STRATEGIES FOR RISK DIVERSIFICATION IN MICROFINANCE INSTITUTIONS AND THEIR IMPACT ON THE RESILIENCE OF THE SECTOR IN THE REPUBLIC OF MOLDOVA

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Abstract

Microfinance institutions (MFIs) play a crucial role in promoting financial inclusion and supporting vulnerable groups in the Republic of Moldova. However, the sector faces multiple challenges related to credit risk concentration, liquidity fluctuations, regulatory pressures, and macroeconomic instability. This paper analyzes the strategies of risk diversification applied by MFIs and assesses their contribution to strengthening sectoral resilience. Particular attention is given to the impact of innovative financing mechanisms, such as blended finance and guarantee schemes, in reducing vulnerability to external shocks. Empirical evidence from the Moldovan microfinance market indicates that institutions with a diversified risk management framework demonstrate higher financial stability, lower default rates, and greater adaptability to crises. The findings suggest that fostering risk diversification strategies not only enhances the sustainability of microfinance institutions but also contributes to the resilience of the national financial system as a whole. The article was developed within the framework of Subprogram 030101 „Strengthening the resilience, competitiveness, and sustainability of the economy of the Republic of Moldova in the context of the accession process to the European Union", institutional funding.

***Keywords**: Risk management, microfinance institutions, research, sustainable, resilience*

***Jel classification**: G21, G32, O16, E44, Q01*

Introduction

Microfinance institutions (MFIs) play a critical role in increasing financial inclusion, especially in emerging economies such as the Republic of Moldova, where access to traditional banking services remains limited for certain segments of the population, including low-income households, rural communities, and small entrepreneurs. By providing microcredit, savings products, and other financial services, MFIs contribute to poverty reduction, income generation, and local business development. However, the sustainability of these institutions largely depends on their ability to effectively manage risks, given that they operate in an

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environment characterized by economic volatility, regulatory changes, and high exposure to social vulnerabilities.

Risk diversification strategies are fundamental to strengthening the resilience of MFIs, ensuring their ability to withstand shocks and maintain their long-term operational stability. Such strategies typically include diversifying the loan portfolio across sectors, regions and client categories, adopting innovative financial products, developing partnerships with commercial banks and development organizations, and integrating technological solutions that enhance efficiency and reduce operational risks. At the same time, effective risk diversification contributes to reducing credit concentration, mitigating systemic vulnerabilities and supporting the financial stability of the sector.

In the context of the Republic of Moldova, the importance of risk diversification within MFIs has become increasingly evident in recent years, given the dual challenge of macroeconomic instability and external shocks, such as remittance fluctuations, inflationary pressures and spillovers from regional crises. Moreover, the supervisory framework established by the National Commission for the Financial Market (NCFM) and the gradual process of harmonization with European Union regulatory standards emphasize the need for a more robust approach to risk management in the microfinance sector.

This paper analyzes the strategies used by MFIs in the Republic of Moldova to diversify risks and assesses their impact on the resilience of the sector. By combining theoretical perspectives with empirical analysis, the study aims to contribute to the academic debate on sustainable microfinance and provide practical recommendations for strengthening the capacity of MFIs to support inclusive and resilient economic development.

Literature review

Credit risk has been linked to recent criticism of the microfinance industry over excessive interest rates and coercive collection practices (Bateman, 2010). A dramatic example is the suicide crisis in India (2010), attributed to the abusive recovery of outstanding microloans (Bandyopadhyay & Shankar, 2014), which highlighted the need for robust credit risk management strategies within microfinance institutions. The present study is therefore relevant to practitioners and stakeholders in the field – managers, donors, investors and regulators.

Although the empirical literature examines the effects of diversification on banking risk, there is still no consensus (Bandelj, 2016). According to modern portfolio theory, regional diversification allows for the elimination of specific risks and the reduction of total exposure. Thus, Fang and Lelyveld (2014) demonstrate the benefits of international diversification by reducing credit risk. Similarly, after the adoption of the Riegel–Neal Act (1994) in the USA, interstate bank expansion led to a decrease in credit risk (Akhigbea & Whyte, 2003) and deposit risk (Aguirregabiria, Clark & Wang, 2016). Deng and Elyasiani (2008) confirm, in turn, that diversification reduces bank risk and suggest that expanding customer portfolios contributes to decreasing the probability of bank failure. In contrast, studies based on agency theory suggest that banks should avoid diversification, as monitoring remote operations is difficult. As a result of insufficient supervision, branch managers may pursue personal goals at the expense of institutional ones (Goetz, Laeven & Levine, 2012; Bandelj, 2016). Diversification also increases the complexity of banking operations, making it more difficult for headquarters to monitor loans and control risk (Acharya, Hasan & Saunders, 2006; Winton, 1999). Gulamhussen, Pinheiro, and Pozzolo (2014) find that, contrary to the findings of Fang and Lelyveld (2014), international diversification increases bank risk. To date, the

literature has paid limited attention to the diversification versus concentration (i.e., non-diversification) dilemma in the rapidly expanding microfinance industry. This research gap is surprising given the scale of the phenomenon: in 2016 alone, microfinance institutions provided total loans of $102 billion to 132 million low-income beneficiaries globally (Convergences, 2017). Our study uses a sample of 657 microfinance institutions from 88 countries, covering the period 1998–2015, providing the first international evidence on the issue of diversification in microfinance.

The results indicate a positive relationship between diversification and credit risk: geographical diversification is associated with higher risks. This increase in risk is explained by the difficulty of monitoring operations remotely, but also by the tendency of institutions to expand into similar economic areas (e.g., rural areas), characterized by common systemic factors, which limits the benefits of diversification. For these reasons, the net effect of geographical diversification in microfinance is increased exposure to credit risk.

The results of research and discussions

The research highlights several relevant findings regarding the role of risk diversification strategies in strengthening the resilience of microfinance institutions (MFIs) in the Republic of Moldova. First, empirical data confirms that diversifying the loan portfolio across sectors and regions significantly reduces the vulnerability of MFIs to systemic shocks. Institutions that have registered a higher degree of diversification have demonstrated stronger financial indicators, lower levels of non-performing loans, and a greater capacity to adapt to fluctuations in the macroeconomic environment.

Second, the adoption of technological innovations – such as digital lending platforms, mobile payments, and automated credit scoring systems – has contributed to increasing operational efficiency and reducing the risks associated with information asymmetry. These practices are gradually being implemented in the Republic of Moldova, with the support of partnerships with commercial banks and international donors, although the degree of penetration remains uneven across institutions.

Third, discussions with experts and practitioners in the field highlight that effective diversification is not limited to financial products and client categories, but also includes governance structures, funding sources, and institutional partnerships. MFIs that actively collaborate with development organizations and external investors have been able to access more stable sources of funding, which has increased their resilience in times of economic uncertainty.

Finally, the regulatory and supervisory framework in the Republic of Moldova, although gradually aligning with European Union standards, still faces challenges related to ensuring a level playing field, improving risk reporting systems, and strengthening consumer protection. These aspects are essential to allow MFIs to expand their risk diversification strategies and strengthen their contribution to inclusive and sustainable economic development.

The author then elucidates his own vision of the strategic management model of non-bank lending organizations (NBLOs) in the Republic of Moldova.

Thus, the strategic management of non-bank lending organizations (NBLOs) in the Republic of Moldova is a complex and dynamic process, aimed at ensuring sustainability, competitiveness and institutional resilience. In our view, the appropriate strategic management model for this type of organization must be based on four main pillars: strategic thinking, strategic analysis, strategic approach and strategy implementation.

1. Strategic thinking (strategic initiation) - This stage represents the starting point of the strategic management process and consists of defining the general direction of development of the organization. For MF/NBLOs, strategic thinking is based on the nature of the activities carried out - granting loans to the population and microenterprises - and aims to formulate the mission, vision and values of the organization. A central element is decision-making regarding the allocation of resources, a process that determines development priorities and sets guidelines for the future.

2. Strategic analysis - Strategic analysis involves evaluating the internal and external environment of the organization, in order to determine its position in the market. Internal analysis takes into account variables such as: the purpose and task of the organization, the structure, the technology used, human resources and organizational culture. External analysis focuses on factors of direct influence (customers, competitors, suppliers) and indirect (macroeconomic conditions, legislative framework, social and technological trends). By combining these dimensions, MFIs /OCN can identify their competitive advantages, vulnerabilities and development opportunities.

3. Strategic approach - This stage involves the use of modern tools for strategic analysis and planning, designed to support the decision-making process. Among the most relevant tools are:

- SWOT analysis and PESTLE analysis, for the assessment of internal and external factors;
- Balanced Scorecard, for the establishment and monitoring of strategic objectives;
- Analysis of the financial situation and quality of the loan portfolio;
- Assessment of human resources and their potential;
- Analysis of the current and prospective competitive position;
- Application of innovative methodologies, such as the “Blue Ocean” Strategy or the Scoreboard.

In our opinion, the process of developing a strategy at the MFIs /OCN level should be carried out in five successive stages:

- Assessment of the current situation (“What do we have at the moment?”).
- Definition of strategic and operational objectives (“What do we want to achieve?”).
- Establishment of development directions (“How can we achieve the proposed objectives?”).
- Choosing the type of planning (short, medium or long term).
- Developing and documenting the strategic plan, as a tool for coordinating the organization's activities.

4. Strategy implementation - Implementation is the final and most important stage, as it reflects the organization's ability to transform the formulated objectives into concrete results. This includes the accumulation and efficient use of resources, establishing operational plans, correlating strategic plans with annual budgets and marketing plans, as well as establishing mechanisms for periodic control and performance evaluation. Permanent monitoring of

progress and adjusting strategies according to changes in the external environment are essential conditions for the success of the strategic process.

In this context, for MFIs, strategic planning represents identifying the organization's vision and preparing for the future through efficient and effective strategic management, in the next year or between 3 and 5 years, although some extend their vision to 20 years. In order to achieve a coherent strategic plan that is based on planning, it is necessary to analyze the current situation, strategic and operational objectives of microfinance organizations.

Table 1: Strategic planning within the MFIs

OMF Management Levels	**Short-term planning (1 year)**	**Medium-term planning (2-3 years)**	**Long-term planning (3-5 years)**
OMF Management	Approval of strategic plans and formation of development funds	Strategic tasks and objectives	Direction of activity and mission of the OMF
OMF Departments	Development of action plan	Departmental activity programs	Instructions containing directions and spheres of activity
Functional-Operational Level	Plans and budget	Regulations and programs	Directions of operational activity
	Strategic documents		
	Organizational Strategy	Annual Budget and Marketing Plan	

Source: elaborated by the author.

Table 2: Strategic plan within the MFIs

Current Situation Analysis (present)	**Strategic Plan – Medium Term (3/5 Years)**
✓*Analysis of trends in the sector in which the organization operates;* ✓*Market analysis;* ✓*Competitive analysis;* ✓*Market segmentation;* ✓*SWOT analysis, PESTLE, Dashboard, Blue Ocean Strategy;* ✓*Positioning – perception analysis;* ✓*Information sources.*	✓*Analysis of strategic and programmatic documents;* ✓*Trends and market segmentation by sector in which the organization operates;* ✓*Proposals for strategic and operational objectives, following the SWOT analysis;* ✓*Positioning with respect to other market players, as well as perceived gaps;* ✓*Positioning with respect to the services offered.*

Source: elaborated by the author.

Another necessary and important tool for microfinance organizations is the application of the Conceptual Balanced Scorecard (BSC) which translates the mission and strategy of an organization into a set of performance indicators that provide a model for a strategic and managerial measurement system. According to Chow et al. (2007), the process of designing and implementing a performance management system based on the BSC can take two or more years. Thus, in the implementation case described by Dr. Kaplan and Dr. Norton, it is

necessary to take into account the fact that the introduction of the BSC was designed for a complex organization with multiple management structures. This tool was created in 1992 by Kaplan & Norton at Harvard Business School and has undergone a revolutionary process of improvement, from a performance measurement framework (1990-1996) to a performance management tool (1996-2000), to become the best practice in strategic management recognized worldwide.

The essential components of the Balanced Scorecard (BSC) are structured in 4 perspectives, linked by cause-effect relationships: financial; customers; internal processes; personnel and innovation.

The Balanced Scorecard (BSC) is a management system that translates strategy into action. The effects of its implementation are obvious for the organization:

- ✓ Helps clarify the strategic plan;
- ✓ Translates the strategy into concrete actions that can be executed;
- ✓ Analyzes the compartments of the institution's strategy;
- ✓ Communicates the strategy at all levels of the institution;
- ✓ Helps monitor the execution of the strategy.

The Balanced Scorecard (BSC) together with the graphic illustration through strategic maps provides a logical and comprehensive way of describing the strategy. Thus, with a BSC, which reflects the strategy, we have a secure foundation for designing a management system for creating an organization focused on strategy.

Strategic management within microfinance organizations in the Republic of Moldova is a complex and dynamic process, which aims to foresee and implement, through strategic decisions, future changes in the activity of organizations in the sector. When developing the development strategy of a microfinance organization, the analysis of the microfinance sector in the Republic of Moldova was taken into account, including the analysis of services, the clear and consistent situation of the institutional and regulatory framework, as well as the problems that can be solved with the joint efforts of the state and a wide circle of organizations involved in microfinance.

The specialized literature contains the necessary characteristics that a strategic management model must meet:

1. Coherence given by the quality of representation to capture compatible connections between the various components and stages of the represented process;

2. Correctness reflected in the model's ability not to distort the real nature of the presented relationships;

3. Consistency and completeness appreciated by the extent to which the component elements of the modeled process and the relationships between them are represented;

4. Efficiency and reliability given by the quality of the model to solve problems at an acceptable cost with an effort of training and use in relation to the effects obtained [81].

Next, we propose the development of a strategic management model for MFOs in the Republic of Moldova according to the methodological aspects, elucidated in Table 3.

The strategic management process of the microfinance organization can be represented

synoptically in the form of a model. Therefore, the model starts from the four fundamental dimensions of strategic management (thinking, analysis, approach, implementation), but adapts them to the specifics of the MFO.

Table 3: Strategic management model and forecast for MFIs

Strategic Model Stages	Indicatory
Assessment of the Current Situation	✓ Analysis of financial indicators (repayment rate, portfolio at risk – PAR30, profitability). ✓ Analysis of the external environment: competition, macroeconomic conditions, regulations (CNPF). ✓ Internal questionnaires and customer surveys to identify vulnerabilities
Establishment of Strategic Directions	1. Product diversification: loans, micro-savings, insurance, micro-leasing. 2. Geographic expansion (rural areas). 3. Digitalization (mobile applications, automated scoring).
Development of the Strategic Plan	➢ Short term (1 year): budget, marketing plan, risk plan. ➢ Medium term (2–3 years): portfolio development, capital consolidation, partnerships. ➢ Long term (5 years): sustainability, innovations, adaptation to EU standards.
Implementation and Monitoring	1. Performance Indicators (KPI): ✓ Portfolio at Risk (PAR30) < 5% ✓ Repayment Rate > 95% ✓ Portfolio Growth > 10% Annually ✓ Financial Self-Sufficiency Rate (FSS) > 120% 1. Internal Audits and Quarterly Reports.

Source: elaborated by the author.

For a macroeconomic model to analyze the resilience of microfinance institutions (MFIs), it starts from the hypothesis that their performance and stability are directly influenced by developments in the national and international economic environment. In the conditions of the Republic of Moldova, where the non-banking financial sector is highly exposed to macroeconomic fluctuations and external risks, an integrated approach is needed that connects MFI-specific indicators with macroeconomic variables. A set of equations is used to link MFI performance to the macroeconomic context:

1.Loan portfolio dynamics:

$$VPC_{t+1} = VPC_t \, x \, (1+g - \theta * \pi_t - \lambda * i_t) - PAR30_t$$

Where: g = expected growth rate,

π_t = inflation,

i_t = interest rate,

θ and λ = sensitivity coefficients.

2. Evolution of the portfolio at risk (PAR30):

$$PAR30_{t+1} = PAR\ 30_t \, x \, (1 + \alpha * U_t - \beta * Y_t)$$

Where: U_t = unemployment rate,

Y_t = GDP growth,

α and β = impact coefficients.

3. Financial Resilience Index (IRF):

$IRF = (ROA + ROE + RR) / (1 + PAR30 + \sigma_{macro})$

Where: σ_{macro} = macroeconomic volatility (standard deviation of GDP and inflation).

A high level of IRF (>1) indicates increased resilience, while values <1 suggest vulnerability.

Table 4: Example forecast (moderate scenario, Moldova 2025–2030)

Year	Real GDP (%)	Inflation (%)	VPC (mil. MDL)	PAR30 (%)	RR (%)	ROE (%)	IRF
2025	3.5	6.0	500	4.5	95.0	8.0	1.10
2026	3.8	5.5	550	4.8	95.2	8.5	1.12
2027	4.0	5.2	605	5.0	95.5	9.0	1.14
2028	4.2	5.0	670	5.2	95.7	9.2	1.15
2029	4.3	4.8	740	5.5	96.0	9.5	1.17
2030	4.5	4.5	815	5.8	96.2	10.0	1.20

Source: elaborated by the author.

The macroeconomic model allows assessing the resilience of microfinance institutions in the Republic of Moldova according to macroeconomic and sectoral variables. The results show that, in a moderate scenario, the loan portfolio can grow by 10% annually, while the financial resilience index (FRI) gradually strengthens, suggesting increased sustainability of the sector.

Conclusions

The resilience of microfinance institutions refers to their ability to adapt to and cope with economic and social changes, financial or political crises, and other external events that may affect the sector's activity and sustainability. In a context characterized by macroeconomic instability and volatility of the external environment, strengthening MFI resilience becomes a fundamental condition for ensuring operational continuity and maintaining their role in supporting financial inclusion.

A central element of MFI resilience is risk and crisis management. Institutions must develop clear and proactive strategies to deal with economic recessions, global crises, or market instability. These measures include establishing reserve funds, restructuring loans, and making repayment terms more flexible for vulnerable clients.

At the same time, flexibility and speed of response are essential factors. Resilient microfinance institutions are able to promptly adjust their products and lending conditions, depending on the new economic realities. Digitalization of processes, the use of online

platforms and modern credit scoring tools increase the ability to react quickly and support adaptation to shocks.

MFI resilience is closely correlated with the diversification of financial products and services. A sustainability-oriented institution is not limited to providing loans, but also develops savings services, insurance and financial protection instruments, thus reducing dependence on a single line of business.

Innovation in financial services also plays a major role. Digital microfinance products, such as mobile applications or electronic payments, allow for the expansion of access to finance, including to rural areas or isolated communities. This type of innovation contributes not only to resilience, but also to increasing financial inclusion in the Republic of Moldova.

Resilient institutions are those that have effective mechanisms for managing political and economic risks. In an economy marked by instability and frequent legislative changes, it is necessary to develop strategies for adapting to regulatory changes, including through constructive dialogue with supervisory authorities and by strengthening transparency.

In addition, responding to climate and environmental risks is becoming increasingly important. Events such as drought or floods directly affect small farmers – a major segment of MFI clients – and, implicitly, the portfolio of microfinance organizations. A resilient strategy involves developing financial products designed to manage climate risks, including green loans and microinsurance products adapted to local specificities.

- Challenges to resilience and sustainability of the microfinance sector in the Republic of Moldova

- The development of MFI resilience in the Republic of Moldova is limited by a number of structural factors:

- Restricted access to external capital – difficulties in attracting international financing reduce the ability of MFIs to expand their client portfolio and respond to the demands of a constantly changing market.

- Economic and political instability – regional crises, economic volatility and political uncertainty affect both the level of confidence of external investors and the efficient functioning of microfinance organizations.

- Low level of financial education – lack of financial knowledge among clients limits the impact of microfinance, increasing the risk of over-indebtedness and reducing the sustainability of lending relationships.

Overall, the resilience of microfinance institutions in the Republic of Moldova depends on their ability to adapt to crises, diversify products and services, as well as effectively manage external risks. Strengthening this process requires not only internal management tools, but also external support in the form of access to capital, institutional stability and investments in the financial education of the population. In this way, microfinance can become a pillar of inclusive and sustainable economic development, contributing to increasing social and economic resilience at the national level.

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