents, as well as other relevant public information (news, sanctions of supervisory and regulatory authorities, etc.) or reports, policies, documents published by supervisory and control institutions.

The assessment of a company's sustainability involves assessments based on the proposed model questionnaire and applied at the credit institution level. In the assessment process, the bank applies the exposure method based on an ESG score calculated and assigned according to the assessment questionnaire proposed by the author. The absence of any significant information on one of the ESG components may serve as a basis for the bank to assign the minimum score for the respective component. The algorithm for determining the ESG rating includes the following steps:

1. assessment of the basic aspects and assignment of scores for each of the three ESG components;
2. determining the weighted sum of the scores of the three components according to the weights indicated in table 4 and the score indicated in table 5.

The ESG score includes the individual scores of three components (environmental, social, governance) which are summed up in proportion to the weights indicated in table 5.

Within the analysis of the environmental component, the bank assesses the company's impact on the environment, the efforts made to minimize environmental damage and the optimal use of natural resources. In the process of analyzing the social component, the bank assesses the degree of social responsibility of the company both in relation to employees and to society.

Table 4. Weight of ESG components used in the rating assessment process

Compound	**share %**
Mediu	40
Social	40
Gouvernance	20

Source: *Developed by the author based on the practice of commercial banks in the EU area*

As part of the governance analysis, the bank assesses the company's decision-making system and disclosure of information regarding sustainability. In the assessment process, the bank will take into account the company's past data, as well as its current practice in relation to the environmental, social and governance component. In addition, the bank will consider the company's development plans/forecasts from the perspective of compliance with environmental standards, social responsibility and corporate governance approaches.

Table 5. Sustainability (ESG) rating assigned based on risk assessment

ESG rating	Definition	Score	Risc level
1	High level of compliance with ESG standards	10-7,4	Low
2	Medium level of compliance with ESG standards	7,4 – 5	Medium
3	Low level of compliance with ESG standards	< 5	High

Source: *Developed by the author*

The scores for the environmental, social and governance components are summed up based on the weights assigned to the components. The core ESG scores and sustainability assessments are assigned by the bank in accordance with a special rating scale presented in table 6. To obtain an ESG score, the bank will compare the weighted sum of the component scores with the ranges presented. The financing decision is a positive one in the context where the assessed risk level is within the low and medium range.

The eligibility criteria for classifying activities as sustainable reflect existing internationally recognized standards and practices. Three basic considerations are taken into account during the analysis phase of a transaction:

1) activity that contributes to the support, improvement and protection of the environment;

2) activity that favors social development in particular of marginalized target groups;

3) activity that contributes to a lower CO2 economy and/or to the Sustainable Development Goals established by the UN.

In managing credit risk, institutions must consider climate and environmental risks at all relevant stages of the financing process and monitor risks in their portfolios. More specifically, institutions are expected to form an opinion on how climate and environmental risks are linked to the borrower's default risk.

The practice of integrating sustainability factors (ESG) is at the implementation stage within national banking institutions, and the non-financial assessment model based on sustainability criteria (ESG) has been tested and implemented by one of the commercial banks for borrowers with large exposures, and will subsequently be applied to the assessment of the entire financing portfolio. In developed countries, sustainable financing holds a significant share in the loan portfolio granted by credit institutions. Unfortunately, in the Republic of Moldova, their share in some banks reaches a level of 2-3%, and for others this practice is uninteresting. In the sustainable financing process, it is necessary to initially assess whether the project for which financing is requested is sustainable, and then a financial analysis is carried out.

Unlike other European countries, the level of economic development of our country is much more limited. The practice of developed countries has once again demonstrated the significant role of the financial and banking sector in supporting and promoting sustainable economic development, by financing innovative projects with a positive impact on the environment. However, in our country, the financial and banking system is faced with a number of problems related to financial offers, which in turn slow down the development of the economic system, among which we list:

1. limitation of the banking system in long-term resources;
2. low level of capitalization;
3. increased investment risks;
4. increased price of financial resources.

Access to financial resources is limited by the market situation of financial products, as well as by their price, which, compared to other states, is much higher. High interest rates create real impediments to the expansion and development of businesses, which indirectly slows down the economic growth and development of the state. In order to limit the monopoly of banks and facilitate access to the financial products market, microfinance organizations were created, which since 2018, according to the amendment to the legislation, have been renamed non-bank lending organizations, whose initial purpose was to support the small and medium-sized sector, but, unfortunately, the latter in a proportion of 90% are oriented towards consumer lending. From the perspective of the Republic of Moldova's accession to the EU, it is necessary to adapt the regulatory and institutional framework to exclude financing constraints and provide new financial opportunities to economic entities. For the successful development of new financing methods, it is necessary to make efforts and take concrete measures to facilitate the development, along with lending, of other financing methods widely practiced in developed countries, including EU Member States.

As an alternative to financing the SME sector, in addition to classic factoring, with recourse, it is proposed to implement and develop reverse factoring within credit institutions. Essentially, the concept of reverse factoring, in the author's view, can be presented as a financing method involving three parties: suppliers, buyers and the financier (credit institution), using an electronic platform through which financing for suppliers, advance payment of invoices, payment for the buyer, as well as invoice management are ensured. Reverse factoring differs from classic factoring in that the initiator is the buyer and not the supplier, as in the case of traditional factoring. Compared to traditional factoring, reverse factoring is less expensive, with lower fees and interest rates and is considered less complicated. The reverse factoring financing process is carried out through an electronic platform created and managed by the financier (credit institution/bank).

As in other countries, the Republic of Moldova can call on the support of European (EBRD, EIB) and international institutions to integrate support teams for reforms in key areas, which can improve the achievement of transaction-related policy objectives, while advancing broader sectoral reforms. European practice in the field of sustainable finance is also timely to expand the reach of energy efficiency measures, while green city initiatives can catalyze actions at the municipal level, along with strengthening critical capacities. Despite the large potential of wind and solar energy, renewable energy sources remain underdeveloped (only 5%), in the absence of a regulatory framework for auctioning. The European institutions will continue to provide political support to remove obstacles to commercially viable projects in the renewable energy sector.

Since 2020, environmental, climate and governance criteria have started to be integrated by the supervisory and regulatory bodies of European banks, in particular by the European Central Bank (ECB), the French Prudential Supervision and Resolution Authority (ACPR) and the European Banking Authority (EBA). Environmental risks will be included in the capital requirements of banking institutions in the coming years. In addition, starting with 2022, banks and investment companies in the European space are obliged to be transparent to investors regarding the sustainability of their investments. The inclusion of environmental risks in banking regulations is a great novelty and contributes to significant change in both the field of risk management and the organization and business strategy of banks. Although the introduction of these risks may be perceived by banking institutions as certain constraints through the difficulty of implementation, as well as a possible increase in capital requirements, this fact can also constitute an opportunity.

National commercial banks must align their loan portfolios with EU objectives by integrating ESG criteria into their governance and risk structures. The new commitments of banks will aim to align their loan portfolios with sustainable development objectives. Banks will design and develop their own sustainable development programme. A programme assesses the technological changes needed in various sectors to achieve the climate objective, in relation to the technology currently used by the bank's clients, setting the direction for the application of their financing activities. The approach focuses on several high-emission sectors, including electricity, freight and passenger transport, residential mortgages and which can help the bank contribute to promoting a sustainable economy. In the coming years, national banks will need to significantly increase their focus on financing projects in the areas of: renewable energy, energy efficiency, green agriculture, green transport. To this end, it is proposed to include in the reporting framework of banks the indicator reflecting the share of green assets *GAR – Green asset ratio*, calculated as the share of the bank's green assets and its total assets. According to this indicator, banks will set themselves objectives regarding its annual increase by at least 5%, so that by 2030 the achieved level will be at least 20%.

From the perspective of integrating sustainability criteria, banks will be required to abandon financing projects with a negative impact on the environment. In this context, it is proposed that banks include the List of Exclusions as an annex to internal lending procedures, this being the starting point of sustainable financing. Entities whose activity will be found in the List of Exclusions will not benefit from financing. European banks that have already made long-term commitments to promoting sustainable finance can serve as a benchmark, such as Raiffesen Bank, Credit Agricole, BNP Parisbas, Societe Generale, HSBC, ING Bank. The financial and banking sector is playing an increasingly important role in the development of sustainable finance. Analyses in this area confirm that sustainable finance has a real positive impact on the environment and the economic system by encouraging responsible investments, but in order to truly achieve the objectives of sustainable finance, it is essential to:

- ✓ support sustainable finance projects, including those in the field of energy efficiency, organic agriculture, bio-products, ecological transport, biotechnology, with a positive impact on environmental protection;
- ✓ blocking projects with high energy consumption, including those with high carbon emissions or that harm the ecosystem by stopping their financing;
- ✓ financing facilities for sustainable projects through incentives that include: interest rate reductions (30% lower), credit facilities by including grace periods for financing; tax exemptions, including zero tax on profits reinvested in such projects;
- ✓ financing several ecological impact projects;
- ✓ creating a common framework with clear rules and objectives for different actors, aimed at integrating sustainability criteria (ESG), transparency of funds accessible to all;
- ✓ eliminating the risk of greenwashing as a marketing strategy, which provides an eco-responsible image to a project that does not meet sustainability criteria.

In this context, promoting and developing sustainable financing through financing instruments, such as: green loans, green bonds, sustainable bonds, is an obvious and imperative step. For business development, banks and financial markets already play a crucial role in financing their investments with social and environmental impact. In order to ensure a sustainable future, both banking and non-banking institutions will play a rather important role in terms of their involvement by supporting innovative projects with low environmental impact. For the successful development of new financing methods in the Republic of Moldova, it is necessary to make efforts and take concrete measures to facilitate the development, along with lending, of other financing methods widely practiced in developed countries, including EU member states.

GENERAL CONCLUSIONS AND RECOMMENDATIONS

The research conducted within the framework of this doctoral thesis, based on the established objectives, allows the formulation of the following conclusions:

1. The study of the conceptual foundations of financing highlighted the interdependent and complementary relationship between the concepts of "source of financing" and "mode of financing," the latter representing the mechanism through which an entity's financing needs are covered. Following the theoretical groundwork, modern modes of financing were conceptually distinguished from traditional ones, being defined as a set of instruments and mechanisms characterized by flexibility, innovation, and adaptability. These involve new financial actors—private investors, digital platforms, specialized funds—and are designed to meet the financing needs of businesses in early development stages, thereby diversifying capital sources and reducing reliance on the traditional banking sector.
2. Analyses conducted in the area of access to financing revealed a direct correlation between the size of the enterprise and the perceived level of difficulty in obtaining financial resources. Large enterprises generally encounter fewer obstacles, benefiting from credibility, guarantees, and strong financial histories, while small and medium-sized enterprises (SMEs) are more exposed to financial and procedural constraints. Research in the context of the Republic of Moldova identified several restrictive factors—such as an inadequately adapted legislative framework, lack of guarantees, high costs, and low levels of financial literacy—that limit access to financing. Effectively managing these barriers could significantly contribute to the development of the local financial resource market and broaden enterprises' access to diverse financing instruments.
3. The research highlighted profound changes in the current financial paradigm, where modern theories emphasize the integration of social, environmental, and governance (ESG) dimensions into financial decisions. Modern financing modes are based on a sustainable vision of capital, in which economic efficiency is complemented by social and ecological responsibility, and investment decisions are increasingly aligned with the Sustainable Development Goals (SDGs).
4. A comparative analysis of international practice showed that, in developed economies, modern financing modes—such as factoring, venture capital, crowdfunding, and sustainable financing—are widely used and well regulated, supported by advanced digital infrastructures, clear regulatory frameworks, and public strategies. In the Republic of Moldova, these instruments are at an early development stage, limited by legislative constraints, the lack of a modern entrepreneurial culture, and restricted access to digital financial infrastructures.
5. Based on empirical research and legal framework analysis, it was found that the Republic of Moldova does not yet have a sufficiently prepared regulatory and institutional environment for the widespread adoption of modern financing modes. However, recent government initiatives aimed at digitalization, entrepreneurship development, and SME support create real opportunities for integrating these instruments into the national financial system, especially if accompanied by structural reforms and appropriate regulations.
6. The nascent development of modern financing modes in the Republic of Moldova—such as factoring, venture capital, crowdfunding, and sustainable financing—is driven by the absence of a well-structured and regulated financial market. Unlike developed economies, where government institutions actively create favorable conditions for financing access, institutional involvement remains limited in Moldova. In this context, it is imperative to strengthen the

legislative framework by aligning it with European standards, developing a medium-term national strategy for sustainable financing, and adopting economic policies that encourage the use of these modern instruments. Measures such as offering tax incentives, reducing financing costs, ensuring access to public funds, and facilitating public-private partnerships can create a favorable environment for developing these financial mechanisms. Their adoption is particularly relevant given the current context of European integration and the need to modernize the national economic system.

7. Credit risk assessment remains a topical issue in the context of modern financing, with the evaluation of a borrower's creditworthiness being a fundamental step in the financing process and essential for all financing methods. By applying a multidimensional econometric model and a non-financial analysis methodology, the risks associated with modern financing methods can be reduced. Thus, rigorous creditworthiness evaluation of debtors becomes crucial when granting financing through modern methods. This complex approach, which includes both financial indicators and ESG factors, contributes to reducing credit risk, increasing transparency, and strengthening the financial portfolios of credit institutions. The models proposed by the author can be used as practical tools in the decision-making processes of banks and investors.
8. The integration of sustainability (ESG) criteria has become a relevant practice across Europe, both among economic entities and credit institutions. The evaluation of borrowers' sustainability is applied by European credit institutions when approving financing for sustainable projects. In the Republic of Moldova, this practice is sufficiently developed and mainly applied within credit lines provided by international financial institutions such as the European Investment Bank (EIB) or the European Bank for Reconstruction and Development (EBRD). In this context, the author proposes a non-financial evaluation model based on sustainability (ESG) criteria, considering that national trends are increasingly geared towards achieving sustainable development goals, social responsibility, and environmental protection, with credit institutions becoming more actively involved.
9. The gradual adoption of modern financing modes by the financial system of the Republic of Moldova is a strategic direction necessary for achieving an open, competitive, and sustainable economy. Thus, a national strategy on sustainable financing should be adopted, legislation should be harmonized with the European acquis, green and participatory financial instruments should be promoted, and financial literacy among entrepreneurs should be supported. These measures will facilitate access to alternative financing, stimulate innovation, and contribute to transforming the national economic structure in line with European integration objectives.

The research results confirm that the development and integration of modern financing modes in the Republic of Moldova is not only a necessity dictated by the limitations of the current financial system but also a strategic opportunity to adapt the national economy to global and European market demands. In this context, the elaboration of coherent policies, the development of financial infrastructure, and the broad promotion of modern financing modes become essential for strengthening an inclusive, flexible, innovation-friendly, and sustainability-aligned financial system. The research also opens relevant perspectives for further studies on integrated risk assessment (financial and ESG), sustainable investment efficiency, and the design of financial models tailored to emerging economies.

The major scientific contribution consists in the theoretical and methodological substantiation of the role of modern financing modes within the economic sector and in setting priority directions for their development within the national financial system, aiming to promote a sustainable economic system adapted to new international and regional conditions.

The synthesis of the conducted research allows the identification of a set of essential strategic objectives for the national financial system which, once implemented, would significantly contribute to creating a competitive business environment and ensuring sustainable economic growth. These objectives include:

1. ***Integration of the national financial system within the European Union:*** This objective aims at aligning the country's financial regulations, institutions, and practices with EU standards and regulations to facilitate access to international financial markets, encourage capital flows, and support long-term economic development.
2. ***Launching and promoting financial education campaigns for the business environment*****:** Implementing educational campaigns aimed at improving the financial knowledge of entrepreneurs and business managers. This would include developing both basic and advanced financial skills, essential for making strategic decisions, understanding various financing options, and managing financial risks in an increasingly complex business environment.
3. ***Integrating sustainability criteria into all areas of the economic system*****:** In line with global sustainable development trends, this objective involves embedding environmental, social, and governance (ESG) principles into economic and financial processes. The focus will be on promoting green, eco-innovative projects and stimulating investments that contribute to environmental protection, social responsibility, and good governance across all economic sectors.

These strategic directions aim to support the development of a resilient economic system, capable of responding to current and future challenges and facilitating the country’s integration into a more resilient and sustainable global economy.

The conducted research allowed the author to formulate recommendations meant to contribute to strengthening the national financial framework and gradually integrating modern financing modes in the Republic of Moldova:

1. ***Elaborate a National Strategy on Sustainable Financing*** to set clear objectives and specific measures for integrating sustainability principles into all economic sectors. This strategy should include concrete directions for stimulating innovative and sustainable projects, with the overall aim of transitioning to a green and resilient economy.
2. ***Align the regulatory and legislative framework*** with that of the European Union to stimulate the development of financial products aimed at innovative and responsible investments. Adjusting the regulatory framework for crowdfunding is necessary to ensure effective supervision, investor protection, and encourage market transparency and competitiveness.
3. ***Revise, amend, and adopt the draft law on Venture Capital Funds,*** elaborated in 2018, to support startups and innovative enterprises, thereby stimulating financing through venture capital and attracting investors into the local economy.
4. ***Implement the concept of sustainable financing*** within the national financial system by promoting instruments such as green loans, green mortgages, green bonds, and sustainable bonds.
5. ***Apply the non-financial analysis model based on ESG criteria,*** developed by the author, for the self-assessment of credit institutions and economic entities, in order to encourage responsible financing of innovative and sustainable projects aligned with sustainable development goals.

6. ***Develop a national taxonomy for sustainable financing,*** which would set clear criteria for classifying eco-innovative projects. Similarly, it is proposed to integrate ESG factors into the business strategies and models of credit institutions and economic entities, as part of aligning with national and European sustainable development objectives.
7. ***Offer fiscal incentives*** for sustainable investments to encourage economic actors to adopt principles of corporate, social, and environmental responsibility by promoting best international practices.
8. ***Apply the econometric model for evaluating creditworthiness and business eligibility*** when accessing financing through modern methods such as factoring, crowdfunding, and sustainable financing. The developed model provides an analytical basis for credit decision-making and reducing associated risks.

Implementing these recommendations will contribute to consolidating a resilient, competitive national financial system aligned with international, particularly European Union, standards, thus facilitating the transition to an innovative, sustainable, and digital economy.

BIBLIOGRAPHY

1. BĂNCILĂ N., POPOVICI A., Constrângeri și oportunități de finanțare a entităților din Republica Moldova, *Revista / Journal „ECONOMICA” nr.3 (121) 2022, p.74-90.* Available: https://doi.org/10.53486/econ.2022.121.074 (citat 24.09.2024)

2. BUMBAC D., Finanţările prin capital de risc: oportunităţi şi tendinţe europene, Conferința internațională «Dezvoltarea economico-socială durabilă a euroregiunilor şi a zonelor transfrontaliere, IASI, Performantica, 2020,p.79-87/ Available: https://ibn.idsi.md/sites/default/files/imag_file/Iasi.volum%20ESPN%2037.pdf (citat 10.09.202

3. BUMBAC D., HÎNCU L., Model de evaluare a potențialilor clienți ai instituțiilor de credit, beneficiari ai finanțării prin factoring, Studia Universitatis Moldaviae, 2019, nr.2 (112) ISSN 1857-2073 ISSN online 2345-1033 p.153-158

4. Dicționar explicativ al limbii române. Available: https://dexonline.ro/definitie/specific (citat 09.08.2024)

5. SONDAJ realizat de Banca Națională a României privind accesul la finanțare al companiilor nefinanciare din România august 2020. Available: https://www.bnro.ro/DocumentInformation.aspx?idDocument=41332&idInfoClass=15748 (citat 09.08.2024)

6. STUDIU de impact cu privire la înființarea și operaționalizarea unui fond de investiții cu capital de risc, Academia Română, Creșterea capacității administrative a Ministerului pentru Mediul de Afaceri, Comerț şi Antreprenoriat de dezvoltare şi implementare a sistemului de politici publice bazate pe dovezi" - SIPOCA 5, București 2018, 576 p.

7. ГАМБЕЕВА Ю.Н., КОЖУХОВА Н. Н. Краудфандинг как инновационный финансовый инструмент цифровой экономики: национальные модели, Государственное управление. Электронный вестник Выпуск № 77, Декабрь 2019, с.6-32. Available: http://e-journal.spa.msu.ru/uploads/vestnik/2019/vipusk__77._dekabr_2019_g./gambeeva_kozhukhova.pdf (citat 20.09.2024)

8. ДАНИЛОВ Ю. Устойчивые финансы: новая теоретическая парадигма. Мировая экономика и международные отношения, 2021, т. 65, № 9, сс. 5-13. Available: https://doi.org/10.20542/0131-2227-2021-65-9-5-13 (citat 15.10.2024)

9. ЕМЕЛЬЯНОВ В., Развитие деятельности факторинговых компаний на российском финансовом рынке, Диссертация на соискание учёной степени кандидата экономических наук, спец. 08.00.10, "Финансовый Университет при Правительстве Российской Федераций". Москва 2016, 195 с.

10. ЛАСКИНА Л.Ю., ПОГОСТИНСКАЯ Н.Н. Сравнительная характеристика инновационных форм финансирования бизнеса, Научный журнал НИУ ИТМО. Серия «Экономика и экологический менеджмент» № 3, 2014, с.267-278/ Available: https://cyberleninka.ru/article/n/sravnitelnaya-harakteristika-innovatsionnyh-form-finansirovaniya-biznesa (citat 12.09.2024)

11. Accès au financement - comparaison internationale Available: https://economie.fgov.be/fr/acces-au-financement (citat 21.02.2024)

12. Annual review Factor-Chain International, 2023. Disponibil: https://fci.nl/en/annual-review?language_content_entity=en (citat 10.09.2024).

13. Banque de France Enquête sur l’accès des entreprises au financement: poursuite du durcissement des conditions de financement déclarées. Available: https://www.banque-france.fr/fr/communiques-de-presse/enquete-sur-lacces-des-entreprises-au-financement-poursuite-du-durcissement-des-conditions-de (citat 24.09.2024)

14. Big swings in 2023, but global sustainable finance remains in rude health. Available: https://think.ing.com/articles/big-swings-in-2023-but-global-sustainable-finance-remains-in-rude-health/#a11 (citat 10.10.2024)
15. Climate Bonds Initiatives. Available: https://www.climatebonds.net/market/data/ (citat 20.09.2024)
16. L'affacturage, un secteur en pleine mutation. [online] Disponibil https://group.bnpparibas/actualite/laffacturage-un-secteur-en-pleine-mutation
17. Finance verte: mieux comprendre l-econnomie responsable. [online] Disponibil: /https://www.3vfinance.com/infinance-le-blog/fr/tout-savoir-sur-la-finance-verte [citat 22.09.2024]
18. IMBERT H., La finance verte Les nécessaires adaptations à mener pour saisir un nouveau levier de croissance. [online] Disponibil: https://www.noveoconseil.com/wp-content/uploads/2021/07/Finance-verte-3.pdf/ [citat 22.08.2024]

LIST OF THE AUTHOR'S SCIENTIFIC PUBLICATIONS ON THE THESIS

Articles in scientific journals

1. BUMBAC Daniela, Modalități moderne de finanțare: particularități și oportunități. In: *Relaţii internaţionale. Plus*. 2019, nr. 2(16), pp. 130-140. ISSN 1857-4440. Disponibil: https://ibn.idsi.md/ro/vizualizare_articol/99239

2. BUMBAC Daniela; HÎNCU, Lilian Model de evaluare a potențialilor clienți ai instituțiilor de credit, beneficiari ai finanțării prin factoring, Studia Universitatis Moldaviae_2019, nr.2(122) ISSN online 2345-1033 p.153-158 https://oaji.net/pdf.html?n=2019/2054-1565859758.pdf

3. BUMBAC Daniela, Sectorul financiar-nebancar al Republicii Moldova: realități și soluții de reformare, Moldoscopie, Probleme de analiză politică ISSN 1812-2566 An. 23 (2019), nr. 3 (86), p.153-162 Disponibil: https://doi.org/10.5281/zenodo.4088254

4. BUMBAC Daniela, Conceptul, tipologia și principalele aspecte ale reglementarii factoringului pe plan international, Studia Universitatis Moldaviae_2018, nr.2(112) ISSN online 2345-1033 p.85-91 Disponibil: https://ibn.idsi.md/ro/vizualizare_articol/67716

5. BUMBAC Daniela; ŞTEFANIUC, Olga Tendințele dezvoltării factoringului în spațiul Uniunii Europene, Studia Universitatis Moldaviae 2017, nr.7(107), ISSN online 2345-1033 p.61-67, Disponibil: https://ibn.idsi.md/vizualizare_articol/60682

6. BUMBAC Daniela, Particularitățile dezvoltării pieței factoringului în Franța, Studia Universitatis Moldaviae 2017, nr.7(107) ISSN online 2345-1033 p.68-71, Disponibil: https://ibn.idsi.md/vizualizare_articol/60683

7. BUMBAC Daniela, & STEFANIUC Olga, (2021). *Venture capital financing: particularities and opportunities.* International Journal of Innovative Technologies in Economy, (2(34). Disponibil: *https://doi.org/10.31435/rsglobal_ijite/30062021/7544*

Articles in conference proceedings and other scientific events included in other databases accepted by ANACEC

8. BUMBAC D., Finanțarea sustenabilă: oportunități și tendințe europene. În. *Modern paradigms in the development of the national and world economy*, Ed. 1, 24-26 octombrie 2024, Chişinău. ISBN 978-9975-62-770-2

9. BUMBAC D. Integrarea factorilor ESG în activitatea instituțiilor de credit. Conferința națională cu participare internațională *Integrare prin cercetare si inovare.: Științe juridice și economice,* 10-11 noiembrie 2022, Chișinău. Chisinau, Republica Moldova: Centrul Editorial-Poligrafic al USM, 2022, SJE, pp. 385-387. ISBN 978-9975-62-472-5, Disponibil: https://ibn.idsi.md/ro/vizualizare_articol/174565

10. BUMBAC D., ŞTEFANIUC O., Bonitatea debitorului – particularități de evaluare și prevenire a riscului de credit, Conferința "Modern paradigms in the development of the national and world economy", Chişinău, Moldova, 29-30 octombrie 2021

11. BUMBAC D. Crowdfundingul – modalitate modernă de finanțare în era digitalizării. In: Modern paradigms in the development of the national and world economy, 29-30 octombrie 2021, Chişinău. Chişinau, Moldova: Centrul Editorial-Poligrafic al USM, 2021, pp. 164-171. ISBN 978-9975-158-88-6

12. BUMBAC D., ŞTEFANIUC O., Finanţările prin capital de risc: oportunităţi şi tendinţe Europene. In: *Dezvoltarea economico-socială durabilă a euroregiunilor şi a zonelor transfrontaliere*.

Vol.37, 30 octombrie 2020, Iași, România. Iași, România: Performantica, 2020, pp. 79-87. ISBN 978-606-685-742-0. https://ibn.idsi.md/ro/vizualizare_articol/113662

13. BUMBAC D., ŞTEFANIUC O., Credit system of the Republic of Moldova: current problems and development perspectives. In: *Dezvoltarea economico-socială durabilă a euroregiunilor şi a zonelor transfrontaliere*. Vol.35, 25 octombrie 2019, Iași, România. Iași, România: Performantica, 2019, pp. 52-58. ISBN 978-606-685-687-4. https://ibn.idsi.md/vizualizare_articol/94909

14. BUMBAC D., Fondurile europene cu capital de risc: concepte și particularități. In: *Problemele socioeconomice ale Republicii Moldova: reflecții, sugestii*. Vol.5, 1 decembrie 2020, Chişinău. Chişinău: Centrul Editorial-Poligrafic al USM, 2020, pp. 111-119. https://ibn.idsi.md/ro/vizualizare_articol/118434

15. БУМБАК Д., Венчурное финансирования в США, Збірник матеріалів III Міжнародної науково-практичної конференції, присвяченої 100-річчю Університету державної фіскальної служби України «Економічні перспективи підприємництва в Україні», 10–11 жовтня 2019 року, Університет ДФС України, 2019, с. 92-94, 0,2 с.а, ISBN 978-966-337-548-9

16. BUMBAC D. Mezaninul financiar - noua tehnica alternativa pentru finantarea afacerilor. în Politici si mecanisme de inovare si dezvoltare a proceselor economico-financiare si sociale in plan national si international: conferinta stiintifica internationala, 31 octombrie-1 noiembrie 2014. Editia a IX. - Chisinau, 2014. - P. 178-181, ISBN:978-9975-71-574-4

17. BUMBAC D. Creditul sindicalizat - noua practică modernă a băncilor comerciale. În: Materialele Conferinţei Ştiinţifice Internaţionale „Inovaţii, performanţă şi competitivitate în sectorul financiar" organizată în parteneriat cu Universitatea «Alexandru Ioan Cuza» din Iaşi, Romania, Universitatea de Stat Ivane Javakhishvili din Tbilisi, Georgia, Comisia Naţională a Pieţei Financiare, Republica Moldova, 30-31 octombrie 2015, Chisinău, USM, p.166-172, ISBN 978-9975-71-712-0

18. BUMBAC D. Particularităţi şi tendinţe actuale ale pieţei factoringului în România. În: Materialele Conferinţei Ştiinţifice Internaţionale, ediţia a X-a «Priorităţi strategice de modernizare inovaţională a economiei Republicii Moldova şi politici de dezvoltare durabilă la nivel mondial» 30-31 octombrie 2015, Chişinău, USM, p.277-282, ISBN 978-9975-71-711-3

19. ŞTEFANIUC O., BUMBAC D. Analiza gestiunii riscului de credit în băncile comerciale şi posibilităţi de reabilitare a creditelor neperformante. În: Materialele Conferinţei Ştiinţifice Internaţionale „Inovaţii, performanţă şi competitivitate în sectorul financiar", 30-31 octombrie 2015, Chisinău, USM, p.156-165, ISBN 978-9975-71-712-0;

20. ŞTEFANIUC O., BUMBAC D. La titrisation – caracteristiques, avantages et risqué. În: Materialele Conferinţei Ştiinţifice Internaţionale, ediţia a X-a «Priorităţi strategice de modernizare inovaţională a economiei Republicii Moldova şi politici de dezvoltare durabilă la nivel mondial» 30-31 octombrie 2015, Chişinău, USM, p.201-207, ISBN 978-9975-71-711-3

ADNOTARE

Bumbac Daniela, „Modalități moderne de finanțare: practici internaționale și oportunități pentru Republica Moldova"

Teza de doctor în științe economice, Specialitatea: 522.01. Finanțe, Chişinău, 2025

Structura tezei: introducere, trei capitole, concluzii generale şi recomandări, bibliografia din 252 de titluri, 156 de pagini de text de bază, inclusiv 39 de figuri, 23 de tabele și 27 anexe. Cercetările efectuate sunt reflectate în 20 publicaţii ştiinţifice.

Cuvinte cheie: sistem financiar, modalitate modernă de finanțare, factoring, crowdfunding, finanțare prin capital de risc, instituție de credit, credit bancar, finanțare sustenabilă, sustenabilitate, risc de credit.

Scopul cercetării: fundamentarea teoretico-metodologică a modalităților moderne de finanțare, elaborarea instrumentelor de evaluare a eligibilității și sustenabilității debitorului, în vederea facilitării accesului entităților din Republica Moldova la resurse financiare alternative și formularea recomandărilor pentru diversificarea modalităților de finanțare în Republica Moldova, aliniate cu tendințele internaționale și obiectivele de dezvoltare durabilă.

Obiectivele cercetării: fundamentarea conceptuală a modalităților moderne de finanțare și delimitarea acestora în raport cu modalitățile tradiționale de finanțare; studierea legăturii dintre teoriile financiare și modalitățile moderne de finanțare; analiza comparativă a practicii internaționale și celei din Republica Moldova privind mobilizarea resurselor financiare prin modalități moderne de finanțare; identificarea modalităților moderne de finanțate aplicabile în Republica Moldova; elaborarea instrumentarului analitic pentru evaluarea bonității și eligibilității afacerilor în contextul accesării surselor prin modalități moderne de finanțare; elaborarea metodologiei de evaluare nonfinanciară, destinată analizei profilului de sustenabilitate al debitorului în procesul de accesare a modalităților moderne de finanțare;formularea recomandărilor privind integrarea treptată a modalităților moderne de finanțare în sistemul financiar național, în corelare cu agenda de realizare a obiectivelor de dezvoltare durabilă și facilitarea accesului afacerilor la finanțare alternativă.

Noutatea şi originalitatea ştiinţifică: precizarea conceptului de „modalitate modernă de finanțare" și elaborarea unei clasificări sistematizate a modalităților de finanțare în baza abordărilor evolutive, cu evidențierea particularităților și avantajelor modalităților moderne față de cele tradiționale; identificarea constrîngerilor dezvoltării modalităților moderne de finanțare în Republica Moldova comparativ cu cele din spațiul european; elaborarea și validarea modelului de evaluare financiară a bonității clienților persoane juridice, aplicabil în procesul de acesare a resurselor financiare oferite prin alte modalități de finanțare decât creditul bancar; elaborarea și implementarea modelului de evaluare nefinanciară a debitorilor, persoane juridice ai băncii, în baza criteriilor de sustenabilitate (ESG), aplicabil în cadrul finanțării sustenabile; determinarea oportunităților și constrângerilor privind dezvoltarea modalităților moderne de finanțare în Republica Moldova, cu accent pe potențialul finanțării sustenabile și pe specificul economiei autohtone; identificarea și formularea propunerilor privind elaborarea și ajustarea cadrului normativ național privind finanțările participative și celui destinat finanțărilor sustenabile în vederea facilitării accesului la finanțare pentru mediul de afaceri; stabilirea noilor direcții de dezvoltare a modalităților moderne de finanțare în cadrul sistemului financiar național.

Rezultatele obţinute care contribuie la soluţionarea problemei ştiinţifice importante: fundamentarea teoretico-metodologică a modalităților moderne de finanțare și stabilirea direcțiilor prioritare de dezvoltare a acestora în cadrul sistemului financiar național, în vederea promovării unui sistem economic sustenabil, în condițiile noii conjuncturi internaționale și regionale.

Semnificaţia teoretică a cercetării constă în cercetarea și dezvoltarea conceptelor de modalitate modernă de finanțare, respectiv factoring, crowdfunding, finanțare prin capital de risc și finanțare sustemabilă; determinarea și clasificarea modalităților moderne de finanțare; scoaterea în evidență a rolului, particularităților specifice și tendințele actuale de dezvoltare a factoring-ului, crowdfunding-ului, finanțării prin capital de risc și finanțării sustenabile pe plan internațional; analiza integrării criteriilor de sustenabilitate în procesul decizional de finanțare al băncilor; dezvoltarea conceptului de finanțare sustenabilă și finanțare verde în cadrul sistemului financiar bancar național.

Valoarea aplicativă a lucrării constă punerea în practică a recomandărilor propuse pentru ajustarea cadrului normativ-legislativ în domeniul organizațiilor de creditare nebancare, asigurarea reglementărilor în domeniul finanțării prin capitalul de risc, finanțării participative; elaborarea modelului de evaluare a bonității potențialilor clienți ce solicită finanțarea la termen implementarea modelului de evaluare a criteriilor de sustenabilitate (ESG) în procesul decizional de finanțare al băncilor autohtone, fundamentarea direcțiilor de dezvoltare a sistemului financiar bancar în contextul asigurării dezvoltării economice durabile.

Implementarea rezultatelor ştiinţifice: Cele mai importante rezultate ale cercetării au fost transmise și acceptate pentru implementare de către Comisia economie, buget și finanțe a Parlamentului Republicii Moldova, Banca Națională a Moldovei, BC „Moldindconbank" S.A.

ANNOTATION

Bumbac Daniela, „Modern financing modalities: international practices and opportunities for the Republic of Moldova”

Doctor's thesis in economics, Specialty: 522.01. Finance, Chisinau, 2025

Thesis structure: introduction, three chapters, general conclusions and recommendations, bibliography of 252 titles, 156 pages of basic text, including 39 figures, 23 tables and 27 annexes. The research conducted is reflected in 20 scientific publications.

Keywords: financial system, modern financing method, factoring, crowdfunding, venture capital financing, credit institution, bank credit, sustainable financing, sustainability, credit risk.

The purpose of the research theoretical and methodological substantiation of modern financing methods, development of tools for assessing the eligibility and sustainability of the debtor, in order to facilitate access of entities from the Republic of Moldova to alternative financial resources and formulation of recommendations for diversifying financing methods in the Republic of Moldova, aligned with international trends and sustainable development objectives.

Research objectives: conceptual substantiation of modern financing methods and their delimitation in relation to traditional financing methods; studying the connection between financial theories and modern financing methods; comparative analysis of international and Moldovan practice regarding the mobilization of financial resources through modern financing methods; identification of modern financing methods applicable in the Republic of Moldova; development of analytical tools for assessing the creditworthiness and eligibility of businesses in the context of accessing sources through modern financing methods; development of a non-financial assessment methodology, intended for analyzing the sustainability profile of the debtor in the process of accessing modern financing methods; formulation of recommendations regarding the gradual integration of modern financing methods into the national financial system, in correlation with the agenda for achieving sustainable development goals and facilitating business access to alternative financing.

Scientific novelty and originality: specifying the concept of "modern financing method" and developing a systematized classification of financing methods based on evolutionary approaches, highlighting the peculiarities and advantages of modern methods over traditional ones; identifying the constraints on the development of modern financing methods in the Republic of Moldova compared to those in the European space; developing and validating the financial assessment model of the creditworthiness of legal entity clients, applicable in the process of accessing financial resources offered through financing methods other than bank credit; developing and implementing the non-financial assessment model of the bank's legal entity debtors, based on ESG criteria, applicable within the framework of sustainable financing; identifying and formulating proposals for the development and adjustment of the national regulatory framework for participatory financing and for sustainable financing in order to facilitate access to financing for the business environment; establishing new directions for the development of modern financing methods within the national financial system.

The results obtained that contribute to solving the important scientific problem: theoretical and methodological substantiation of modern financing methods and establishing priority directions for their development within the national financial system, in order to promote a sustainable economic system, in the conditions of the new international and regional context.

The theoretical significance of the thesis consists in the research and development of modern financing concepts, namely factoring, crowdfunding, risk capital financing and sustainable financing; determining and classifying modern ways of financing; highlighting the role, specific features and current development trends of factoring, crowdfunding, venture capital financing and sustainable financing on an international level; analysis of the integration of sustainability criteria in the banks' financing decision-making process; developing the concept of sustainable financing and green financing within the national financial banking system.

The applicative value of the work is the implementation of the proposed recommendations for adjusting the normative-legislative framework in the field of non-bank lending organizations in aspects related to the supervisory authority, minimum capital, transparency and reporting, according to the European Union and Romania's model, ensuring the regulations in the field of financing through risk capital, participatory financing, the development of the evaluation model for potential clients requesting term financing, the implementation of the evaluation model of sustainability criteria (ESG) in the decision-making process of financing of domestic banks, the foundation of the development directions of the banking financial system in the context of ensuring sustainable economic development.

Implementation of scientific results: The most important results of the research were submitted and accepted for implementation by the Economy, Budget and Finance Commission of the Parliament of the Republic of Moldova, the National Bank of Moldova, BC "Moldindconbank" S.A

АННОТАЦИЯ

Бумбак Даниела, „Современные методы финансирования: международная практика и возможности для Республики Молдова", докторская диссертация по экономике, специальность: 522.01 – Финансы, Кишинев, 2025

Структура диссертации: введение, три главы, общие выводы и рекомендации, библиография 251 наименований, 156 страницы основного текста, включая 39 рисунка, 23 таблиц и 27 приложений. Исследования отражены в 20 научных публикациях.

Ключевые слова: финансовая система, современный метод финансирования, факторинг, краудфандинг, венчурное финансирование, кредитная организация, банковский кредит, устойчивое финансирование, устойчивость, кредитный риск.

Цель исследования теоретическое и методологическое обоснование современных методов финансирования, разработка инструментов оценки платежеспособности и устойчивости заемщика в целях облегчения доступа субъектов Республики Молдова к альтернативным финансовым ресурсам и формулирование рекомендаций по диверсификации методов финансирования в Республике Молдова, соответствующих международным тенденциям и целям устойчивого развития.

Задачи исследования: концептуальное обоснование современных методов финансирования и их разграничение по отношению к традиционным методам финансирования; изучение связи финансовых теорий и современных методов финансирования; сравнительный анализ международной практики и практики Республики Молдова по мобилизации финансовых ресурсов с использованием современных методов финансирования; разработка аналитических инструментов для оценки кредитоспособности и соответствия предприятий требованиям в контексте доступа к источникам финансирования; разработка методологии нефинансовой оценки, предназначенной для анализа профиля устойчивости должника в процессе доступа к современным методам финансирования; разработка рекомендаций по постепенной интеграции современных методов финансирования в национальную финансовую систему в соответствии с повесткой дня по достижению целей устойчивого развития и облегчению доступа бизнеса к альтернативному финансированию.

Научная новизна и оригинальность: уточнение понятия «современный метод финансирования» и разработка систематизированной классификации методов финансирования на основе эволюционных подходов, выделение особенностей и преимуществ современных методов перед традиционными; выявление ограничений в развитии современных методов финансирования в Республике Молдова по сравнению с европейским пространством; разработка и проверка модели финансовой оценки кредитоспособности клиентов - юридических лиц, применимой при доступе к финансовым ресурсам, предоставляемым с использованием иных, чем банковский кредит, методов финансирования; разработка и внедрение модели нефинансовой оценки заемщиков банка — юридических лиц на основе критериев устойчивости (ESG), применимых в рамках устойчивого финансирования; выявление и формулирование предложений по разработке и корректировке национальной нормативной базы для финансирования участия и устойчивого финансирования; создание новых направлений развития современных методов финансирования в национальной финансовой системе.

Полученные результаты способствуют решению важной научной задачи: теоретико-методологического обоснования современных методов финансирования и установления приоритетных направлений их развития в национальной финансовой системе в целях обеспечения устойчивости экономической системы в условиях нового международного и регионального контекста.

Теоретическая значимость работы заключается в исследовании и разработке концепций современных методов финансирования, а именно факторинга, краудфандинга, финансирования рискового капитала и устойчивого финансирования; определение и классификация современных способов финансирования; освещение роли факторинга, краудфандинга, венчурного финансирования и устойчивого финансирования на международном уровне; анализ интеграции критериев устойчивости в процесс принятия банками решений о финансировании; разработка концепции устойчивого финансирования в национальной финансово-банковской системе.

Прикладная ценность диссертации заключается во внедрении предложенных рекомендаций по корректировке нормативно-законодательной базы в сфере небанковских кредитных организаций, обеспечение регулирования в области финансирования через рисковый капитал, краудфандинг, разработка модели оценки для потенциальных клиентов, запрашивающих срочное финансирование, внедрение модели оценки критериев устойчивости (ESG) при принятии решений, основы направления развития банковской финансовой системы в контексте обеспечения устойчивого экономического развития**.**

Внедрение научных результатов: наиболее важные результаты исследований были представлены и приняты к внедрению Комиссией по экономике, бюджету и финансам Парламента Республики Молдова, Национальным банком Молдовы и КБ Молдиндконбанк АО.

BUMBAC DANIELA

MODERN FINANCING METHODS: INTERNATIONAL PRACTICES AND OPPORTUNITIES FOR THE REPUBLIC OF MOLDOVA

Specialty: 522.01. Finance

Abstract of the doctoral thesis in economic sciences

Approved for printing:25.04.2025 Offset paper. Offset printing Printing sheets: 2.7	Format: 60x84 1/16 Printing 15 copies Order no.:6/25

Editorial-Printing Center of the
Moldova State University
Str. Alexei Mateevici, 60
MD-2009, Chisinau